

DATA, TV & SATELLITE SOLUTIONS

CATALOGUE 2021

FRACARRO

FRACARRO

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HIPER ANTENA

Company

Fracarro

Established in 1933, Fracarro is today one of the most important companies in Europe in the field of reception and distribution of
audio video data signals and active security.
The synergy between the two sectors allows Fracarro to propose integrated solutions for the creation of intelligent buildings and dwellings to connect and interact actively worldwide.
Our aim is to guarantee the supply of high quality products with particular care to all connected services dedicated to the operators within that sector.
Today the company is able to guarantee a comprehensive catalogue of systems in the sector of audio, video and data for the
reception and distribution of AVD signals: terrestrial and satellite antennas, amplifiers, mixers, power supplies, headends and
distribution components.
With the introduction of DTT and having extensive experience in foreign markets, Fracarro is considered a reference point for
solutions relating to the introduction of new technology.

European directives conformity

Fracarro's products are compliant, if applicable, with the following European Directives:

- 2014/53/UE (RED – Apparecchiature Radio)
- 2014/30/UE (EMC – Compatibilità Elettromagnetica)
- 2014/35/UE (LVD – Bassa Tensione)
- 2011/65/UE (RoHS – Restrizione uso Sostanze Pericolose)
- 305/2011 (CPR – Prodotti da costruzione)

As they exceeded tests specified in the technical harmonized standards, carried out by leading accredited laboratories.
Such products are identified by the CE marking.
More info about the Quality Policy on www.fracarro.com.

Attention to the environment

We respect and support the European Directive 2012/19 / EU on waste electrical and electronic equipment (WEEE) and Directive 2013/56 / EU on waste batteries and accumulators.
To guarantee this we have chosen to join Consorzio ReMedia, a primary Collection Organization that guarantees consumers the correct treatment and recovery of WEEE and BATTERIES and the promotion of policies aimed at protecting the environment.

Certifications of the Quality Management System

The Fracarro Quality Management System is oriented towards satisfying the requirements of all the interested parties. To guarantee the achievement of this goal, we have chosen to certify the Quality Management System, according to the requirements of ISO9001: 2015, with a primary Certification Body such as CSQ.

Web site and social network

The Fracarro website allows to be constantly updated on the news and the company's initiatives. In particular, the Technical Assistance section provides useful information to support operators in their professional activity,relying on a direct line with the headquarters staff. Fracarro is also present in the

Technical assistance

Fracarro provides technical assistance to solve any installation problem in the fastest way. The service is available in each Fracarro company, with specialised staff ready to provide information o define projects.
Fracarro is also constantly engaged on the territory with training initiatives, also in collaboration with its customers and partners.

HYPER ANTENA

TV standards

CCIR - Standard

Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz	Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz	Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz
Standard B + G Europe											
Band I				S23	318-326	322	319.25	**Band V**			
E 2	47-54	50.5	48.25	S24	326-334	330	327.25	E38	606-614	610	607.25
E 3	54-61	57.5	55.25	S25	334-342	338	335.25	E39	614-622	618	615.25
E 4	61-68	64.5	62.25	S26	342-350	346	343.25	E40	622-630	626	623.25
Band S				S27	350-358	354	351.25	E41	630-638	634	631.25
S 1	104-111	107.5	105.25	S28	358-366	362	359.25	E42	638-646	642	639.25
S 2	111-118	114.5	112.25	S29	366-374	370	367.25	E43	646-654	650	647.25
S 3	118-125	121.5	119.25	S30	374-382	378	375.25	E44	654-662	658	655.25
S 4	125-132	128.5	126.25	S31	382-390	386	383.25	E45	662-670	666	663.25
S 5	132-139	135.5	133.25	S32	390-398	394	391.25	E46	670-678	674	671.25
S 6	139-146	142.5	140.25	S33	398-406	402	399.25	E47	678-686	682	679.25
S 7	146-153	149.5	147.25	S34	406-414	410	407.25	E48	686-694	690	687.25
S 8	153-160	156.5	154.25	S35	414-422	418	415.25	5G (694MHz)			
S 9	160-167	163.5	161.25	S36	422-430	426	423.25				
S10	167-174	170.5	168.25	S37	430-438	434	431.25	E49	694-702	698	695.25
Band III				S38	438-446	442	439.25	E50	702-710	706	703.25
E 5	174-181	177.5	175.25	S39	446-454	450	447.25	E51	710-718	714	711.25
E 6	181-188	184.5	182.25	S40	454-462	458	455.25	E52	718-726	722	719.25
E 7	188-195	191.5	189.25	S41	462-470	466	463.25	E53	726-734	730	727.25
E 8	195-202	198.5	196.25	**Band IV**				E54	734-742	738	735.25
E 9	202-209	205.5	203.25	E21	470-478	474	471.25	E55	742-750	746	743.25
E10	209-216	212.5	210.25	E22	478-486	482	479.25	E56	750-758	754	751.25
E11	216-223	219.5	217.25	E23	486-494	490	487.25	E57	758-766	762	759.25
E12	223-230	226.5	224.25	E24	494-502	498	495.25	E58	766-774	770	767.25
Band S				E25	502-510	506	503.25	E59	774-782	778	775.25
S11	230-237	233.5	231.25	E26	510-518	514	511.25	E60	782-790	786	783.25
S12	237-244	240.5	238.25	E27	518-526	522	519.25	4G (790MHz)			
S13	244-251	247.5	245.25	E28	526-534	530	527.25				
S14	251-258	254.5	252.25	E29	534-542	538	535.25	E61	790-798	794	791.25
S15	258-265	261.5	259.25	E30	542-550	546	543.25	E62	798-806	802	799.25
S16	265-272	268.5	266.25	E31	550-558	554	551.25	E63	806-814	810	807.25
S17	272-279	275.5	273.25	E32	558-566	562	559.25	E64	814-822	818	815.25
S18	279-286	282.5	280.25	E33	566-574	570	567.25	E65	822-830	826	823.25
S19	286-293	289.5	287.25	E34	574-582	578	575.25	E66	830-838	834	831.25
S20	293-300	296.5	294.25	E35	582-590	586	583.25	E67	838-846	842	839.25
S21	302-310	306	303.25	E36	590-598	594	591.25	E68	846-854	850	847.25
S22	310-318	314	311.25	E37	598-606	602	599.25	E69	854-862	858	855.25

UNDER ANTENNA

CCIR - Standard

Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz	Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz	Channel	Channel frequency MHz	Digital central frequency MHz	Analogue picture carrier MHz
Standard D Russia - OIRT				Standard I South Africa				Standard K French overseas territories			
R 1	48.5-56.5	52.5	49.75	**Band III**				**Band III**			
R 2	58-66	62	59.25	I 4	174-182	178	175.25	K 4	174-182	178	175.25
R 3	76-84	80	77.25	I 5	182-190	186	183.25	K 5	182-190	186	183.25
Band II				I 6	190-198	194	191.25	K 6	190-198	194	191.25
R 4	84-92	88	85.25	I 7	198-206	202	199.25	K 7	198-206	202	199.25
R 5	92-100	96	93.25	I 8	206-214	210	207.25	K 8	206-214	210	207.25
Band III				I 9	214-222	218	215.25	K 9	214-222	218	215.25
R 6	174-182	182	175.25	I 10	222-230	226	223.25				
R 7	182-190	190	183.25	I 11	230-238	234	231.25				
R 8	190-198	198	191.25	I (12)	238-246	242	239.25				
R 9	198-206	206	199.25	I 13	246-254	250	247.25				
R 10	206-214	214	207.25								
R 11	214-222	222	215.25								
R 12	222-230	230	223.25								

Level conversion table (75Ω)

mV	dBµV	dBm	mV	dBµV	dBm
0.10	40	-68.8	12.59	82	-26.8
0.12	42	-66.8	15.85	84	-24.8
0.16	44	-64.8	19.95	86	-22.8
0.20	46	-62.8	25.12	88	-20
0.25	48	-60.8	31.62	90	-18.8
0.31	50	-58.8	39.81	92	-16.8
0.39	52	-56.8	50.12	94	-14.8
0.50	54	-54.8	63.10	96	-12.8
0.63	56	-52.8	79.43	98	-10.8
0.79	58	-50.8	100.00	100	-8.8
1.00	60	-48.8	125.89	102	-6.8
1.26	62	-46.8	158.49	104	-4.8
1.58	64	-44.8	199.53	106	-2.8
2.00	66	-42.8	251.19	108	-0.8
2.51	68	-40.8	316.23	110	1.2
3.16	70	-38.8	398.11	112	3.2
3.98	72	-36.8	501.19	114	5.2
5.01	74	-34.8	630.96	116	7.2
6.31	76	-32.8	794.33	118	9.2
7.94	78	-30.8	1000.00	120	11.2
10.00	80	-28.8			

Comparison noise figure and signal-noise ratio

Noise figure	Kto	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
	dB	4.8	5.4	6.0	6.5	7.0	7.4	7.8	8.1	8.4	8.7	9.0
Noise voltage at 75 Ohm	dBµV	7.1	7.7	8.3	8.8	9.3	9.7	10.1	10.4	10.7	11.0	11.3

NEU ANTENNA POWER

Countries which have completed Analogue Switch Off (ASO)

Country	Standard	Compression	Country	Standard	Compression
Austria	DVB-T/DVB-T2	MPEG-2	Latvia	DVB-T/ DVB-T2	MPEG-4 AVC
Belgium	DVB-T	MPEG-2	Luxemburg	DVB-T	MPEG-2
Croatia	DVB-T	MPEG-2	Norway	DVB-T	MPEG-4 AVC
Czech rep.	DVB-T/DVB-T2	MPEG-2	Netherlands	DVB-T	MPEG-2
Denmark	DVB-T	MPEG-2/MPEG-4	Portugal	DVB-T	MPEG-4 AVC
Estonia	DVB-T/DVB-T2	MPEG-4 AVC	Slovak rep.	DVB-T/DVB-T2	MPEG-2
Finland	DVB-T/DVB-T2	MPEG-2	Slovenia	DVB-T	MPEG-4 AVC
France	DVB-T	MPEG-2/MPEG-4	Spain	DVB-T/DVB-T2	MPEG-2
Germany	DVB-T	MPEG-2	Sweden	DVB-T/DVB-T2	MPEG-2
Ireland	DVB-T	MPEG-2	Switzerland	DVB-T	MPEG-2
Italy	DVB-T/ DVB-T2	MPEG-4 AVC	UK	DVB-T/DVB-T2	MPEG-2
Lithuania	DVB-T/ DVB-T2	MPEG-4 AVC			

Sources: www.digitag.org - www.dvb.org

Main transmission standards

DTT	DVB-T	DVB-T2
Modulation	COFDM	COFDM
Number of sub carriers	2K, 8K	1K, 2K, 4K, 8K, 16K, 32K
Sub carriers modulation	QPSK , 16QAM, 64QAM	QPSK, 16QAM, 64QAM, 256QAM
FEC	1/2 , 2/3 , 3/4 , 5/6 , 7/8	1/2, 3/5, 2/3, 3/4, 4/5 , 5/6
Guard interval	1/4, 1/8, 1/16, 1/32	1/4, 19/256, 1/8, 19/128, 1/16, 1/32
Bandwidth	6, 7 or 8MHz	1.7, 5, 6, 7, 8, 10MHz
Maximum useful bit-rate	About 31.6Mbps	About 50Mbps
SAT	**DVB-S**	**DVB-S2**
Modulation	QPSK	QPSK, 8PSK, 16APSK, 32APSK
FEC	1/2 , 2/3 , 3/4 , 5/6 , 7/8	1/4 , 1/3 , 1/2 , 3/5 , 2/3, 3/4, 4/5, 5/6, 8/9,

Available bit rates for a DVB-T system in 8MHz channels

Modulation	Codification value	Guard interval			
		1/4	1/8	1/16	1/32
QPSK	1/2	4.98	5.53	5.85	6.03
	2/3	6.64	7.37	7.81	8.04
	3/4	7.46	8.29	8.78	9.05
	5/6	8.29	9.22	9.76	10.05
	7/8	8.71	9.68	10.25	10.56
16QAM	1/2	9.95	11.06	11.71	12.06
	2/3	13.27	14.75	15.61	16.09
	3/4	14.93	16.59	17.56	18.10
	5/6	16.59	18.43	19.52	20.11
	7/8	17.42	19.35	20.49	21.11

Modulation	Codification value	Guard interval			
		1/4	1/8	1/16	1/32
64QAM	1/2	14.93	16.59	17.56	18.10
	2/3	19.91	22.12	23.42	24.13
	3/4	22.39	24.88	26.35	27.14
	5/6	24.88	27.65	29.27	30.16
	7/8	26.13	29.03	30.74	31.67

FRACARRO TELEVES

Aerials

FM and DAB

FM and DAB Series 9

VHF

BAND III Series 10

BLV Series 11

SIGMA V2 HD Series 12

UHF LTE

TAU GRID Series 13

TAU TUBE Series 14

TAU KILLER Series 15

PANEL LTE Series 16

BLU LTE Series 17

ALPHA LTE Series 18

ELIKA Series 19

ELIKA PRO Series 20

COMBO LTE

COMBO Series 21

LOG PERIODIC

LP III IV Series 22

LP LTE Series 23

LP Series 26

MASTS 27

AERIAL ACCESSORIES 28

DISHES

PENTA Series 32

60-85 cm OFFSET DISHES Series 33

60-90 cm COMPOSITE OFFSET DISHES Series 34

100-150 cm OFFSET DISHES Series 35

LNB

UNIVERSAL LNB LTE Series 36

SCD2 (dCSS) LNB Series 36

SATELLITE KIT

KIT SAT Series 37

DISH ACCESSORIES

DiSEqC Series 37

AMPLIFIER Series 37

HIPER ANTENA

FM AND DAB

FM and DAB Series

FM and DAB band aerials complete with F connector. Different design for the radio signals reception



ANT1200A



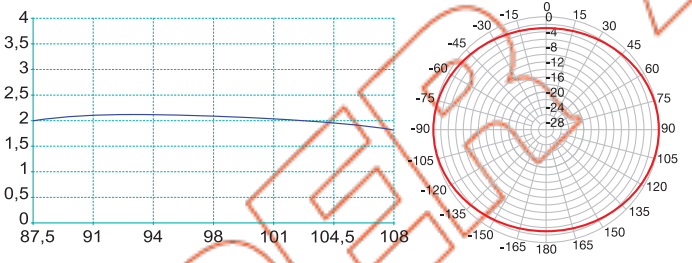
FM OMNI

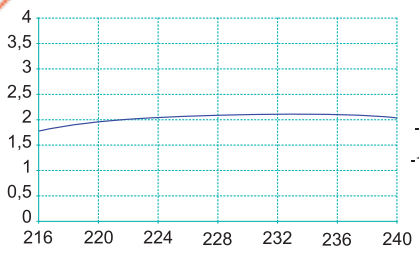


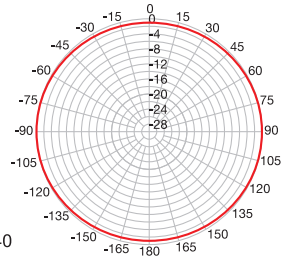
DAB

		ANT1200A	FM OMNI	DAB
Code		213001	213009	213010
Elements	No.	1	1	1
Bands		FM	FM	DAB
Channels		-	-	DAB
Freq. band	MHz	87.5-108	87.5-108	216-240
Gain	dBi	2.1	2.1	2.1
Front-to-back ratio	dB	Omni	Omni	Omni
Return loss	dB	-16	-10	-16
Beamwidth (-3dB)	°	360	360	360
Wind resistance 120 km/h (720N/m²)	kg (N)	3 (29.43)	2.7 (26.46)	2 (19.62)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	96 x 77	63 x 10.5	59 x 8
Multiple packaging quantity	Pcs	10	10	8
Unit weight	kg	0.90	0.84	0.54
Total weight with packaging	kg	10.6	8.6	4.4
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		N/A	N/A	N/A
Vertical polarisation		-	-	-
Vertical polarisation with tilt adjustment		-	-	-
Auxiliary boom		N/A	N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@105MHz for ANT1200A and FMOMNI, @230MHz for DAB)







ANT1200A **DAB**



Aerials

VHF

BAND III Series

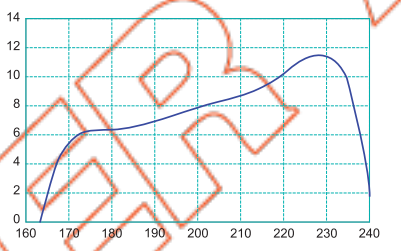
Band III aerials complete with F connector, high-quality and premounted.

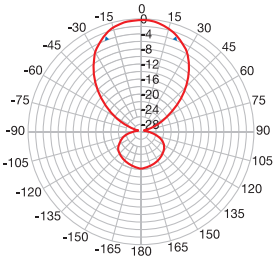


TERZA 6HD

		TERZA 6HD
Code		213008
Elements	No.	6
Bands		3
Channels		E5-E12
Freq. band	MHz	174-230
Gain	dBi	11
Front-to-back ratio	dB	25
Return loss	dB	-15
Beamwidth (-3dB)	°	±26
Wind resistance 120 km/h (720N/m²)	kg (N)	3.8 (37.24)
Connector	Type	F
Impedance	Ohm	75
Max mast diameter Ø	mm	60
Dimensions	cm	119 x 86
Multiple packaging quantity	Pcs	10
Unit weight	kg	0.98
Total weight with packaging	kg	10.9
Accessories		
Horizontal polarisation		Included
Horizontal polarisation with tilt adjustment		MEC3603G - MEC3603Z
Vertical polarisation		Included
Vertical polarisation with tilt adjustment		MEC3603G - MEC3603Z
Auxiliary boom		CA2 (219602)

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)





TERZA 6HD



VHF

BLV Series

Band III aerials complete with F connector.

High **gain**, optimum impedance adaptation and excellent directivity.

Exclusive Fracarro design



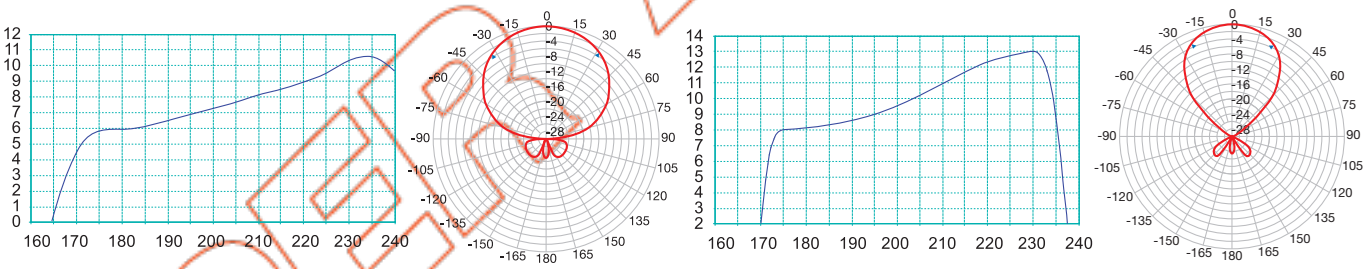
BLV4F



BLV6F

		BLV4F	BLV6F
Code		218038	218058
Elements	No.	4	6
Bands		3	3
Channels		E5-E12	E5-E12
Freq. band	MHz	174-230	174-230
Gain	dBi	10.5	13
Front-to-back ratio	dB	20	24
Return loss	dB	-23	-22
Beamwidth (-3dB)	°	±31	±24
Wind resistance 120 km/h (720N/m²)	kg (N)	3.0 (29.43)	4.5 (44.14)
Connector	Type	F	F
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Dimensions	cm	64 x 87	149 x 87
Multiple packaging quantity	Pcs	10	3
Unit weight	kg	1.23	2.00
Total weight with packaging	kg	14.5	6.7
Accessories			
Horizontal polarisation		Included	Included
Horizontal polarisation with tilt adjustment		Included	Included
Vertical polarisation		PV10 (210011)	PV10 (210011)
Vertical polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)
Auxiliary boom		N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



BLV4F **BLV6F**



Aerials

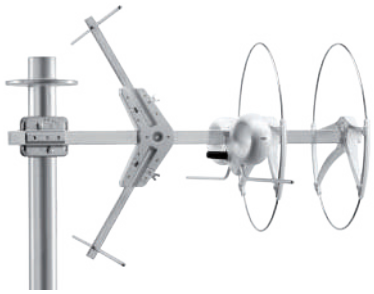
VHF

SIGMA V2 HD Series

Band III aerials complete with F connector.

No tool need for mounting thanks to its **quick coupling** radiator, reflector and director elements.

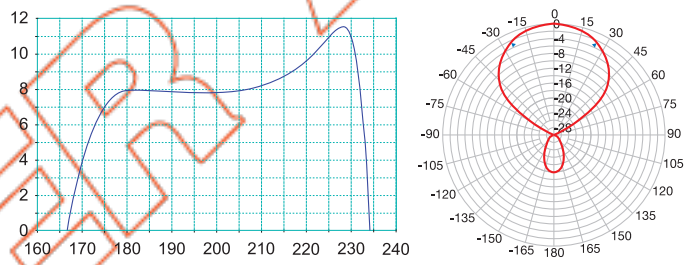
Exclusive design patented by Fracarro.



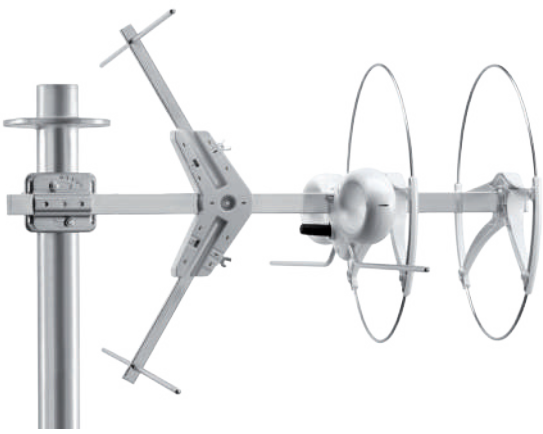
SIGMA V2 HD

		SIGMA V2 HD
Code		213203
Elements	No.	2
Bands		3
Channels		E5-E12
Freq. band	MHz	174-230
Gain	dBi	11.5
Front-to-back ratio	dB	25
Return loss	dB	-12
Beamwidth (-3dB)	°	±25
Wind resistance 120 km/h (720N/m²)	kg (N)	10 (98)
Connector	Type	F
Impedance	Ohm	75
Max mast diameter Ø	mm	60
Dimensions	cm	76 x 100
Multiple packaging quantity	Pcs	1
Unit weight	kg	2.76
Total weight with packaging	kg	2.76
Accessories		
Horizontal polarisation		Included
Horizontal polarisation with tilt adjustment		Included
Vertical polarisation		Included
Vertical polarisation with tilt adjustment		Included
Auxiliary boom		N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



SIGMA V2 HD



FIDELAND

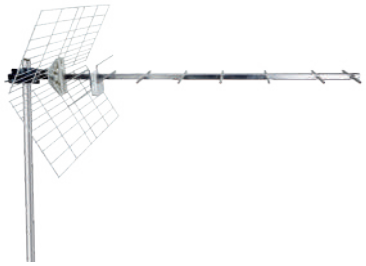
UHF LTE

TAU GRID Series

IV, V or UHF band Yagi aerial complete with F connector and grid reflectors.

Redesigned geometrical director dipoles distribution in order to obtain a better LTE signal filtering.

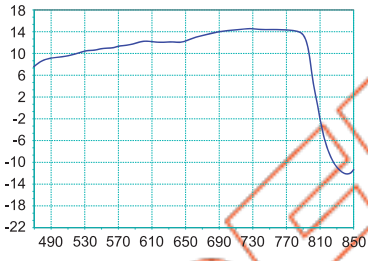
Particular mechanical strength thanks to 8mm extruded aluminium tubes

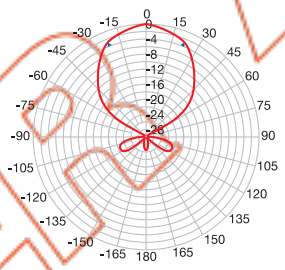


TAU11/45 LTE

		TAU11/45 LTE	TAU11/4	TAU11/5
Code		213106	213096	213097
Elements	No.	7	8	8
Bands		UHF	4	5
Channels		E21-E60	E21-E37	E38-E69
Freq. band	MHz	470-790	470-606	606-862
Gain	dBi	14.5	13.5	12
Front-to-back ratio	dB	25	31	30
Return loss	dB	-15	-20	-17
Beamwidth (-3dB)	°	±23	±24	±23
Wind resistance 120 km/h (720N/m²)	kg (N)	3.2 (31.39)	3.7 (36.29)	3.2 (31.39)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	117 x 50	115 x 50	87 x 50
Multiple packaging quantity	Pcs	10	10	10
Unit weight	kg	1.3	1.30	1.18
Total weight with packaging	kg	14.8	15.0	13.8
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		Included	Included	Included
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		Included	Included	Included
Auxiliary boom		N/A	N/A	N/A

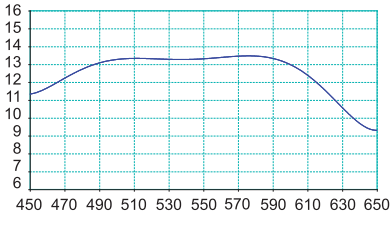
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)

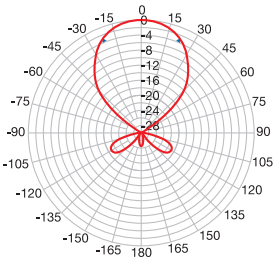




TAU11/45 LTE

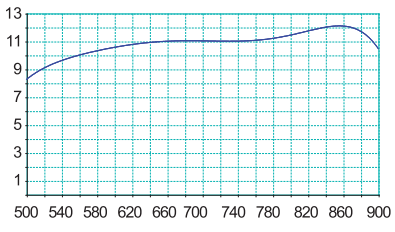
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)

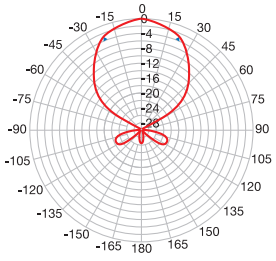




TAU11/4

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@862MHz)





TAU11/5

Aerials

UHF LTE

TAU TUBE Series

IV, V or UHF band Yagi aerial complete with F connector and tube reflectors.

Redesigned geometrical director dipoles distribution in order to obtain a better LTE signal filtering.

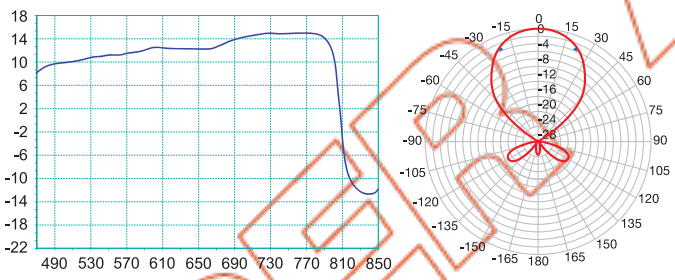
Particular mechanical strength thanks to 8mm extruded aluminium tubes



TAU15/4

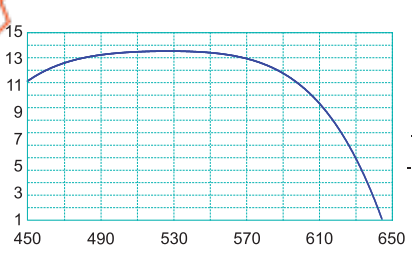
		TAU15/45 LTE	TAU15/4	TAU15/5
Code		213105	213094	213095
Elements	No.	7	8	8
Bands		UHF	4	5
Channels		E21-E60	E21-E37	E38-E69
Freq. band	MHz	470-790	470-606	606-862
Gain	dBi	15	13.5	11
Front-to-back ratio	dB	30	24	28
Return loss	dB	-15	-20	-16
Beamwidth (-3dB)	°	±22	±25	±26
Wind resistance 120 km/h (720N/m²)	kg (N)	3.2 (31.39)	3.3 (32.37)	2.8 (27.46)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	117 x 58	115 x 42	87 x 42
Multiple packaging quantity	Pcs	8	10	10
Unit weight	kg	1.18	1.06	0.96
Total weight with packaging	kg	11.25	12.6	11.6
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		Included	Included	Included
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		Included	Included	Included
Auxiliary boom		N/A	N/A	N/A

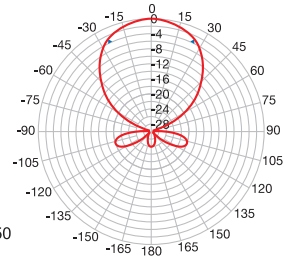
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



TAU15/45 LTE

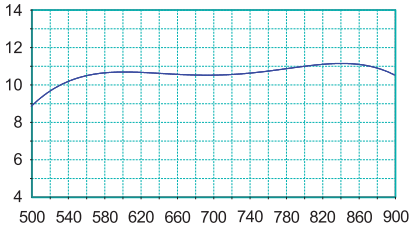
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)

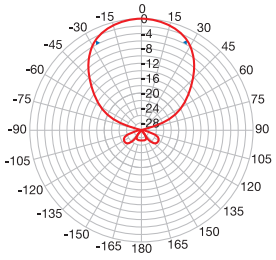




TAU15/4

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@862MHz)





TAU15/5

UHF LTE

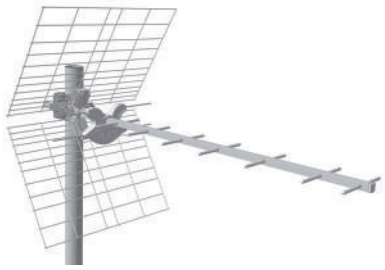
TAU LTE Series

UHF band Yagi aerial complete with F connector

Redesigned geometrical director dipoles distribution in order to obtain a better LTE signal filtering.

Particular mechanical strength thanks to 8mm extruded aluminium tubes

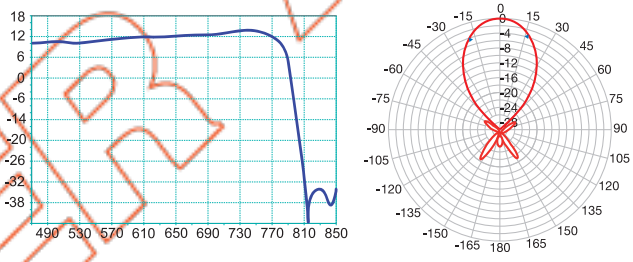
Further LTE filter inserted in the radiator dipole.



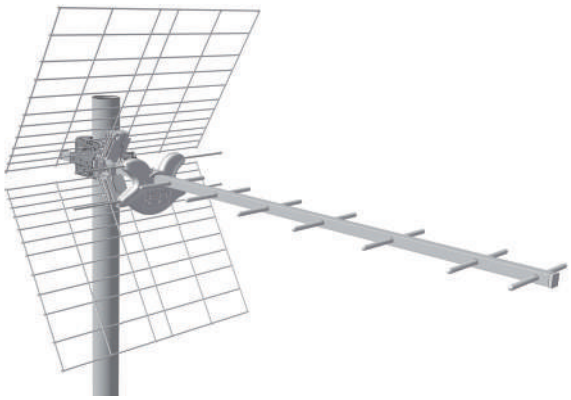
TAU LTE KILLER

		TAU LTE KILLER	TAU LTE KILLER+
Code		213103	213104
Elements	No.	7	7
Bands		UHF	UHF
Channels		E21-E60	E21-E60
Freq. band	MHz	470-790	470-790
Gain	dBi	14	14,5
Front-to-back ratio	dB	38	38
Return loss	dB	-18	-18
Beamwidth (-3dB)	°	±21	±20
Wind resistance 120 km/h (720N/m²)	kg (N)	5.3 (51.94)	7.3 (71.54)
Connector	Type	F	F
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Dimensions	cm	117 x 50	117 x 58
Multiple packaging quantity	Pcs	1	1
Unit weight	kg	1.75	1.75
Total weight with packaging	kg	1.9	1.9
Accessories			
Horizontal polarisation		Included	Included
Horizontal polarisation with tilt adjustment		Included	Included
Vertical polarisation		Included	Included
Vertical polarisation with tilt adjustment		Included	Included
Auxiliary boom		N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



TAU LTE KILLER



HIDEA

Aerials

UHF LTE

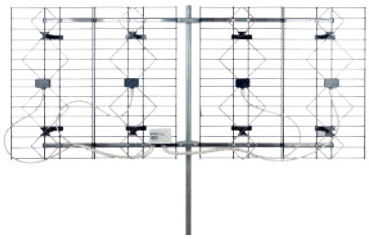
PANEL Series

UHF band single and multiple **panels** aerials complete with F connector.

The very low vertical section allows installation in locations with **particular climatic conditions**, for example in snowy areas.



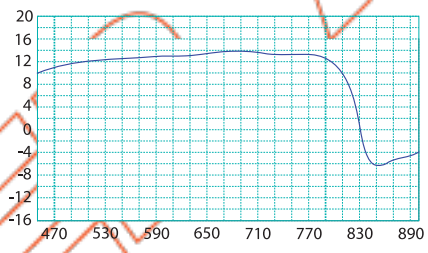
PU4AF LTE

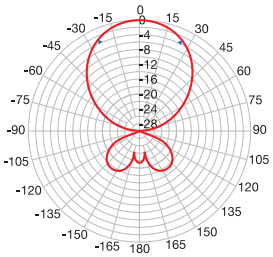


PU16F LTE

		PU4AF LTE	PU8F LTE	PU16F LTE
Code		217452	217454	217455
Elements	No.	4	8	16
Bands		UHF	UHF	UHF
Channels		E21-E60	E21-E60	E21-E60
Freq. band	MHz	470-790	470-790	470-790
Gain	dBi	14	16	18.5
Front-to-back ratio	dB	20	26	28
Return loss	dB	-14	-10	-10
Beamwidth (-3dB)	°	±24	±15	±10
Wind resistance 120 km/h (720N/m²)	kg (N)	5.0 (49.05)	13 (127.53)	26 (255.06)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	50 x 76	88.5 x 72	167 x 72
Multiple packaging quantity	Pcs	6	1	1
Unit weight	kg	1.20	2.6	4.9
Total weight with packaging	kg	8.95	2.8	5.3
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		N/A	N/A	N/A
Vertical polarisation		PVP (210002)	N/A	N/A
Vertical polarisation with tilt adjustment		N/A	N/A	N/A
Auxiliary boom		N/A	N/A	N/A

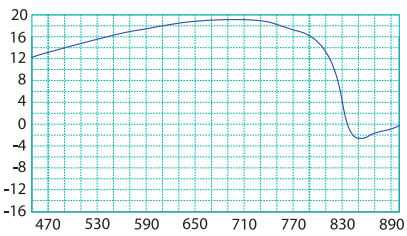
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)

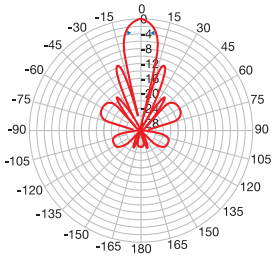




PU4AF LTE

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)





PU16F LTE

UHF LTE

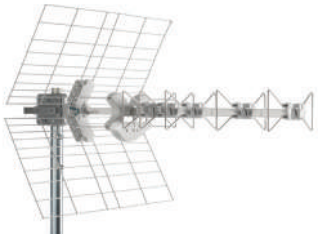
BLU LTE Series

UHF band biconical aerial complete with F connector and grid reflectors.

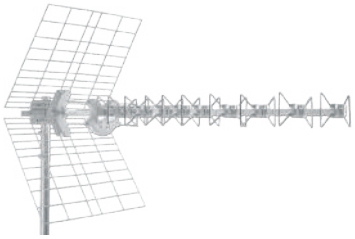
No tool need for mounting BLU series, thanks to premounted elements, quick coupling radiator and reflectors and mast bracket with zenith adjustment and **wingnut.**

LTE filter inserted in the radiator dipole.

High **gain**, optimum impedance adaptation and excellent directivity.



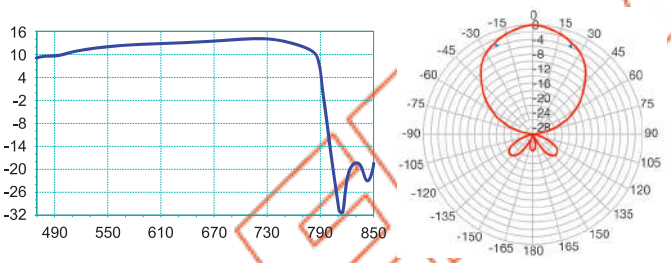
BLU5HDLTE



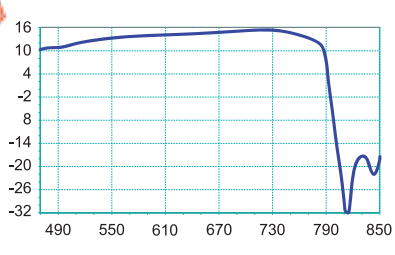
BLU10HDLTE

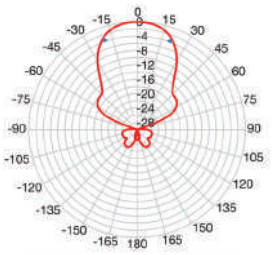
		BLU5HDLTE	BLU10HDLTE	BLU22HDLTE
Code		217910	217909	217912
Elements	No.	5	10	22
Bands		UHF	UHF	UHF
Channels		E21-E60	E21-E60	E21-E60
Freq. band	MHz	470-790	470-790	470-790
Gain	dBi	14	16	18,5
Front-to-back ratio	dB	30	30	30
Return loss	dB	-16	-16	-18
Beamwidth (-3dB)	°	±25	±22	±17
Wind resistance 120 km/h (720N/m²)	kg (N)	5.7 (55.86)	7.2 (70.56)	12.2 (119.65)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	84 x 50	119 x 50	242 x 50
Multiple packaging quantity	Pcs	10	10	2
Unit weight	kg	1.75	2.22	3.54
Total weight with packaging	kg	19.4	24.6	7.5
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		Included	Included	Included
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		Included	Included	Included
Auxiliary boom		N/A	N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



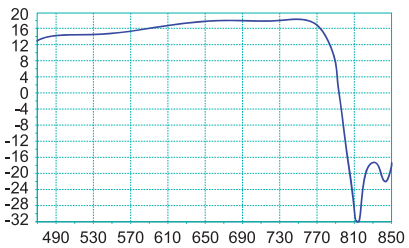
BLU5HDLTE

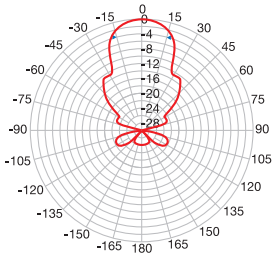




BLU10HDLTE

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)





BLU22HDLTE

UHF LTE

ALPHA LTE Series

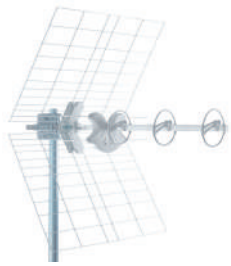
UHF band Loop Yagi aerial complete with F connector.

No tool need for mounting ALPHA series, thanks to premounted elements, quick coupling radiator and reflectors and mast bracket with zenith adjustment and **wingnut.**

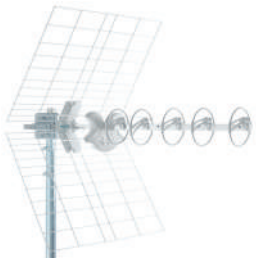
LTE filter inserted in the radiator dipole.

Excellent gain, impedance matching and **directivity**.

Exclusive design **patented** by Fracarro.



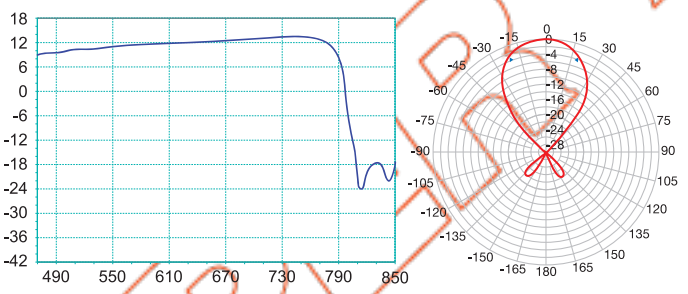
ALPHA 3HD LTE



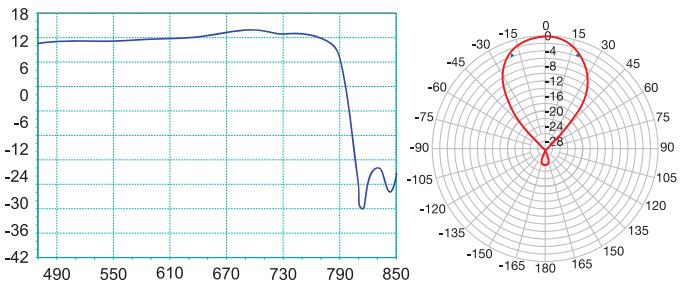
ALPHA 5HD LTE

		ALPHA3HDLTE	ALPHA5HDLTE	ALPHA5LTE+	ALPHA5LTE+700
Code		213217	213218	213221	213225
Elements	No.	3	5	5	5
Bands		UHF	UHF	UHF	UHF
Channels		E21-E60	E21-E60	E21-E60	E21-E48
Freq. band	MHz	470-790	470-790	470-790	470-694
Gain	dBi	13	14	14.2	14.2
Front-to-back ratio	dB	38	38	38	38
Return loss	dB	-18	-18	-18	-18
Beamwidth (-3dB)	°	±25	±22	±22	±22
Wind resistance 120 km/h (720N/m²)	kg (N)	5.7 (55.86)	5.7 (55.86)	7.7 (75.46)	7.7 (75.46)
Connector	Type	F	F	F	F
Impedance	Ohm	75	75	75	75
Max mast diameter Ø	mm	60	60	60	60
Dimensions	cm	71 x 50	81 x 50	81 x 58	81 x 58
Multiple packaging quantity	Pcs	10	10	12	12
Unit weight	kg	1.80	2.77	1.70	1.70
Total weight with packaging	kg	20.3	31.0	23.1	23.1
Accessories					
Horizontal polarisation		Included	Included	Included	Included
Horizontal polarisation with tilt adjustment		Included	Included	Included	Included
Vertical polarisation		Included	Included	Included	Included
Vertical polarisation with tilt adjustment		Included	Included	Included	Included
Auxiliary boom		N/A	N/A	N/A	N/A

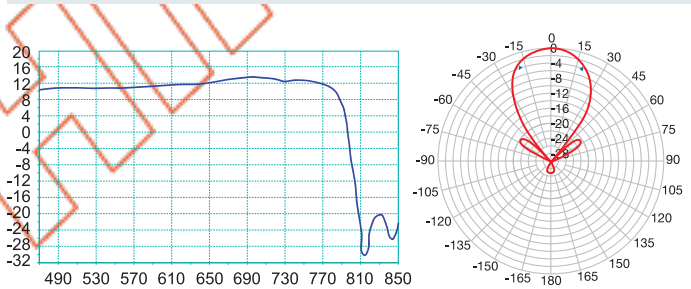
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



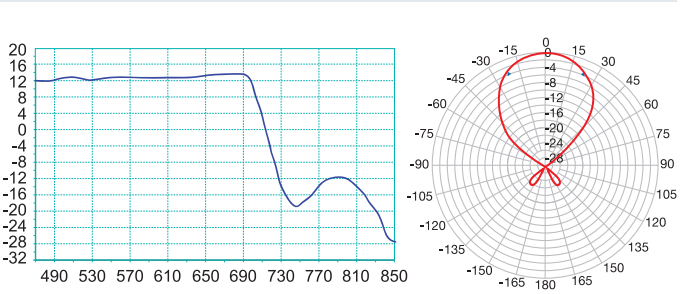
ALPHA 3HD LTE



ALPHA 5HD LTE



ALPHA 5 LTE+



ALPHA 5 LTE+ 700

UHF LTE

ELIKA Series

Helical UHF band aerial with F connector, it is an evolution of the Loop Yagi technology, already adopted to Fracarro.

High gain, **extraordinary directivity** and almost total absence of the lateral lobes. **Exclusive Elika** design **patented** by Fracarro.

Pre-assembled directors, quick-fit radiator and mast attachment with zenithal adjustment as standard with **large butterfly nut** to complete assembly **without the aid of any tool**.

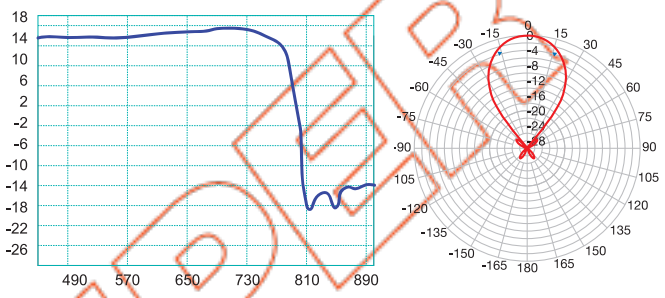
LTE filter inserted in the radiator dipole.



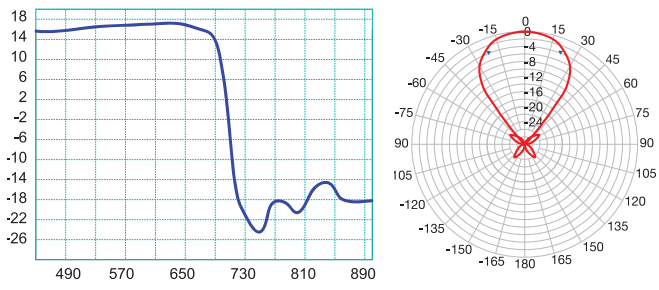
ELIKA

		ELIKA	ELIKA 700 P	ELIKA 700 C
Code		213226	213228	213229
Elements	No.	1	1	1
Bands		UHF	UHF	UHF
Channels		E21-E60	E21-E48	E21-E48
Freq. band	MHz	470-790	470-694	470-694
Gain	dBi	17,5	17	17
Front-to-back ratio	dB	32	32	32
Return loss	dB	-18	-18	-18
Beamwidth (-3dB)	°	±18	±22	±22
Wind resistance 120 km/h (720N/m²)	kg (N)	19 (186.2)	19 (186.2)	19 (186.2)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Dimensions	cm	92 x 82 x 62	92 x 82 x 62	92 x 82 x 62
Multiple packaging quantity	Pcs	10 (Single in bag)	10 (Single in bag)	6 (single internal cardboard packaging)
Unit weight	kg	2.30	2.30	2.30
Total weight with packaging	kg	27.6	27.6	18
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		Included	Included	Included
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		Included	Included	Included
Auxiliary boom		N/A	N/A	N/A

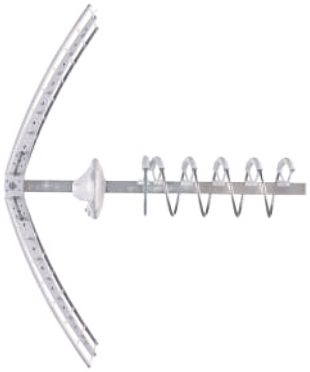
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)



ELIKA | **ELIKA 700 P** | **ELIKA 700 C**



Aerials

UHF LTE

ELIKA PRO Series

Active helical UHF band aerial complete with F connector and **an LED alignment system and an automatic gain control (AGC)**. It is an evolution of the Loop Yagi technology, already adopted to Fracarro

No tool need for mounting ELIKA series, thanks to premounted elements, quick coupling radiator and reflectors and mast bracket with zenith adjustment and **large wingnut.**

LTE filter inserted in the radiator dipole.

High gain, **extraordinary directivity** and almost total absence of the lateral lobes.

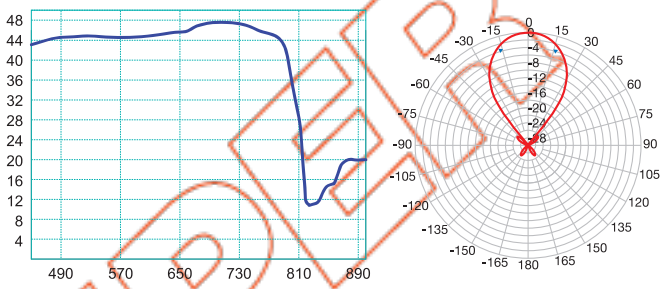
Exclusive Elika design **patented** by Fracarro.



ELIKA PRO

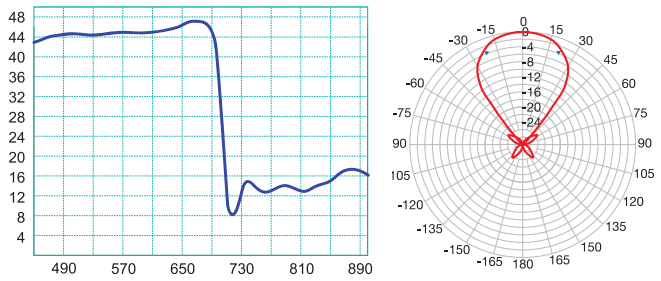
		ELIKA PRO	ELIKA PRO 700 C
Code		213227	213231
Elements	No.	1	1
Bands		UHF	UHF
Channels		E21-E60	E21-E48
Freq. band	MHz	470-790	470-694
Gain	dBi	47,5	47
CAG dynamics	dBµV	65-80	65-80
Fixed output level	dBµV	98	98
Supply voltage	V	12-24	12-24
Current cons.	mA	45	45
Front-to-back ratio	dB	32	32
Return loss	dB	-15	-15
Beamwidth (-3dB)	°	±18	±22
Wind resistance 120 km/h (720N/m²)	kg (N)	19 (186.2)	19 (186.2)
Connector	Type	F	F
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Dimensions (L x H x W)	cm	92 x 82 x 62	92 x 82 x 62
Multiple packaging quantity	Pcs	10 (Single in bag)	6 (single internal cardboard packaging)
Unit weight	kg	2.30	2.30
Total weight with packaging	kg	27.6	18
Accessories			
Horizontal polarisation		Included	Included
Horizontal polarisation with tilt adjustment		Included	Included
Vertical polarisation		Included	Included
Vertical polarisation with tilt adjustment		Included	Included
Auxiliary boom		N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



ELIKA PRO

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)

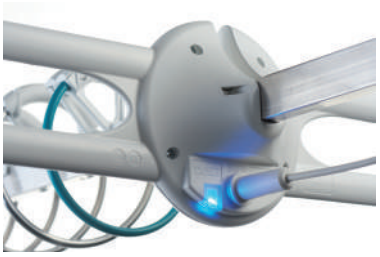


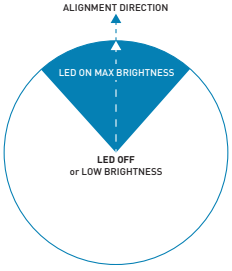
ELIKA PRO 700 C

LED alignment system

Elika PRO is the only aerial with LED assisted monitoring, patented by Fracarro.

213233 - **ElikaPRO 700K** KIT version available with PSU342





UNDER DEVELOPMENT

COMBO LTE

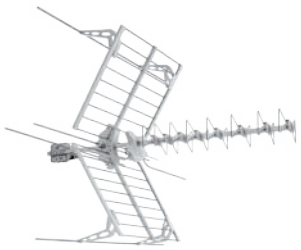
COMBO LTE Series

Biconical and **helical broadband** (III and UHF) with F connector antennas.

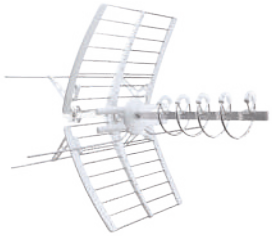
No tool need for mounting thanks to premounted elements, quick coupling radiator and reflectors, mast bracket with zenith adjustment and **wingnut**.

LTE filter inserted in the radiator dipole.

BLU and Elika design and coupling of the band III reflector are exclusive **patents** of Fracarro.



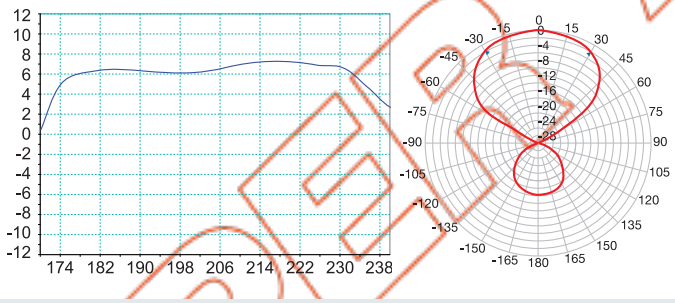
BLU COMBO



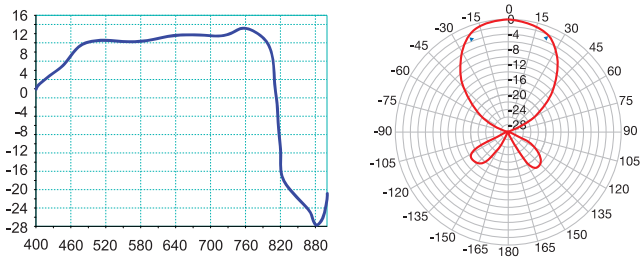
ELIKA COMBO

		BLU COMBO LTE	ELIKA COMBO
Code		217911	213232
Elements	No.	4 / 8	2/1
Bands		3+DAB / UHF	3+DAB / UHF
Channels		E5-E12 / E21-E60	E5-E12 + DAB / E21-E60
Freq. band	MHz	174-240 / 470-790	174-240 / 470-790
Gain	dBi	7 / 13	7 / 16
Front-to-back ratio	dB	20 / 32	20 / 32
Return loss	dB	-14 / -18	-14 / -18
Beamwidth (-3dB)	°	±30 / ±26	±28 / ±22
Wind resistance 120 km/h (720N/m²)	kg (N)	9 (88.2)	20 (196)
Connector	Type	F	F
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Dimensions	cm	118 x 100	100 x 82 x 100
Multiple packaging quantity	Pcs	8	2
Unit weight	kg	2.76	2.7
Total weight with packaging	kg	26.0	7.8
Accessories			
Horizontal polarisation		Included	Included
Horizontal polarisation with tilt adjustment		Included	Included
Vertical polarisation		Included	Included
Vertical polarisation with tilt adjustment		Included	Included
Auxiliary boom		N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)

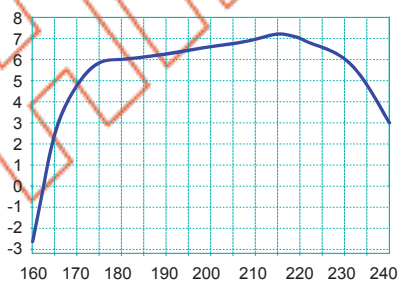


Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)

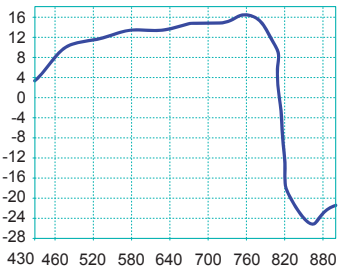


BLU COMBO LTE

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



ELIKA COMBO

LOG PERIODIC

LP III IV Series

Log-periodic pre-assembled aerials for **III and IV bands** characterized by: extremely easy connection due to the **F connector** being located near the mast clamp.

Due to the specific mast clamp these aerials can be assembled in **vertical or horizontal polarisation without additional accessories**



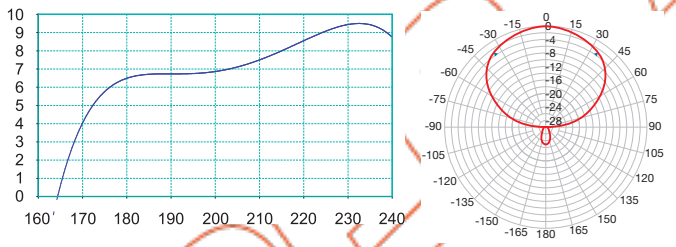
LP34F



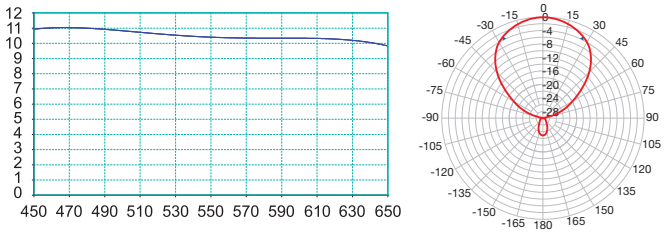
LP3F

		LP34F	LP3F	LP4F
Code		216135	216171	216151
Elements	No.	14+14	6+6	8+8
Bands		3+4	3	4
Channels		E5-E12 / E21-E37	E5-E12	E21-E37
Freq. band	MHz	174-230 / 470-606	174-230	470-606
Gain	dBi	9.5 / 11	9	10
Front-to-back ratio	dB	21 / 25	32	32
Return loss	dB	-18 / -15	-18	-18
Beamwidth (-3dB)	°	±35 / ±28	±32	±28
Wind resistance 120 km/h (720N/m²)	kg (N)	2.8 (27.46)	2.8 (27.46)	2.8 (27.46)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Plastic color		Black	Black	Black
Dimensions	cm	115 x 86	65 x 33	99 x 32
Multiple packaging quantity	Pcs	20	60	20
Unit weight	kg	1.13	0.56	0.79
Total weight with packaging	kg	23.0	38.0	16.3
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)	PV10 (210011)
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)	PV10 (210011)
Auxiliary boom		N/A	N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)

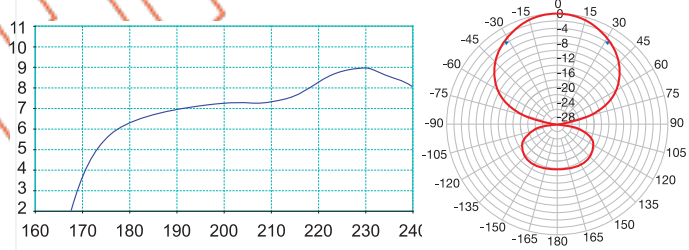


Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)

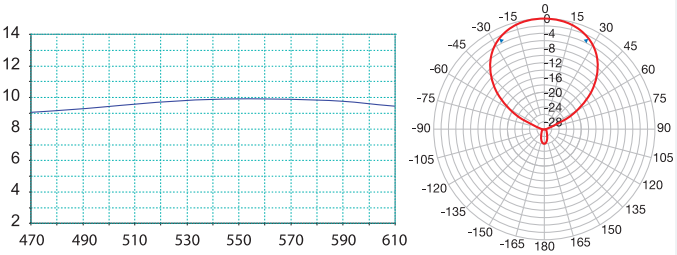


LP34F

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)



LP3F **LP4F**

LOG PERIODIC

LP LTE Series

Preassembled log-periodic antennas, the **F models** are characterized by the extreme ease of installation thanks to the **connector** placed near the attachment to the mast.

Due to the specific mast clamp these aerials can be assembled in **vertical or horizontal polarisation without additional accessories**

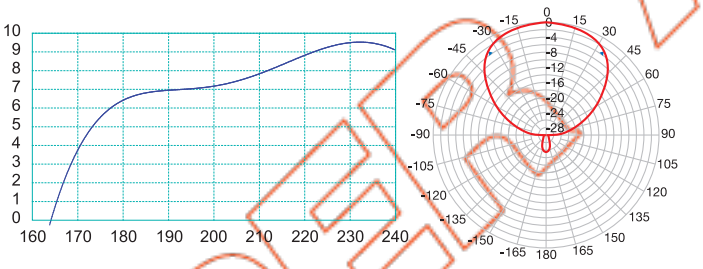
Geometrical dipole distribution has been **redesigned** in order to obtain a good LTE filtering.



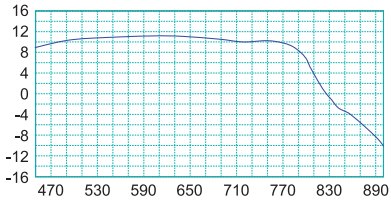
LP345F LTE

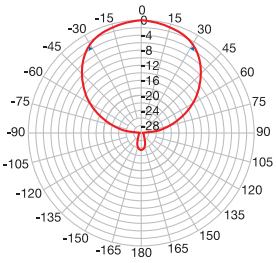
		LP345F LTE	LP345F 700	LP345MF 700
Code		216270	216255	216254
Elements	No.	16+16	16+16	15+15
Bands		3 / UHF	3 / UHF	3 / UHF
Channels		E5-E12 / E21-E60	E5-E12 / E21-E48	E5-E12 / E21-E48
Freq. band	MHz	174-230 / 470-790	174-230 / 470-694	174-230 / 470-694
Gain	dBi	9.5 / 11	9.5 / 11	8.5 / 9.5
Front-to-back ratio	dB	24 / 32	24 / 32	22 / 30
Return loss	dB	-16 / -16	-16 / -16	-14 / -13
Beamwidth (-3dB)	°	±34 / ±31	±34 / ±31	±34 / ±30
Wind resistance 120 km/h (720N/m²)	kg (N)	3.9 (38.25)	3.9 (38.25)	2.7 (26.48)
Connector	Type	F	F	F
Impedance	Ohm	75	75	75
Max mast diameter Ø	mm	60	60	60
Plastic color		White	Black	Black
Dimensions	cm	115 x 86	115 x 86	77 x 86
Multiple packaging quantity	Pcs	20	20	20
Unit weight	kg	1.12	0.84	0.75
Total weight with packaging	kg	22.9	22.0	19.5
Accessories				
Horizontal polarisation		Included	Included	Included
Horizontal polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)	PV10 (210011)
Vertical polarisation		Included	Included	Included
Vertical polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)	PV10 (210011)
Auxiliary boom		N/A	N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)





LP345F LTE

HIGH PERFORMANCE

Aerials

LOG PERIODIC

LP LTE Series

Preassembled log-periodic antennas, the **F models** are characterized by the extreme ease of installation thanks to the **connector** placed near the attachment to the mast.

Due to the specific mast clamp these aerials can be assembled in **vertical or horizontal polarisation without additional accessories**

Geometrical dipole distribution has been **redesigned** in order to obtain a good LTE filtering.

* Also available with 470-694MHz UHF band (E21-E48).
216256 - **LP45F700 MINI**



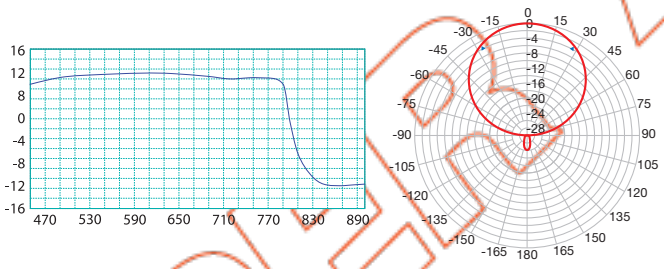
LP45F LTE



LP45F700

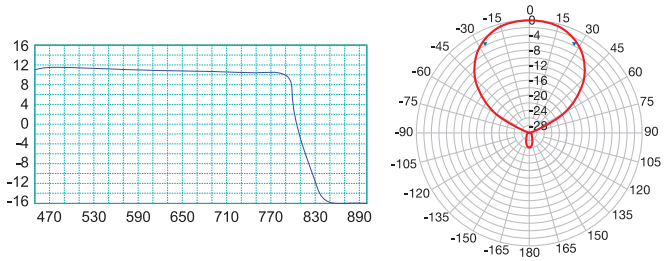
		LP45F MINI	LP45F LTE	LP45NF LTE	LP45F700
Code		216152	216249	216250	216251
Elements	No.	10+10	14+14	15+15	15+15
Bands		UHF	UHF	UHF	UHF
Channels		E21-E69*	E21-E60	E21-E60	E21-E48
Freq. band	MHz	470-862*	470-790	470-790	470-694
Gain	dBi	9	11	11.5	12.5
Front-to-back ratio	dB	30	36	36	36
Return loss	dB	-15	-15	-15	-15
Beamwidth (-3dB)	°	±25	±28	±25	±25
Wind resistance 120 km/h (720N/m²)	kg (N)	2.8 (27.47)	3.0 (29.43)	3.0 (29.43)	3.0 (29.43)
Connector	Type	F	F	F	F
Impedance	Ohm	75	75	75	75
Max mast diameter Ø	mm	60	60	60	60
Plastic color		Black	White	White	Black
Dimensions	cm	44 x 31	99 x 32	116 x 86	116 x 86
Multiple packaging quantity	Pcs	30	15	20	30
Unit weight	kg	0.50	0.80	0.88	0.90
Total weight with packaging	kg	15.0	13.2	18.0	27.3
Accessories					
Horizontal polarisation			Included		
Horizontal polarisation with tilt adjustment			PV10 (210011)		
Vertical polarisation			Included		
Vertical polarisation with tilt adjustment			PV10 (210011)		
Auxiliary boom			N/A		

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



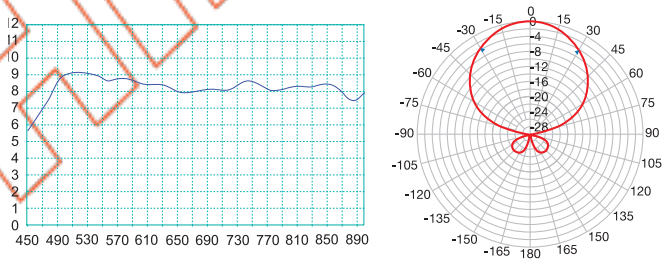
LP45F LTE

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)



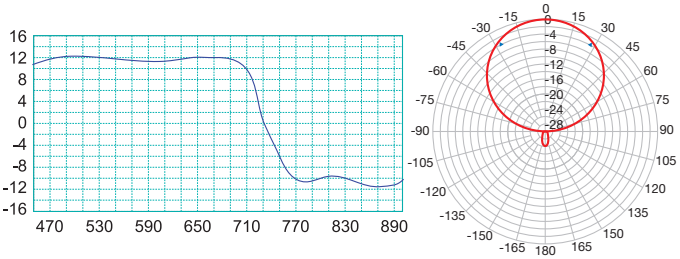
LP45NF LTE

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)



LP45F MINI

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@600MHz)



LP45F700

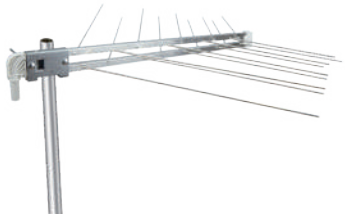
LOG PERIODIC

LP LTE Series

Preassembled log-periodic antennas, the **F models** are characterized by the extreme ease of installation thanks to the **connector** placed near the attachment to the mast.

Due to the specific mast clamp these aerials can be assembled in **vertical or horizontal polarisation without additional accessories**

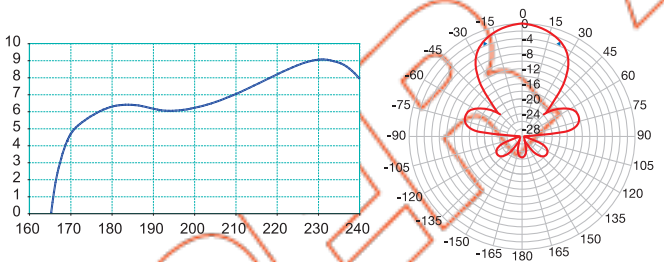
Geometrical dipole distribution has been **redesigned** in order to obtain a good LTE filtering.



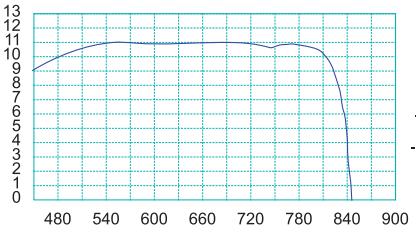
LPV345F LTE

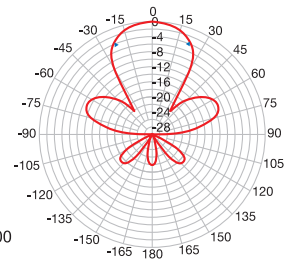
		LPV345F LTE	LP345HV LTE
Code		217250	216268
Elements	No.	9+9	16+16
Bands		3 / UHF	3 / UHF
Channels		E5-E12 / E21-E60	E5-E12 / E21-E60
Freq. band	MHz	174-230 / 470-790	174-230 / 470-790
Gain	dBi	9 / 11.5	9 / 11
Front-to-back ratio	dB	24 / 32	24 / 32
Return loss	dB	-18 / -13	-13 / -13
Beamwidth (-3dB)	°	±23 / ±21	±34 / ±31
Wind resistance 120 km/h (720N/m²)	kg (N)	2.8 (27.46)	3.9 (38.25)
Connector	Type	F	Clamp
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Plastic color		White	White
Dimensions	cm	65 x 79	111 x 86
Multiple packaging quantity	Pcs	20	20
Unit weight	kg	0.85	1.04
Total weight with packaging	kg	17.5	21.3
Accessories			
Horizontal polarisation		Included	Included
Horizontal polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)
Vertical polarisation		Included	Included
Vertical polarisation with tilt adjustment		PV10 (210011)	PV10 (210011)
Auxiliary boom		N/A	N/A

Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)



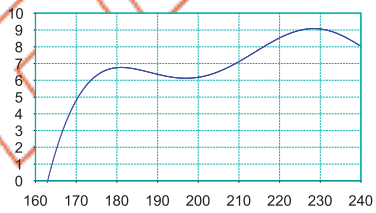
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)

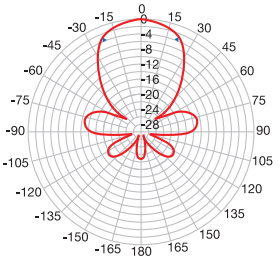




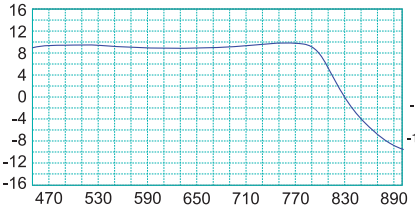
LPV345F LTE

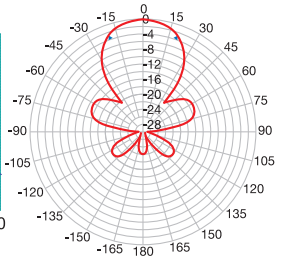
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)





Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@790MHz)





LP345HV LTE

Aerials

UHF

LP Series

Preassembled log-periodic antennas, the **F models** are characterized by the extreme ease of installation thanks to the **connector** placed near the attachment to the mast.

Due to the specific mast clamp these aerials can be assembled in **vertical or horizontal polarisation without additional accessories**



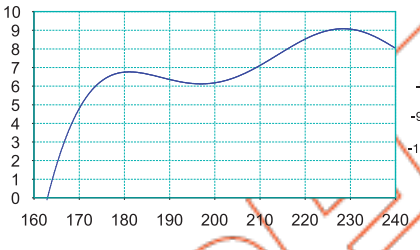
LPV345HV

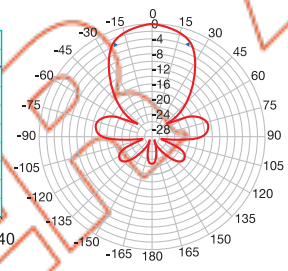


LPV345F

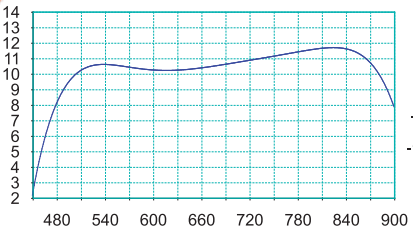
		LPV345HV	LPV345F
Code		217349	217350
Elements	No.	9+9	9+9
Bands		3+UHF	3+UHF
Channels		E5-E12 / E21-E69	E5-E12 / E21-E69
Freq. band	MHz	174-230 / 470-862	174-230/470-862
Gain	dBi	9 / 11.5	9/11.5
Front-to-back ratio	dB	24 / 32	24/32
Return loss	dB	-18 / -18	-18/-13
Beamwidth (-3dB)	°	±23 / ±21	±23/±21
Wind resistance 120 km/h (720N/m²)	kg (N)	2.8 (27.46)	2.8 (27.46)
Connector	Type	Clamp	F
Impedance	Ohm	75	75
Max mast diameter Ø	mm	60	60
Plastic color		Black	Black
Dimensions	cm	111 x 86	75 x 79
Multiple packaging quantity	Pcs	20	20
Unit weight	kg	0.80	0.85
Total weight with packaging	kg	16.5	17.5
Accessories			
Horizontal polarisation		Included	-
Horizontal polarisation with tilt adjustment		PV10 (210011)	-
Vertical polarisation		Included	-
Vertical polarisation with tilt adjustment		PV10 (210011)	-
Auxiliary boom		N/A	-

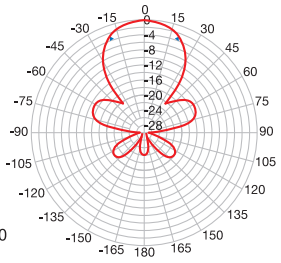
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)





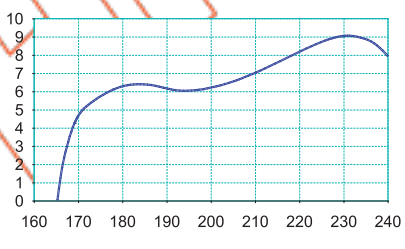
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@862MHz)

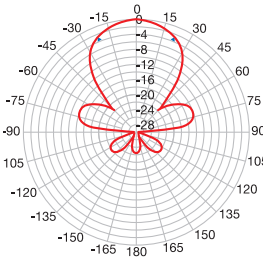




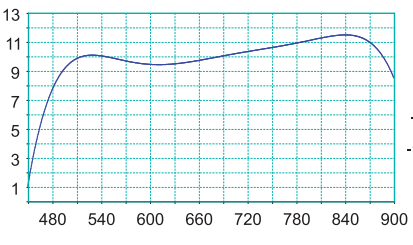
LPV345HV

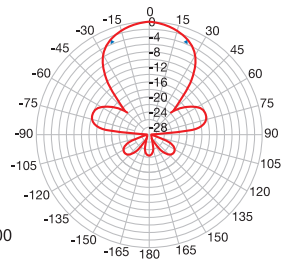
Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@200MHz)





Gain (x: frequency MHz, y: ISO dBi gain) and **Pattern** (@862MHz)





LPV345F

MASTS

TELESCOPIC MASTS

Telescopic masts with cap. Hot-dipped zinc coating.



TEL1.5/4

Item	Code	Thickness mm	Height m	M8 nuts No.	Diameter mm	Pack. Pcs
TEL1.5/4	287243	1.5	2+2=4	2	25+30	5
TEL2/4	287241	2	2+2=4	4	28+35	3
TEL2/6	287242	2	2x3=6	4	28+35+42	2

MASTS WITHOUT NUTS

Masts without nuts with cap. Hot-dipped zinc coating.



PaloSB2 1.5/25

Item	Code	Thickness mm	Height m	M8 nuts No.	Diameter mm	Pack. Pcs
PaloSB2 1.5/25	287244	1.5	2	-	25	10
PaloSB2 2/28	287245	2	2	-	28	5
PaloSB3 2/28	287246	2	3	-	28	5

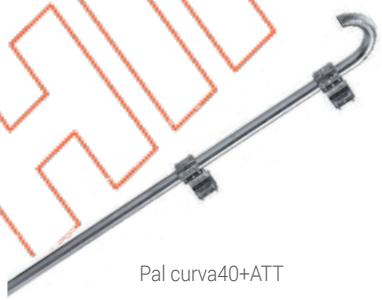


PaloCB2 1.5/30

Item	Code	Thickness mm	Height m	M8 nuts No.	Diameter mm	Pack. Pcs
PaloCB2 1.5/30	287247	1.5	2	2	30	5
PaloCB2 1.5/35	287248	1.5	2	2	35	5
PaloCB2 1.5/40	287249	1.5	2	2	40	5
PaloCB2 2/35	287250	2	2	4	35	5
PaloCB2 2/42	287251	2	2	4	42	5
PaloCB2 2/50	287252	2	2	4	50	3
PaloCB3 2/35	287253	2	3	4	35	3
PaloCB3 2/42	287254	2	3	4	42	3
PaloCB3 2/50	287255	2	3	4	50	2
PaloCB2 3/60	287256	3	2	4	60	2
PaloCB3 3/60	287257	3	3	4	60	1

ELBOW MASTS

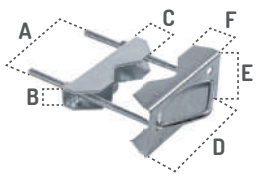
Elbow shapped masts with removable elbow, Hot-dipped zinc coating



Pal curva40+ATT

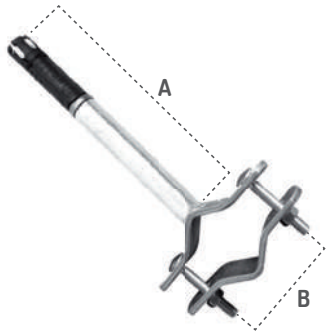
Item	Code	Thickness mm	Diameter mm	Pack. Pcs
Palcurva40+att	287258	2	40	1
Palcurva50+att	287259	2	50	1

AERIAL ACCESSORIES



ZNRING

Item	Code	Features	Pack. Pcs
ZNRING	287271	Mast bracket for railing mast A: 80 mm, B: 45 mm, C: 15 mm, D: 80 mm, E: 30 mm, F: 25 mm Reverse toothed stirrup 2,3 mm tickness M6 Clevis For Ø30÷55mm masts	70

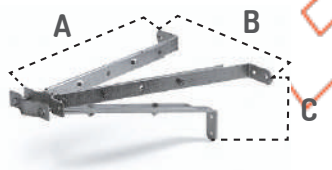


ZNESPTU10

Item	Code	Features	Pack. Pcs
ZNESPTU10	287260	A: Total length 10cm B: Holes spacing 63 mm Clevis: tape 30x3 mm, nuts: M6x45 mm, MAST clamp Ø 25÷45 mm,Tube Ø 18x1.5 mm, tube Ø 18x1.5 mm	50
ZNESPTU15	287261	A: Bracket total length 15 cm B: Holes spacing 63 mm Growing screw M10 (Ø 18x 60 mm)	50
ZNESPTU20	287262	A: Total length 20cm B: Holes spacing 63 mm Clevis: tape 30x3 mm, nuts: M6x45 mm MAST clampi Ø 25÷45 mm,Tube Ø 18x1,5 mm, growing screws M10 (Ø 18x 60 mm)	50
ZNESPTO10	287268	A: Total length 10cm B: Holes spacing 95 mm Clevis: tape 30x4 mm, nuts: M8x60 mm MAST clampi Ø 30÷60 mm,cylinder Ø 18mm, growing screws M10 (Ø 18x 60 mm)	50
ZNESPTO15	287269	A: Bracket total length 15 cm B: Holes spacing 95 mm Clevis: tape 30x4 mm, nuts: M8x60 mm MAST clampi Ø 30÷60 mm,cylinder Ø 18mm, growing screws M10 (Ø 18x 60 mm)	50
ZNESPTO20	287270	A: Total length 20cm B: Holes spacing 95 mm Clevis: tape 30x4 mm, nuts: M8x60 mm MAST clampi Ø 30÷60 mm,cylinder Ø 18mm, growing screws M10 (Ø 18x 60 mm)	50

TRIPOD

Adjustable, hot-dip galvanized tripod support.



ZN3PREG

Item	Code	Features	Pack. Pcs
ZN3PREG	287272	A: Adjustable from 26 to 42 cm B: min 35 cm - max 43 cm C: min 23 cm - max 33 cm Chassis: flat 30x5mm - 3 connection holes Ø 11 mm Toothted brackets 2,5mm tickness Screws M8x120 mm QST Mast connection Ø 30÷55mm	12

WALLMOUNT BRACKETS

Hot-dip galvanized wall supports.



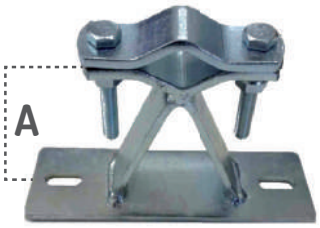
ZNPMEMILIA

Item	Code	Features	Pack. Pcs
ZNPMEMILIA	287273	Plate: 250x70x5 mm - 2 mounting holes 20x14 mm Clevis: 40x8 mm - Holes spacing 140 mm Screws : M10x90 mm for masts Ø 40÷90 mm Hot-dipped zinc coating	12
ZNPMECONO	287274	Plate: 170x40x4 mm - 2 mounting holes 15x10 mm Clevis: 40x4 mm - Holes spacing 95 mm Screws: M8x60 mm QST for masts Ø 25÷60 mm Electrolytic galvanizing	40

AERIAL ACCESSORIES

REINFORCED BRACKETS

Hot-dipped zinc coating reinforced brackets

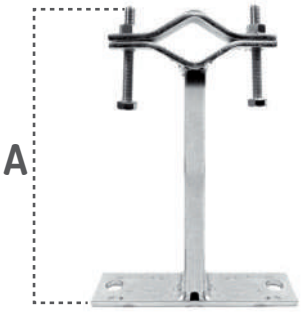


ZNRINF

Item	Code	Features	Pack. Pcs
ZNRINF	287275	Plate: 200x70x5 mm - 2 mounting holes 15x10 mm Clevis: 40x4 mm - Holes spacing 95 mm Screws: M8x60 mm QST for masts Ø 25÷60 mm Electrolytic galvanizing	15
ZNRINF5	287276	A: 5 cm Chassis plate: 35x6 mm Plate: 200x70x5 mm - 2 mounting holes 20x11 mm Clevis: 35x6 mm - Holes spacing 100 mm Screws: M10x60 mm for masts Ø 30÷60 mm	12
ZNRINF10	287277	A: 10 cm Chassis plate: 35x6 mm Plate: 200x70x5 mm - 2 mounting holes 20x11 mm Clevis: 35x6 mm - Holes spacing 100 mm Screws: M10x60 mm for masts Ø 30÷60 mm	12
ZNRINF20	287278	A: 20 cm Chassis plate: 35x6 mm Plate: 200x70x5 mm - 2 mounting holes 20x11 mm Clevis: 35x6 mm - Holes spacing 100 mm Screws: M10x60 mm for masts Ø 30÷60 mm	10

CHEAP BRACKETS

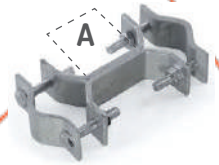
Hot-dipped zinc coating cheap brackets



ZNECONO10

Item	Code	Features	Pack. Pcs
ZNECONO10	287279	A: 10 cm Chassis plate: 40x8 mm Plate: 170x40x4 mm - 2 mounting holes 15x10 mm Clevis: 40x4 mm - Holes spacing 95 mm Screws: M8x60 mm QST for masts Ø 25÷60 mm Hot-dipped zinc coating	25
ZNTELE20	287332	A: Adjustable from 20 to 33 cm Plate: 110x50x4 mm - 2 mounting holes 15x10 mm Inner tube Ø 20x20x1,5 mm Outer tube Ø 25x25x1,5 mm Clevis: 30x4 mm - Holes spacing 95 mm Screws: M8x60 mm QST for masts Ø 25÷60 mm Electrolytic galvanizing	25

CLEVIS



CAV8DIST



CAV8UNIVERSAL



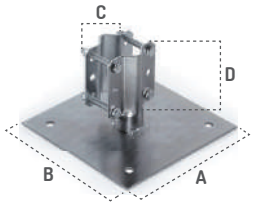
CAV8

Item	Code	Features	Pack. Pcs
CAV8DIST	287280	A: 60 mm - Plate 35x6 mm Clevis: plate 35x6 mm - Holes spacing 100 mm For masts Ø 30÷60 mm •Screws: M10x60 mm Hot-dipped zinc coating	15
CAV8UNIVERSAL	287281	Plate: 90x90x2,5 mm For masts Ø 25÷60 mm Screws: M8x60 mm Electrolytic galvanizing	25
CAV8	287282	Tape: 30x4 mm Screws: M6x40 mm For masts Ø 25÷60 mm Electrolytic galvanizing	60

AERIAL ACCESSORIES

PLATE

Slab, terrace plate Hot-dipped zinc coating



ZNSOLAI

Item	Code	Features	Pack. Pcs
ZNSOLAI	287283	A: 200 mm B: 200 mm sp. 3 mm 4 mounting holes Ø 14 mm C: 90 mm D: 90 mm sp. 2,5 mm Screws M8x50 mm for masts Ø 30÷50 mm	20

FRENCH STYLE BRACKETS

Hot dip galvanized chimney brackets (French style)

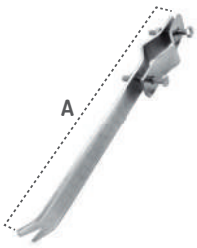


ZNFRCAMNEW28

Item	Code	Features	Pack. Pcs
ZNFRCAMNEW28	287285	28 cm Protrusion 160mm For masts Ø 25÷50 mm	20
ZNFRCAM32	287284	32 cm Protrusion 160mm For masts Ø 25÷50 mm	12

WALLMOUNT BRACKET

Reinforced U-shaped supports, to be walled in, electrolytic galvanizing.

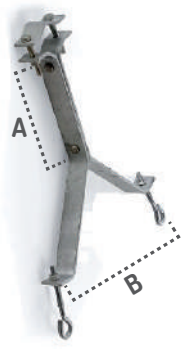


ZNMURO

Item	Code	Features	Pack. Pcs
ZNMURO	287288	A: 30cm - U Shape 30x15x4mm Clevis: tape 30x4mm - Holes spacing 95mm Screws: M8x60mm QST For masts Ø30÷60 mm	25

CHIMNEY BRACKET

Hot dip galvanized chimney brackets (French style).



ZNCAMINO

Item	Code	Features	Pack. Pcs
ZNCAMINO	287287	A: 14 cm B: 27 cm Tape: 30x3 mm Screws: M6x45 mm QST - Holes M6 Clevis: 30x3mm - Holes spacing 63 mm For masts Ø 25÷45 mm	30

AERIAL ACCESSORIES

BRACKET ACCESSORIES

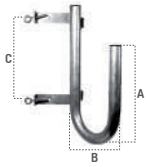
Accessories and brackets



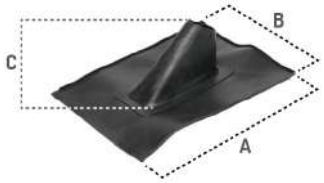
RALLATRIS



TENDIFILO



SUPCURVO180G



TEGOLAPVC



TEGOLAPIOMBO



CAPPUCCIOPVC



SUPUNIVERSAL



SUPMURO46

Item	Code	Features	Pack. Pcs
RALLATRIS	287289	Tape 20x3 mm Screws M6x45 mm QST For masts Ø 25÷45 mm Electrolytic galvanizing	100
TENDIFILO	287290	Rope Ø max 5 mm Electrolytic galvanizing	100
TEGOLAPVC	287292	Soft PVC tile A: 410 mm B: 300 mm C: 130 mm For mast up to Ø 60 mm	30
TEGOLAPIOMBO	287293	A: 500 mm B: 400 mm C: 170 mm Thickness mm 1 - Lead quality 99,9% PVC cap for masts Ø 40÷80 mm	5
CAPPUCCIOPVC	287294	A: 180 mm For masts Ø 35÷60 mm Soft PVC	200
SUPUNIVERSAL	287264	Tube Ø 40x1,4 mm A: 260 mm B: 250 mm Plate: 100x100x2,5 mm Clevis and nuts included Vertical and horizontal clamp For masts Ø 25÷76 mm Hot-dipped zinc coating	15
SUPUNIVERSAL-ST	287264-M	Tube Ø 40x1.5 mm Height: 600 mm Plate: 200x200x3 mm Hot-dipped zinc coating	8
SUPMURO26	287265	Wall mount and mast bracket Tube Ø 40x1,5 mm A: 240 mm B: 230 mm Plate 200x135x4mm Clevis not included 4 mounting holes Ø 10 mm C: 80 mm (holes spacing) 4 internal mounting holes Ø 12 mm C1: 95 mm Hot-dipped zinc coating	20
SUPMURO46	287266	Wall mount and mast bracket Tube Ø 40x1,5 mm A:440 mm B: 230 mm Plate 200x135x4mm (clevis not included) 4 mounting holes Ø 10 mm C: 80 mm (holes spacing) 4 internal mounting holes Ø 12 mm C1: 95 mm (holes spacing) Hot-dipped zinc coating	20
SUPCURVO180G	287267	Bended mast bracket Tube Ø 40x1,5 mm A: 400 mm B: 240 mm C: 350mm Hot-dipped zinc coating	8
PVP	210002	Mast clamp for panel aerials Ø max. 60mm	20
PV10	210011	Vertical mount accessories up to Ø max. 60mm masts. Hot-dipped zinc coating	30
BA914	280674	Base for dish mount (for dishes from Ø da 90 to 140mm) Mast Ø= 76mm	1
STM1	281801	Wall bracket Mast Ø = 40mm Thickness 1,2mm	1
ZPL-R650	287179	Guyed extendable mast Adjustable protrusion from 450 to 650mm	10
ZPL-R450	287180	Guyed extendable mast Adjustable protrusion from 300 to 450mm	12
BA6	293400	Plate for telescopic masts. suitable for masts with Ø 25 - 48mm.	20

Aerials

DISHES

PENTA Series

Aluminium and steel offset dishes with 68 and 85cm equivalent diameter



			DIGIT	PENTA85
Operating frequencies		GHz	10.7 - 12.75	10.7 - 12.75
Dimensions	Ø	mm	624 x 624	775 x 775
Offset angle		°	22.3	22.1
Efficiency			70%	70%
Gain	10.95 GHz	dB	36.5	39
Cross polarization		dB	37	38
First side lobe		dB	-32	-34
Noise temperature	Elevation 30°	k°	40	40
F/D equivalent ratio			0.7	0.7
Lobe amplitude	3dB		3	2.2
LNB holder		mm	23-28; 40; 60	23-28; 40; 60
Elevation angle			60° Maximum tilt	60° Maximum tilt
Mast mounting		mm	35-80	35-80
Disk Support Material			Steel - Aluminium/Zinc treatment	Steel - Aluminium/Zinc treatment
Wind resistance	150 km/h	kg	53	81

Single packaging

equivalent ø	Item	Code	Material	Color	Support 6° dual feed	Mounting kit	Pack. pcs.
68	**DIGIT-A**	211104	Steel	White	DFPDIGIT code 211003	ZNCDGT included	1
68	**DIGIT-GA**	211105	Steel	Grey	DFPDIGIT code 211003	ZNCDGT included	1
68	**DIGIT-RA**	211106	Steel	Red	DFPDIGIT code 211003	ZNCDGT included	1
68	**DIGIT**	211101	Aluminium	White	DFPDIGIT code 211003	ZNCDGT included	1
68	**DIGIT-G**	211102	Aluminium	Grey	DFPDIGIT code 211003	ZNCDGT included	1
68	**DIGIT-R**	211103	Aluminium	Red	DFPDIGIT code 211003	ZNCDGT included	1
85	**PENTA85-A**	211205	Steel	White	DFP85 code 211001	ZNC85 included	1
85	**PENTA85G-A**	211206	Steel	Grey	DFP85 code 211001	ZNC85 included	1
85	**PENTA85R-A**	211207	Steel	Red	DFP85 code 211001	ZNC85 included	1
85	**PENTA85**	211201	Aluminium	White	DFP85 code 211001	ZNC85 included	1
85	**PENTA85G**	211203	Aluminium	Grey	DFP85 code 211001	ZNC85 included	1
85	**PENTA85R**	211204	Aluminium	Red	DFP85 code 211001	ZNC85 included	1

Multiple packaging

equivalent ø	Item	Code	Material	Color	Support 6° dual feed	Mounting kit	Pack. pcs.
68	**DGTX10-A**	211112	Steel	White	DFPDIGIT code 211003	ZNCDGTX10 code 211110	10
68	**DGTX10-GA**	211116	Steel	Grey	DFPDIGIT code 211003	ZNCDGTX10 code 211110	10
68	**DGTX10**	211111	Aluminium	White	DFPDIGIT code 211003	ZNCDGTX10 code 211110	10
85	**P85X10-A**	211210	Steel	White	DFP85 code 211001	ZNC85X10 code 211208	10
85	**P85RX10-A**	211216	Steel	Red	DFP85 code 211001	ZNC85X10 code 211208	10
85	**P85GX10-A**	211217	Steel	Grey	DFP85 code 211001	ZNC85X10 code 211208	10
85	**P85X10**	211209	Aluminium	White	DFP85 code 211001	ZNC85X10 code 211208	10
85	**P85RX10-B**	211211	Aluminium	Red	DFP85 code 211001	ZNC85X10 code 211208	10
85	**P85GX10-B**	211212	Aluminium	Grey	DFP85 code 211001	ZNC85X10 code 211208	10

211224 - **ZNC85E80X10**: PENTA85 dishes mounting KIT with 80° maximum elevation, 10 pcs pack.

DISHES

60-85 cm
OFFSET DISHES Series

Aluminium and steel offset dishes with 60, 80 and 85cm diameter



PO80SCX50

			RO60AP	RO60A	RO80AP	RO80SC	RO85AP
Dimensions	Ø	mm	630 x 590	632 x 583	632 x 846	810 x 750	910 x 837
Offset angle		°	23	21	23	22.75	21
F/D equivalent ratio			0.65	0.66	0.66	0.66	0.66
Elevation angle			20/55	0/90	0/80	0/50	1/60
Mast mounting		mm	25-50	20-50	30-60	30-60	30-60
Dish material			Steel	Steel	Steel	Steel	Aluminium
Disk Support Material			Composite	Steel	Steel	Composite	Steel
Color			White	White grey	White	White grey	Grey
Efficiency	%		70%	69%	75%	75%	70%
Gain							
	10.7 GHz	dB	34.4	34.3	37.0	37.6	37.4
	11.7 GHz	dB	35.0	35.1	37.7	38.2	38.2
	12.7 GHz	dB	36.4	35.9	38.5	38.6	38.9
Wind resistance	120 km/h	kg	34	34	55.2	55.2	70

Single packaging

equivalent ø	Item	Code	Dish	Material	Support 6° dual feed	Mounting kit	Packing pcs.
80	**P80APN**	211316	RO80SC	Steel	-	ZO80SC included	1
85	**PO85AS**	287411	RO85AP	Aluminium	-	ZNO85PX5G code 289829 included	1

Multiple packaging

equivalent ø	Item	Code	Dish	Material	Support 6° dual feed	Mounting kit	Packing pcs.
60	**PO60APX5**	287185	RO60AP	Steel	-	ZNO60AP code 287187 incl.	5
60	**RO60AX10**	280610	RO60A	Steel	-	ZNO60AC code 289279	10
60	**RO60APX400**	287186	RO60AP	Steel	-	ZNO60AP code 287187	400
80	**PO80SCX50**	287402	RO80SC	Steel	DF80SC 287422	ZO80SC included	50
80	**RO80APX50**	289479	RO80AP	Steel	DFAN code 289487	ZNO80APN code 289480	50
85	**RO85APX5G**	289828	RO85AP	Aluminium	-	ZNO85PX5G code 289829	5

Aerials

DISHES

60-90 cm
COMPOSITE OFFSET DISHES Series

Composite offset dishes with 60, 75 and 90cm diameter; highly UV raw and physical shock resistant; glass fiber (S.M.C.) reinforced material



PO60CC

			PO60CC	PO75CC	PO90CC
Dimensions	Ø	mm	600x600	750x710	780x890
Offset angle		°	23	23	24
F/D equivalent ratio			0.6	0.6	0.66
Elevation angle			15/45	15/45	15/45
Mast mounting		mm	30-50	30-50	30-50
Dish material			S.M.C.	S.M.C.	S.M.C.
Disk Support Material			Steel	Steel	Steel
Color			White grey	White grey	White grey
Efficiency	%		70%	70%	70%
Gain					
	11.7 GHz	dB	36.4	37.6	38.5
Wind resistance	120 km/h	kg	34	47	80

Single packaging

equivalent ø	Item	Code	Dish	Material	Support 6° dual feed	Mounting kit	Packing pcs.
60	**PO60CC**	287525	RO60CC	S.M.C.	-	ZO60CC included	1
75	**PO75CC**	287526	RO75CC	S.M.C.	-	ZO60CC included	1
90	**PO90CC**	287524	RO90CC	S.M.C.	-	ZO60CC included	1

HIPER

DISHES

100-150 cm
OFFSET DISHES Series

Aluminium and steel offset dishes with 100, 120, 125 and 150cm diameter



RO100AP

			RO100C	RO100AC	RO100AP	RO120N	RO125AP	RO150
Dimensions	Ø	mm	970 x 1040	970 x 1040	1032 x 952	1245 x 1335	1345 x 1240	1614 x 1488
Offset angle		°	21	21	23	21.3	23	21.3
F/D equivalent ratio			0.66	0.66	0.66	0.66	0.66	0.66
Elevation angle			0/80	0/80	0/90	20/50	0/90	20/90
Mast mounting		mm	30-90	30-90	35-60	55-100	40-60	55-100
Dish material			Aluminium	Steel	Aluminium	Aluminium	Aluminium	Aluminium
Disk Support Material			Steel	Steel	Steel	Steel	Steel	Steel
Color			White grey	White	Grey	White	Grey	White
Efficiency	%		70%	70%	72%	70%	74%	70%
Gain								
	10.7 GHz	dB	39.7	39.7	39.4	41.1	41.0	42.6
	11.7 GHz	dB	40.2	40.2	40.0	41.9	41.6	43.4
	12.7 GHz	dB	40.5	40.5	40.6	42.6	42.4	44.2
Wind resistance	120 km/h	kg	91	91	91	162	160	235

Single packaging

equivalent ø	Item	Code	Dish	Material	Support 6° dual feed	Mounting kit	Packing pcs.
100	**PT100C**	289291	RO100C	Aluminium	DFO100C code 289294	ZNO100C code 289285 included	1
100	**PT100AC**	289293	RO100AC	Steel	DFO100C code 289294	ZNO100C code 289285 included	1
125	**RO120N**	289197	RO120N	Aluminium	DFO120N code 289199	AZO120N code 289196	1
150	**RO150**	289139	RO150	Aluminium	DFO120N code 289199	AZO150 code 289140	1

Multiple packaging

equivalent ø	Item	Code	Dish	Material	Support 6° dual feed	Mounting kit	Packing pcs.
100	**RO100ACX6**	289299	RO100AC	Steel	DFO100C code 289294	ZNO100C code 289285	6
100	**RO100APX5G**	289830	RO100AP	Aluminium	DFAN code 289487	ZNO100PX5 code 289831	5
125	**RO125APX3G**	289832	RO125AP	Aluminium	-	ZNO125PX3 code 289833	3

Aerials

LNB

UNIVERSAL LNB Series

UX LNB Series guarantees an optimal signal reception and fulfils every system requirements: from single distribution to complex multiuser or hospitality plants



UX-S LTE

Item	Code	Description	Outputs	Gain	Consumption	LTE protection
UX-S LTE	287337	Single LNB with 1 universal output and LTE shielding, **Sky Italy approved**	1	60	110	-54
UX-TW LTE	287338	Twin LNB with 2 universal outputs and LTE shielding	2	55	130	-70
UX-TW LTE FR	287424	Twin LNB with 2 universal outputs and LTE filter on UX-QT LTE mechanics	2	60	150	-54
UX-QD LTE	287339	Quad LNB with 4 universal outputs and LTE shielding, **Sky Italy approved**	4	55	150	-70
UX-OCTO LTE	287340	Octo LNB with 8 universal outputs and LTE shielding	8	55	200	-54
UX-QT LTE	287302	Quattro LNB with 4 separate polarities outputs H/V and LTE shielding, **Sky Italy approved**	4	57	160	-60
UX-WB LTE	287541	UX-WB LTE is the new LNB converter of the UX family, **Wide Band with 2 outputs** with separate polarities H and V	2 (V e H)	55	100	-70
UX-MBS6 LTE	287139	6° monoblock LNB with 1 universal output	1	55	110	-70
UX-MBTW6 LTE	287140	6° monoblock LNB with 2 universal outputs	2	55	190	-70
UX-MBQD6 LTE	287141	6° monoblock LNB with 4 universal outputs	4	55	190	-70

LNB

SCD2 (dCSS) LNB Series

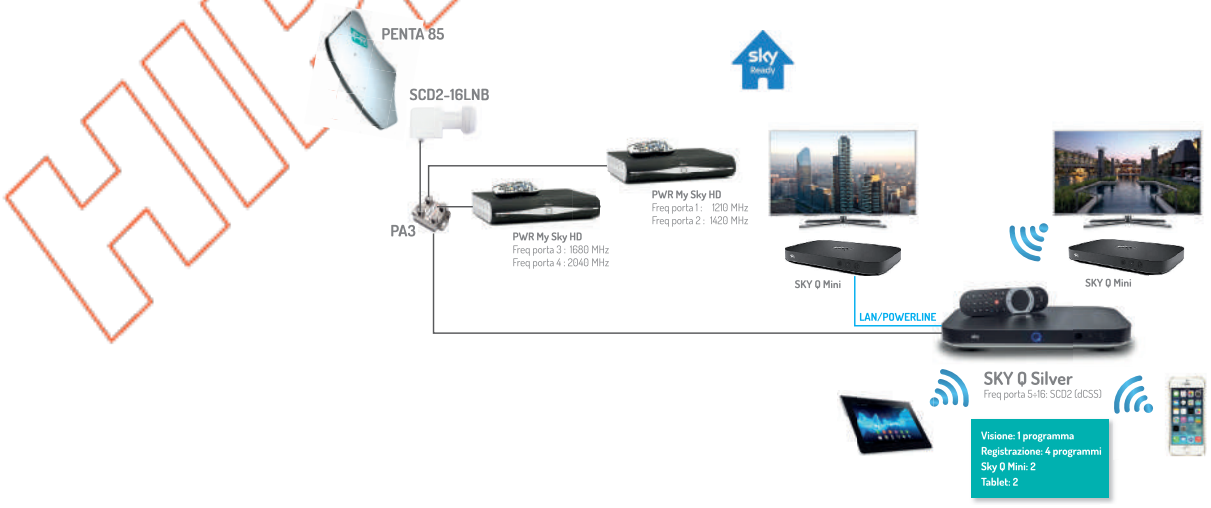
SCD2 (dCSS) LNB with 1 output which is able to serve up to 4 SCR SAT receivers and, at the same time, 12 frequencies used by **new SCD2 (dCSS) decoders**; both functionalities using only one cable. It can be used to increase the number of TV services.



SCD2-16LNB

		SCD2-16LNB
Code		287421
Input frequency	GHz	10.7-11.7 / 11.7-12.75
Outputs		1
Users		4 SCR, 12 SCD2 (dCSS)
Output frequency	MHz	1210, 1420, 1680, 2040 (EN50494 standard) 985, 1050, 1115, 1275 1340, 1485, 1550, 1615 1745, 1810, 1875, 1840 (EN50607 standard)
Gain	dB	65
Output level for each transponder	dBµV	84
Supply voltage	V	11.5 - 19
Consumption	mA	360

INSTALLATION EXAMPLE



SATELLITE KIT

KIT SAT Series

Satellite KIT with: dish, mounting kit and LNB



KIT P80APK

Item	Code	Description
KIT KIT60SC	287473	Consisting of 1 PO60SC + 1 UX-S LTE
KIT P80APK	211308	Composed of: 1 RO80SC + 1 ZO80SC + 1 UX-S LTE
KIT P85AK	211220	Composed of: 1 PENTA85-A + 1 UX-S LTE

DISH ACCESSORIES

DiSEqC Series

Line switch controlled with DiSEqC commands on coaxial cable, controlled by SAT receivers through DiSEqC commands.

- They allow to switch through 2 or 4 LNBs using digital commands generated by SAT receivers on coaxial cable (for example: Hotbird 13°E and Astra 19,2°E)
- Plastic protection for outdoor installations included in the package.



DSQ21J



DSQ41J

		DSQ21J	DSQ41J
Code		289588	289589
Bands		950 - 2300	950 - 2300
Inputs	No.	2	4
Outputs	No.	1	1
Through loss	dB	4	4
DiSEqC		2.0	2.0
Insulation	dB	35	35
Quantity	Pcs.	1	1

DISH ACCESSORIES

AMPLIFIERS Series

SAT line amplifier



AS20

		AS20
Code		284013
Bands	MHz	950 - 2150
Gain	dB	12-17
Noise figure	dB	8
Operating voltage	V	13 - 18
Consumption	mA	40@13V
Impedance	Ohm	75
Connector		F female
Fixed output level	dBµV	105
Quantity	Pcs.	1
Dimensions	mm	1 x 1.5 x 70

FRACARRO ANTENNA

Electronic Mast and indoor equipment

LTE FILTERS

LTE and FM Filters 39

COUPLERS AND MIXERS

MX EVO Series 39

MIX TV+SAT series 40

MAST AMPLIFIER

ES Series 40

MAP EVO Series 41

MAP PRO Series 42

LINE AMPLIFIERS

AT Series 43

POWER SUPPLY UNITS

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INDOOR AMPLIFIERS

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MULTIBAND AMPLIFIERS

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SATELLITE HEAD AMPLIFIERS

AMP Series 47

PROGRAMMABLE HEADENDS

FRPRO HD Series 48

INDOOR MODULATORS

Digital modulator Series 49

HIPER ANTENA

LTE FILTERS



LTE FIlter 60

LTE and FM Filters

FM and LTE indoor/outdoor filters developed to **reduce the interferences coming from any eventual LTE (4G) and FM signals** . Availabe with cutoff frequencies as 790MHz or 694MHz.

- High selectivity filters for LTE or FM designed to limit interferences coming from unwanted signals
- Low inserttion loss
- IP66 outdoor mounting
- Singol input and singol output.

Item	Code	IN	Bands (MHz)	Return loss (dB)	Insertion loss (dB)	Selectivity (dB)	Filtered band (MHz)	Pack. Pcs	Dimensions (mm)
LTE Filter	226709	1	47-790	<-10	1.5	30 (801MHz)	801 - 862	1	70 x 20 x 20
LTE Filter 59	226711	1	47-782	<-10	1.5	30 (791MHz)	791 - 862	1	70 x 20 x 20
LTE Filter 48	226715	1	47-694	<-10	1.5	30 (704MHz)	704 - 862	1	70 x 20 x 20
FM Filter	226714	1	108-862	<-12	1.5	30 (88-108MHz)	87 - 108	1	70 x 20 x 20
MX Filter 700	226716	1	DC-694	<-12	< 2	> 25	733 - 862	1	107 x 60 x 95

COUPLERS AND MIXERS



MX TTTT EVO

MX EVO series

New multi-input mast mixers/demixers for amplification and mixing of signals from one or more antennas.

Zamak die-cast frame with metal covers for extremely high noise shielding.

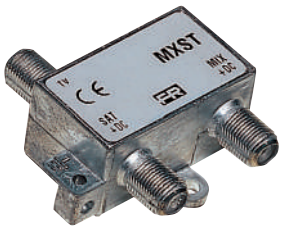
"F" type connectors with **the innovative locking system of the new PVC outdoor protective cover** and the rotation of the metal frame guarantee maximum safety, ease and speed of installation.

- Mast strap up to 60mm
- Working temperature from -10 to 55°C.
- Dimensions 120x50x105mm.

Item	Code	IN	IN 1	IN 2	IN 3	IN 4	Outputs	Return Loss (dB)	VHF/ UHF loss (dB)	Pack. Pcs
MX TT EVO	223273	2	FM+3+DAB+UHF (+dc)	FM+3+DAB+UHF (+dc)	-	-	1	≥10	3.5 / 4	1
MX TTTT EVO	223275	4	FM+3+DAB+UHF (+dc)	FM+3+DAB+UHF (+dc)	FM+3+DAB+UHF (+dc)	FM+3+DAB+UHF (+dc)	1	≥10	6.5 / 7	1
MX 3U EVO	223271	2	FM+3+DAB	UHF (+dc)	-	-	1	≥10	0.7 / 0.2	1
MX 3U 2OUT EVO	223272	2	FM+3+DAB	UHF (+dc)	-	-	2	≥10	4.3 / 3.6	1
MX TSAT EVO	223279	2	FM+3+DAB+UHF	SAT (+dc and DiSEqC)	-	-	1	≥10	0.1 / 0.5	1
MX FM3U EVO	223278	3	FM	3+DAB	UHF (+dc)	-	1	≥10	1.3, / 0.7	1
MX 3UU EVO	223274	3	FM+3+DAB	UHF	UHF (+dc)	-	1	≥10	0.4 / 3.8	1
MX 345 EVO	223277	3	3+DAB	IV	V (+dc)	-	1	≥10	1 / 1	1
MX 345U EVO	223276	4	3+DAB	IV	V	UHF (+dc)	1	≥10	1.2 / 1.2	1

Electronic mast and indoor equipment

COUPLERS AND MIXERS



MXST

MIX TV+SAT series

Indoor TV/SAT mixers; can be used also as demixers connecting the input to the "MIX" connector. Two versions: standard and with high isolation between the inputs.

- High isolation between the inputs
- Working temperature from -10 to 55°C.

Item	Code	IN	IN 1	IN 2	IN 3	Outputs	Return Loss (dB)	Loss IN1 (dB)	Loss IN2 (dB)	Loss IN3 (dB)	Pack. Pcs
MXST	226400	2	TV (47-862 MHz)	SAT + DC (950-2150MHz)	-	1	15	0.5	0.5	-	20
PAS0303011	PAS0303011	2	TV (47-862 MHz)	SAT + DC (950-2150MHz)	-	1	10	0.5	0.5	-	1

MAST AMPLIFIERS



ES1/Q

ES series

Mast amplifiers for signals coming from different aerials. The amplifiers are remotely feeded through the 12Vdc output connector.

- Mast strap up to 60mm
- Working temperature from -10 to 55°C.
- Dimensions: 74x36x58mm.

Item	Code	IN	Frequency (MHz)	Gain (dB)	Out. Lev. (dBµV)	Noise figure (dB)	Current abs. (mA)	Pack. Pcs
ES1/Q	226905	1	174 - 862	12	115	4	28	10
ES1/RVU	226909	2	470 - 862	12	115	4	27	10
ES2/Q	226913	1	174 - 862	22	115	4	50	10
ES2RT	226912	1	47 - 862	23	115	4	50	10
ES2/RU	226917	1	470 - 862	25	115	4	55	10

MAST AMPLIFIERS



MAP4r3+U LTE+

MAP EVO Series

Fully shielded die cast housing mast amplifiers to mix and amplify signals coming from different aerials
Zamak die-cast frame with metal covers for extremely high noise shielding.
"F" female connector and new plastic outdoor cover for a quick and easy installation
Separate VHF/UHF amplification with selectable remote feeding on all UHF inputs.
Power presence LED
Fully RED compliant

- Innovative **"Clipper"** feature (available on some models).
- Mast strap up to 60mm
- Working temperature from -10 to 55°C.
- Gain adj. 15dB
- Supply voltage 12 or 24Vdc
- Very low noise figure

DVB T2 HEVC compliant · 4G LTE 790 MHz · 5G LTE 700 MHz · CLIPPER RED compliant

Item	Code	IN	Bands	Out. Lev. (dBµV)	Gain (dB)	Adj. (dB)	LTE filter	Current abs. (mA)
MAP3IU LTE700	223729	1	UHF	118	30	15	5G (694MHz)	90@24Vdc
MAP2r3+U T2	223753	1	III+DAB + UHF	112, 116	20, 25	15, 15	4G/5G switch	80@12Vdc
MAP4r3+U T2+●	223751	1	III+DAB + UHF	112, 116	22, 42	15, 15	4G/5G switch	125@12Vdc
MAP4rU T2+●	223752	1	UHF	116	42	15	4G/5G switch	100@12Vdc
MAP4rU LTE700+●	223704	1	UHF	116	42	15	5G (694MHz)	100@24Vdc
MAP3r3U T2	223755	2	III+DAB, UHF	112, 116	21, 28	15, 15	4G/5G switch	80@12Vdc
MAP3rFM+3U 700	223711	2	FM+III+DAB, UHF	112, 116	22, 28	15, 15	5G (694MHz)	85@24Vdc
MAP3r3+UU T2	223756	2	III+DAB + UHF, UHF	112, 116	28, 28	15, 15	4G/5G switch	60@12Vdc
MAP3r3Upass LTE	223724	2	3+DAB, UHF(+dc)	110, -	21, -	15, -	-	35@12Vdc
MAP4r3U T2+●	223754	2	III+DAB, UHF	112, 116	22, 42	15, 15	4G/5G switch	125@12Vdc
MAP3r3UU T2	223757	3	III+DAB, UHF, UHF	112, 116	21, 28, 28	15, 15, 15	4G/5G switch	105@12Vdc
MAP4r3UU T2+●	223758	3	III+DAB, UHF, UHF	112, 116	22, 40, 40	15, 15, 15	4G/5G switch	125@12Vdc
MAP3r3UU 2LTE	223712	3	III+DAB, UHF, UHF	112, 116	26, 28, 28	15, 15, 15	4G (790MHz)	140@12Vdc
MAP3rFM+3UU 2LTE	223713	3	FM+III+DAB, UHF, UHF	112, 116	26, 28, 28	15, 15, 15	4G (790MHz)	140@12Vdc
MAP2r345U T2	223759	4	III+DAB, IV, V, UHF	112, 116	21, 25, 25, 25	15, 15, 15, 15	4G/5G switch	80@12Vdc
MAP2r345U T2/..	223750	4	III+DAB, IV, V, UHF	112, 116	21, 25, 25, 25	15, 15, 15, 15	4G/5G switch	80@12Vdc
MAP2rFM3USAT	223716	4 DiSEqC passthrough	FM, III+DAB, UHF, SAT	112, 116	22, 20, 25, -1	15, 15, 15, -	-	80@12Vdc or STB

●CLIPPER Technology

KIT MAP

Kit with MAP amplifier and power supply unit.

Item	Code	LTE filter	Description
MAP3IU LTE700K	223730	5G (694MHz)	MAP3IU LTE700 and PSU342
MAP4rU LTE700+K	223718	5G (694MHz)	MAP4rU LTE700+ and PSU342
MAP3rFM+3U 700K	223717	5G (694MHz)	MAP3rFM+3U 700 and PSU342
MAP4r3+U LTE+ K	223722	4G (790MHz)	MAP4r3+U LTE+ and PSU412
MAP4r3U LTE+ K	223720	4G (790MHz)	MAP4r3U LTE+ and PSU412
MAP4r3UU LTE+ K	223721	4G (790MHz)	MAP4r3UU LTE+ and PSU412
MAP3r3UU 2LTE K	223723	4G (790MHz)	MAP3r3UU 2LTE and PSU412
MAP2rFM3USATK	223719	-	MAP2rFM3USAT and PSU511

LENA

Electronic mast and indoor equipment

MAST AMPLIFIERS



MAP4r3+U LTE+

MAP PRO Series

New **high-performance** multi-input mast amplifiers for amplification and mixing of signals from one or more antennas.

Innovative selector **HI/Low** which allows you to adjust the maximum level of UHF output signal on two different levels.

Zamak die-cast frame with metal covers for extremely high noise shielding.

"F" type connectors with **the innovative locking system of the new PVC outdoor protective cover** and the rotation of the metal frame guarantee maximum safety, ease and speed of installation.

Amplification and VHF/UHF separate management and easy insertion of remote powering.

Power presence LED

The whole new range of amplifiers perfectly complies with the regulatory obligations concerning the Radio Spectrum, Electromagnetic Compatibility and Safety set out in the recent directives (RED Compliant).

- **HI/Low** selector which allows you to quickly set the maximum signal level in the UHF band
- Innovative **"Clipper"** feature (available on some models).
- Mast strap up to 60mm
- Working temperature from -10 to 55°C.
- Gain adj. 15dB

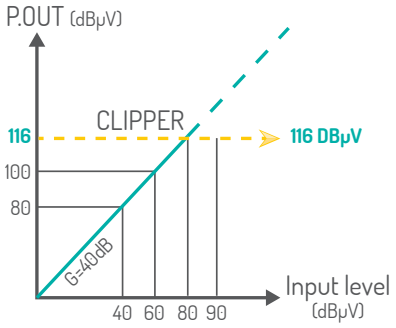
DVB T2 HEVC compliant · 4G LTE 790 MHz · CLIPPER RED compliant

Item	Code	IN	Bands	Out. Lev. (dBµV)	Gain (dB)	Adj. (dB)	Noise figure (dB)	Current abs. (mA)	Pack. Pcs
MAP4R3+4+5 PRO ●	223727	1	III+DAB + 4 + 5 (separated regolation)	115, 120	23, 41, 41	15, 15, 15	7, 6	155@12Vdc	-
MAP4R3UU PRO ●	223726	3	III+DAB, UHF, UHF	115, 120	23, 40, 40	15, 15, 15	7,5	150@12Vdc	-
MAP4R345U PRO ●	223725	4	III+DAB, 4, 5, UHF	115, 120	23, 40, 40, 40	15, 15, 15, 15	7,5	150@12Vdc	-
MAP4R345UPRO/.. ●	223728	4	III+DAB, 4, 5, UHF	115, 120	23, 40, 40, 40	15, 15, 15, 15	7,5	150@12Vdc	-

● CLIPPER Technology

CLIPPER Technology ●

Automatic circuit (made by FRACARRO) which limits the gain of the UHF input in order to **guarantee the maximum RF output level** and at the same time **minimizing the intermodulation**. (RED compliant)



The European directives

Each model complies with the Radio Spectrum and the Electromagnetic Compatibility and Safety indicated in recent European directives. **201453/UE, 2011/65/UE. RED compliant**.

ANTENA

LINE AMPLIFIERS



AT14LTE59

AT Series

Indoor/outdoor wide band line amplifiers 174-790MHz, gain 14dB, developed to be used as pre- amplifier with remote supply from the output

- Built-in LTE filter
- IP66 degree of protection
- 12Vdc

Item	Code	IN	Input bands	Gain (dB)	Out. Lev. (dBµV)	Noise figure dB	Current abs. (mA)	Pack. Pcs
AT14LTE59	226712	1	VHF + UHF	14	115	2	30	1
AT14LTE60	226713	1	VHF + UHF	17	115	2	30	1

POWER SUPPLY UNITS

PSU and MINI POWER series

High efficiency switching power supply unit, low consumption, fully shielded.



MINIPOWER12P



MINIPOWER12



PSU342

Item	Code	Outputs	Voltage Mains (Vac,Hz)	Max. current (mA)	Bands MHz	Plug	Insertion loss (dB)	Pack. Pcs	Dimensions mm
MINI POWER 12P	270021	1	12	200	5-862	B type	0.5	1	42 x 56 x 38
MINI POWER 12	270020	1	12	200	5-862	Clamp	0.5	1	42 x 56 x 38
PSU412	289562	2	12	200	5-862	B type	4	1	92x49x109
MINI POWER 24P	270024	1	24	130	5-862	B type	0.5	1	42x56x38
MINI POWER 24	270023	1	24	130	5-862	Clamp	0.5	1	42x56x38
PSU342	289564	2	24	100	5-862	B type	4	1	92x49x109
PSU511	289851	1	12	200	5-2400	B type	2	1	92x49x109

Electronic mast and indoor equipment

POWER SUPPLY UNITS



AM50N

AM Series

AM series power supply units to cover several needs, from 50 to 100mA, clamp coaxial connector

- Output voltage 12Vdc
- Working temperature from -10 to 55°C.
- Clamp Connectors
- Insulation Class II
- Mains 220-230Vac 50-60Hz.
- Dimensions 50x87x46 mm.

Item	Code	Outputs	Voltage Mains (Vac,Hz)	Max. current (mA)	Bands (MHz)	Insertion loss (dB)	Connector	Pack. Pcs
AM50N	289112	1	12	50	5-862	0.2	Clamp	20
AM100N	289113	1	12	100	5-862	0.2	Clamp	20
AM102N	289119	2	12	100	5-862	4	Clamp	20

INDOOR AMPLIFIERS



AFI121T

AFI series

Indoor amplifiers with built-in power supply and F connector to amplify and distribute DVB/T-T2 and DVB/S-S2 signals on residentail buidings, houses or flats.

- Switching power supply, low power consumption
- Built-in screwdriver to adjust gain and slope
- Under cover adjustment
- Hidden wall mount screws
- Green led - power on
- Mains 220-230Vac 50-60Hz.
- Insulation Class II
- Working temperature from -10 to 55°C.

Item	Code	IN	Bands	Outputs	Out. Lev. (dBµV)	Gain (dB)	Adjustment (dB)	Noise figure (dB)	Pack. Pcs
AFI121T	223231	1	VHF - UHF	2	105	15, 15	-	4, 4	1
AFI112T	223230	1	VHF - UHF	1	108	20, 20	15, 15	4, 4	1
AFI122T	223233	1+ return path	VHF - UHF	2	106, 108	10, 15, 20	15, 15, 15	5.5, 5.5, 5.5	1
AFI313T	223236	3 separatge adj.	FM, III+DAB, UHF	1	110	25, 25, 30	15, 15, 15	4.5, 4.5, 4.5	1
AFI123T	223235	1 (with separate V/U adjustments)	VHF, UHF	2	106	30, 30	15, 20	4.5, 4.5	1
AFI123W	223237	1	VHF , UHF , SAT	1	100	25, 25, 30	20, 20	5.5, 5.5, 6.5	1

INDOOR AMPLIFIERS



MINIBOOST

MINIBOOST Series

Wide band amplifier
High efficiency in small dimensions
Fully shielded
F type connector

- Green led - power on
- Mains 220-230Vac insulation class II.
- Operating temperature 0 ÷ 45°C.

Item	Code	IN	Bands	Gain (dB)	Noise figure (dB)	Mains (Vac, Hz)	Out. Lev. (dBµV)	Pack. Pcs
MINI BOOST 12P	270025	1	III+DAB , UHF	12, 12	4, 4	220–230, 50/60	115	1

MULTIBAND AMPLIFIERS



J31B

J series

Push-Pull line amplifiers with really high band flatness, fully shielded with F connectors.

- EN 60065 and EN 50083-2 conformity .
- Working temperature from -10 to 55°C.
- Mains 220-230Vac 50-60Hz.

Item	Code	IN	Bands	Gain (dB)	Adjustment (dB)	Noise figure (dB)	Out. Lev. (dBµV)
J21B	223023	1	III+DAB , UHF	21	15	10	124
J31B	223024	1	III+DAB , UHF	31	15	10	117

HIPERANTENA

Electronic mast and indoor equipment

MULTIBAND AMPLIFIERS



MBJ3r345U LTE

MBJ EVO Series

Indoor multi-input amplifiers to mix and amplify signals coming from different aerials

The innovative A.B.L.A. (Automatic Building Level Adjustment) function is able to keep stable the set up thought a trimmer output level.

- **A.B.L.A. Technology**
- Separate amplification VHF/UHF and high shielding
- Noise figure VHF 6dB and UHF 9dB
- ABS (V0 class) chassis
- -60% volume
- DIN rail clamp
- Switching power supply (>80% efficiency)
- Mains 220-230Vac insulation class II.
- Short circuit protection
- operating temperature -10 to +55°C
- (*) version available for special tuning on the cut between band IV and band V.

Item	Code	IN	Bands	Gain (dB)	Adjustment (dB)	LTE filter	Out. Lev. (dBµV)
MBJ2r3+4+5 T2	223617	1	III+DAB , IV , V	25, 25, 25	20, 20, 20	4G/5G switch	110, 115
MBJ3r3+4+5 T2	223620	1	III+DAB , IV , V	35, 35, 35	20, 20, 20	4G/5G switch	110, 120
MBJ3r3U T2	223621	2	III+DAB , UHF	35, 35	20, 20	4G/5G switch	110, 120
MBJ2r3UU T2	223619	3	III+DAB , UHF , UHF	20, 20, 20	20, 20, 20	4G/5G switch	110, 115
MBJ3r3UU T2	223616	3	III+DAB , UHF , UHF	32, 32, 32	20, 20, 20	4G/5G switch	110, 120
MBJ2rFM+3UU LTE	223611	3	FM+III+DAB , UHF , UHF	20, 20, 20, 20	20, 20, 20, 20	4G (790MHz)	110, 115
MBJ3rFM+3UU LTE	223610	3	FM+III+DAB , UHF , UHF	32, 32, 32, 32	20, 20, 20, 20	4G (790MHz)	110, 120
MBJ3rFM+3UU 700	223612	3	FM+III+DAB , UHF , UHF	32, 32, 32, 32	20, 20, 20, 20	5G (694MHz)	110, 120
MBJ2r345U T2	223618	4	III+DAB , IV , V , UHF ,..	20, 20, 20, 20	20, 20, 20, 20	4G/5G switch	110, 115
MBJ2r345U T2/..*	223622	4	III+DAB , IV , V , UHF ,..	20, 20, 20, 20	20, 20, 20, 20	4G/5G switch	110, 115
MBJ3r345U T2	223615	4	III+DAB , IV , V , UHF	35, 35, 35, 35	20, 20, 20, 20	4G/5G switch	110, 120
MBJ3r345U T2/..*	223623	4	III+DAB , IV , V , UHF ,..	35, 35, 35, 35	20, 20, 20, 20	4G/5G switch	110, 120

A.B.L.A. Technology

Automatic Building Level Adjustment

A.B.L.A. Technology: FRACARRO's exclusive system to keep constant the RF output level, set by the dedicated trimmer, even if the RF input level of each input changes (A.B.L.A. indipendents circuits).

MULTIBAND AMPLIFIERS



MBX5740T2

MBX Series

Multiband amplifier to amplify and mix signals coming from different aerials.
Zinc alloy die cast housing fully shielded
Separate amplification between VHF and UHF up to 125dBµV with push-pull amplification
High gain and high output level to be used on building and residential systems.

- HIgh output level up to 130dBµV
- Test output -30dB
- Gain adj. under the metal cover
- Very low noise figure
- Switching power supply (>80% efficiency)
- Remote feeding on all inputs, 100mA
- Mains 220-230Vac insulation class II.
- operating temperature -10 to +55°C
- (*) version available with UK mains plug.

Item	Code	IN	Bands	Gain (dB)	Adjustment (dB)	LTE filter	Out. Lev. (dBµV)
MBX5710 T2	235125	1	VHF , UHF	43, 43	20, 20	4G/5G switch	122, 125
MBX5720 T2	235126	2	VHF , UHF	43, 43	20, 20	4G/5G switch	122, 125
MBX5541T2	235124	4	FM , III+DAB , UHF , UHF	31, 30, 30, 30	20, 20, 20, 20	4G/5G switch	122, 125
MBX5741T2	235123	4	FM , III+DAB , UHF , UHF	35, 38, 43, 43	20, 20, 20, 20	4G/5G switch	122, 125
MBX5741LTEUK*	235114	4	FM , III+DAB , UHF , UHF	35, 38, 43, 43	20, 20, 20, 20	4G (790MHz)	122, 125
MBX5741LTE700	235115	4	FM , III+DAB , UHF , UHF	35, 38, 43, 43	20, 20, 20, 20	5G (694MHz)	122, 125
MBX5540T2	235122	4	III+DAB , IV , V , UHF	31, 30, 30, 30	20, 20, 20, 20	4G/5G switch	122, 125
MBX5740T2	235121	4	III+DAB , IV , V , UHF	38, 43, 43, 43	20, 20, 20, 20	4G/5G switch	122, 125

SATELLITE HEAD AMPLIFIERS



AMP9762UK

AMP Series

Satellite amplifiers with terrestial mix in to be used as sat boosters for IF-IF systems.
Wall mount support (MBX0001) to keep space on the product back for cable pass through.

- Low RF insertion loss
- Switching power supply (>80% efficiency)
- Gain adj. under the metal cover
- Mains 220-230Vac insulation class II.
- Working temperature from -10 to 55°C.

Item	Code	IN	Bands	Gain (dB)	Adjustment (dB)	Noise figure (dB)	Out. Lev. (dBµV)
AMP9764	235053	2	VHF+UHF , SAT	-2, 40	-, 20	-, 10	-, 125
AMP9564	223371	2	RC+FM +VHF+UHF, SAT	-2, 37-43	-, 15	-, 7	-, 120
AMP9762	235051	1	RC + VHF + UHF	25, 40	20, 20	8, 8	120
AMP9763	235052	1	RC + VHF + UHF + SAT	40, 40, 40	20, 20, 20	8, 8, 10	120, 125
AMP9762UK	235054	1	RC + VHF + UHF	25, 25	20, 20	3, 3	115
AMP9763AU	235057	1	RC + VHF + UHF (694MHz) + SAT	42 42, 41	20, 20, 20	8, 8, 10	120, 125

FRACARRO

Electronic mast and indoor equipment

PROGRAMMABLE HEAD-ENDS



FRPRO EVO HD

FRPRO HD Series

FRPRO HD head-ends family to carry out high-selecivity programmable filters

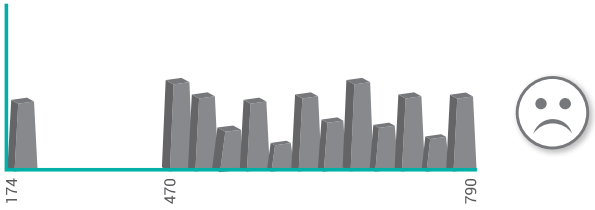
FRPRO HD head-ends are able to filter, convert frequencies, amplify and distribute a large number of DVB-T2/T digital terrestrial muxes both in VHF or UHF band.

- Perfect signal equalization
- Isofrequency filtering or freq. conversion
- AGC on each mux
- Automatic LTE filtering
- Easy and quick installation

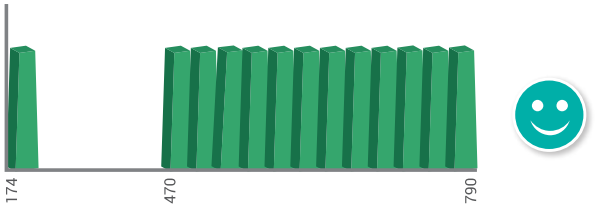
		FRPRO EVO HD	FRPRO LIGHT HD
CodE		287434	287523
Input			
Inputs	No.	5	4
Input bands	MHz	FM , 4x VHF/UHF	FM, VHF+DAB, UHF1, UHF2
Filters/Channels for filter	No.	Flexible Matrix 32/1..6	Flexible Matrix 15/1..6
FM Band	MHz	88 - 108	88 - 108
VHF+DAB Band	MHz	174 - 240	174 - 240
LTE protection	MHz	470-862 or 470-790 or 470-694 AUTO LTE Filter	470-862 or 470-790 or 470-694 AUTO LTE Filter
Gain adj.	dB	>75 (auto AGC)	>60 (auto AGC)
Output			
Max out level	dBµV	113 (FM), 118 (for each VHF/UHF filter)	113 (FM), 108 (for each VHF/UHF filter)
Level adj.	dB	20	20
FM+DAB atten./Slope adj.	dB	15/15	15
Selectivity	dB	50@1MHz	50@1MHz
Typical MER	dB	35	35
Main features			
Supply voltage	Vac,Hz	100-240, 50-60	100-240, 50-60
Consumption	W	15	12
Load and save configuration		SD card	-
Remote voltage	V	12/24	12/24
Remote current	mA	100	100
Dimensions (l x h x w)	mm	217x165x59	217x165x59
operating temperature	C°	-5 to +50°	-5 to +50°

Perfect Equalization

Input signal not equalized



Perfectly equalized and amplified output signal



INDOOR MODULATORS

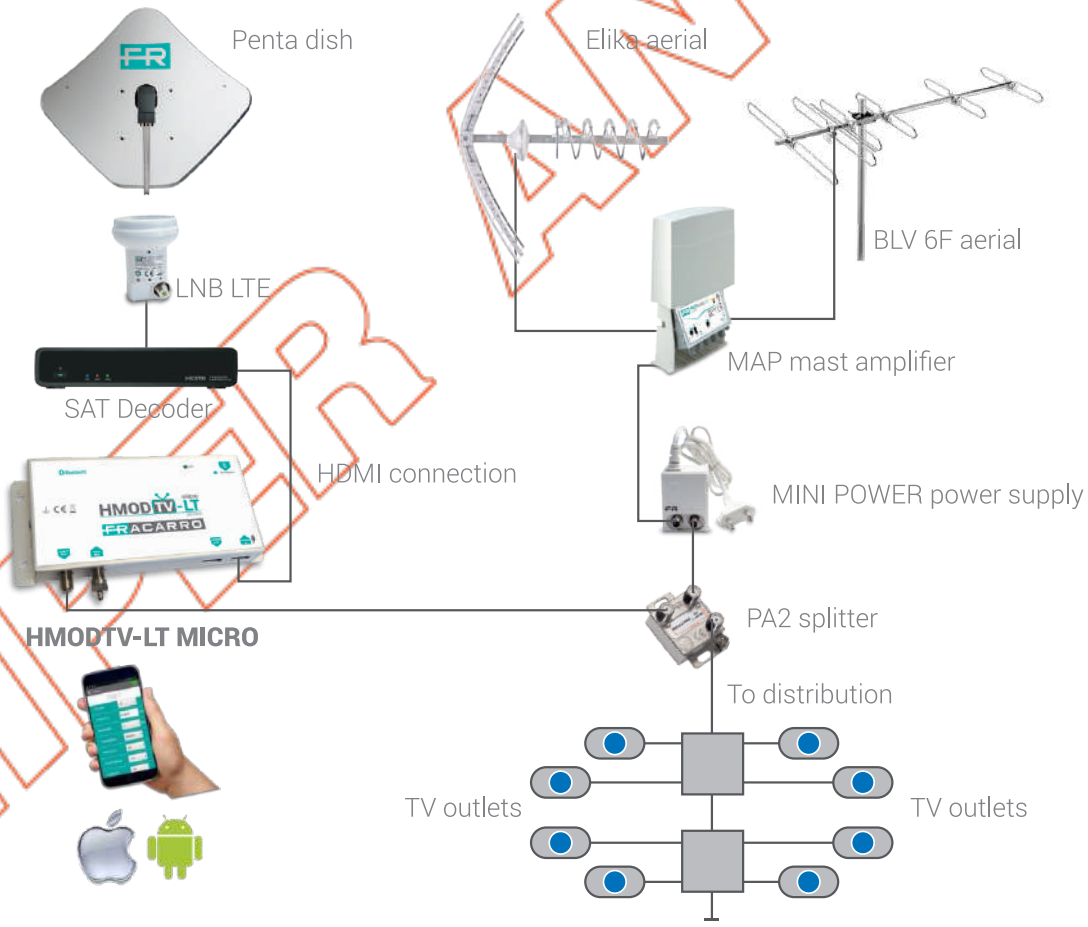
Digital modulator Series

High **DVB-T "Home" quality** indoor digital modulators with **loop through on the HDMI output port**; they receive a signal from the HDMI input and convert it into DVB-T digital terrestrial on the output F connector, into which the signal from the antenna or another modulator can then be mixed. **The excellent video resolution (Full HD 1920x1080-30p) and the output modulation quality (MER 35dB)** make these modulators the ideal solution to distribute in DVB-T technology, within an existing coaxial network, the SD or HD digital signals received from any device (eg DVD player, decoder or camera). Also available with **RCA input** for Stereo Audio/Video primary analog signals or backup for HDMI.

- **Easy installation** with programming on keyboard and display or, on MICRO version, via Bluetooth with free application;
- **Mixing** of the signal coming from the **antenna** or from another modulator;
- **HDMI loop through** output connector available on all models;
- MPEG-4 AVC/H.264 video encoding with Full HD 1920x1080-30p resolution;
- VHF and UHF output band with typical MER > 35dB on the UHF channel
- Metal Frame miniaturized to have a **high shielding** against interfering and excellent heat dissipation.

HIGH ANTENNA

Installation example

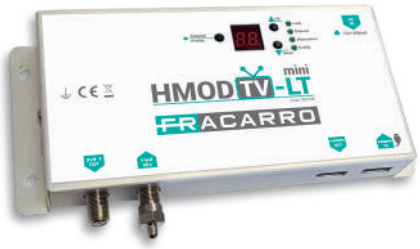


Electronic mast and indoor equipment

INDOOR MODULATORS



HMODTV-LT



HMODTV-LT MINI



HMODTV-LT MICRO

Item		HMODTV-LT	HMODTV-LT MINI	HMODTV-LT MICRO
CodE		287544	287546	287545
Inputs	No.	3 (HDMI, RCA, RF DVB-T MIX)	2 (HDMI, RF DVB-T MIX)	2 (HDMI, RF DVB-T MIX)
Outputs	No.	2 (RF DVB-T, HDMI LT)	2 (RF DVB-T, HDMI LT)	2 (RF DVB-T, HDMI LT)
Input				
Video encoding		MPEG-4 AVC / H.264	MPEG-4 AVC / H.264	MPEG-4 AVC / H.264
Video profile		High profile 4.0	High profile 4.0	High profile 4.0
Video resolution		1920x1080@30fps HDMI	1920x1080@30fps HDMI	1920x1080@30fps HDMI
Bitrate Video	Mbps	1-19 (adjustable)	1-19 (adjustable)	1-19 (adjustable)
Audio Specifications		HDMI & Mono/Stereo	HDMI	HDMI
Audio Standard		MPEG-1 Layer II, MPEG-2, AAC, AC3	MPEG-1 Layer II, MPEG-2, AAC, AC3	MPEG-1 Layer II, MPEG-2, AAC, AC3
Bitrate Audio	kbps	64, 96, 128, 192, 256, 320, 384	64, 96, 128, 192, 256, 320, 384	64, 96, 128, 192, 256, 320, 384
Audio level	Vpp	0.5 - 1 (adjustable)	0.5 - 1 (adjustable)	0.5 - 1 (adjustable)
Output				
Transponder No.		1	1	1
Trasmission Standards		DVB-T (EN300744)	DVB-T (EN300744)	DVB-T (EN300744)
Channels		E5-E12, E21-E69	E5-E12, E21-E69	E5-E12, E21-E69
Frequency range	MHz	174-230, 470-862	174-230, 470-862	174-230, 470-862
Freq. step	MHz	1	1	1
Freq. band	MHz	5, 6, 7, 8	5, 6, 7, 8	5, 6, 7, 8
Carriers		2K, 8K	2K, 8K	2K, 8K
Modulation		QPSK, 16QAM, 64QAM	QPSK, 16QAM, 64QAM	QPSK, 16QAM, 64QAM
Guard interval		1/4, 1/8, 1/16, 1/32	1/4, 1/8, 1/16, 1/32	1/4, 1/8, 1/16, 1/32
FEC		1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8
Max out level	dBµV	90	90	90
Level adj.	dB	20	20	20
MER	dB	35@UHF	35@UHF	35@UHF
MIX band	MHz	47-862	47-862	47-862
insertion loss	dB	1	1	1
LCN		Yes (Nordig, ITC/UK, EICTA/Europe, New Zealand)	Yes (Nordig, ITC/UK, EICTA/Europe, New Zealand)	Yes (Nordig, ITC/UK, EICTA/Europe, New Zealand)
other features				
Set up		Keyboard and display; PS SW on USB	Keyboard and display; PS SW on USB	Bluetooth (version 4.0 or higher)
Configurable parameters		Service Name, Service ID, Video PID, Audio PID, PMT PID, TSID, ONID, Network ID, Provider Name	Service Name, Service ID, Video PID, Audio PID, PMT PID, TSID, ONID, Network ID, Provider Name	Service Name, Service ID, Video PID, Audio PID, PMT PID, TSID, ONID, Network ID, Provider Name
Supply voltage	V, mA	12, 400max	12, 400max	12, 400max
Operating temperature		from 0 to 50°	from 0 to 50°	from 0 to 50°
Dimensions		160 x 89 x 28	160 x 89 x 28	160 x 89 x 28

COMPACT HEAD-ENDS
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HIPER ANTENA

Headends

COMPACT HEAD-ENDS



D-MATRIX 4S FTA



D-MATRIX 4S EVO



D-MATRIX 8T

D-MATRIX Series Transmodulation from DVB-S2/T2/C to DVB-T

The new D-Matrix compact headend range introduced a revolutionary concept: a unique mechanics is able to receive many satellite or digital terrestrial contents, in HD or SD standard definition, coming from different and indipendents inputs and remodulate them on "customized" RF output multiplexes. Thanks to the universal slots, the compact headend can decrypt the desired programs by using the proper CAM and professional smart cards.

- **Fully manageable parameters** for all the muxes and individual programs (LCN, SID, PDSD, NIT, ...).
- **"MUX ad Hoc"**: possibility to create your own mux at will by choosing the programs from all the new EVO modules inserted in the same BOX and to manage all the descriptive parameters of the individual programs (LCN, SID, PID, Program name...) and MUX (ONID, TSID, NetID, ...).
- **ARP 2.0**: **Automatic Recovery Procedure** to save the higher priority programs and guarantee Continuity of Service when bit rate overflows occurr. All the program are sequentially restored when the global bit rate returns within the limits.
- **Web based interface**: The headend can be remotely programmed or monitored anytime or anywhere (PC and mobile). When a change is detected in the users configuration an alert e-mail is automatically sent.
- **Multifunction USB port** for uploading/downloading existing configurations, for updating the module firmware: in the new EVO modules it is possible to play video clips saved on an external pendrive (supported file format: TS).

ANTENNA

			D-MATRIX 4S FTA	D-MATRIX 4S EVO	D-MATRIX 8T
Code			283135	283132	283133
Inputs					
	Tuners	No.	4	4	8 (2 TV tuners each connector)
	Demodulation		DVB-S2 (8-PSK, QPSK), DVB-S (QPSK)	DVB-S2 (8-PSK, QPSK), DVB-S (QPSK)	DVB-T2, DVB-T o DVB-C (selectable)
	Bands	MHz	950-2150	950-2150	110-862 (170-862 for the first coax IN)
	Channel width	MHz	-	-	-
	AFC Dynamics	kHz	±5000	±5000	±400 (DVB-T2/T), ±100 (DVB-C)
	Symbol rate	Msymb/sec	2-45	2-45	-
	FEC		1/2, 2/3, 3/4, 5/6, 7/8, AUTO	1/2, 2/3, 3/4, 5/6, 7/8, AUTO	1/2, 2/3, 3/4, 5/6, 7/8 Reed Solomon (204, 188)
	Remote feeding	mA	100 max (14V)	400 max (14V)	200 max (12V)
	LNB controls		DiSEqC 1.0	DiSEqC 1.0	-
	Carrier No.		-	-	2k, 8k
	Level	dBµV	50-80	50-80	55-85
Outputs					
	Generated channels	No.	4 (2 couple of adiacent mux)	4 (2 couple of adiacent mux)	8 (2 adjacent digital multiplex quatrains)
	Standard		DVB-T / DVB-C	DVB-T / DVB-C	DVB-T
	Channel range		S2-E69	S2-E69	S2-E69
	Frequency	MHz	111-862	111-862	111-862
	Freq. step	kHz	250	250	250

			D-MATRIX 4S FTA	D-MATRIX 4S EVO	D-MATRIX 8T
	Level	dBµV	95	95	95
	Level adj.	dB	0-20	0-20	0-20
	Flatness		±1.5	±1.5	±1.5
	MER	dB	≥36	≥36	≥36
	Spurious rejection	dB	<-50	<-50	<-50
	Spectrum		Normal, inverted	Normal, inverted	Normal, inverted
	Operating mode		Normal, single carrier	Normal, single carrier	Normal, single carrier
DVB-T Modulation					
	Modulation		QPSK, 16-QAM, 64-QAM	QPSK, 16-QAM, 64-QAM	QPSK, 16-QAM, 64-QAM
	Channel band	MHz	6, 7, 8	6, 7, 8	6, 7, 8
	Carrier No.		2k, 8k	2k, 8k	2k
	Guard interval		1/4, 1/8, 1/16, 1/32	1/4, 1/8, 1/16, 1/32	1/4, 1/8, 1/16, 1/32
	FEC		1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8
DVB-C modulation					
	Modulation		16QAM, 32QAM, 64QAM, 128QAM, 256QAM	16QAM, 32QAM, 64QAM, 128QAM, 256QAM	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
	Channel band	MHz	Related to the output symbol rate	Related to the output symbol rate	Related to the output symbol rate
	FEC		Reed Solomon (204, 188)	Reed Solomon (204, 188)	Reed Solomon (204, 188)
	Symbol rate	Msymb/sec	1000-6999	1000-6999	1000-6999
Main features					
	USB		Software update and video playing (type A, FAT32 filesystem, fileformat .TS)	Software update and video playing (type A, FAT32 filesystem, fileformat .TS)	Software update and video playing (type A, FAT32 filesystem, fileformat .TS)
	Programming mode		Web interface	Web interface,keyboard and display	Web interface,keyboard and display
	Supply voltage	V, Hz	184-264, 50-60	184-264, 50-60	184-264, 50-60
	Consumption	W	35	42 (with 2 CAM)	42 (with 2 CAM)
	Common interface		-	2 x PCMCIA (Standard EN50221, TS10169) Flex CAM o Standard Mode	2 x PCMCIA (Standard EN50221, TS10169) Flex CAM o Standard Mode
	Dimensions	mm	302 x 230 x 54	360 x 230 x 54 (without CAM) 385 x 230 x 54 (with CAM)	360 x 230 x 54 (without CAM) 385 x 230 x 54 (with CAM)
	Conformity		EN50083-2, EN60065	EN50083-2, EN60065	EN50083-2, EN60065
	operating temperature	C°	-5 ÷ +55	-5 ÷ +55 (without CAM)	-5 ÷ +55 (without CAM)

HIPEL

MODULAR HEAD-ENDS

3DGFLEX Series Transmodulation from DVB-S2/T2/C to DVB-T

The 3DGFLEX is a modular headend designed to process a range of digital signals ready to be distributed over a centralised system, such as large apartment buildings or hospitality environments, by using a combination of different quad modules it's possible to perform a remultiplexing of different contents (satellite or DTT programs, ASI sources) and distribute them on the centralized coaxial network.

- **"Smart & Pool"** functionality that uses the high-speed bidirectional Back-Panel to exchange contents with quad modules inserted in the same head-end (feature available only for the new EVO modules).
- **"MUX ad Hoc"**: possibility to create your own mux at will by choosing the programs from all the new EVO modules inserted in the same BOX and to manage all the descriptive parameters of the individual programs (LCN, SID, PID, Program name...) and MUX (ONID, TSID, NetID, ...).
- **Multifunction USB port** for uploading/downloading existing configurations, for updating the module firmware: in the new EVO modules it is possible to play video clips saved on an external pendrive (supported file format: TS).
- **Auto Remapping** Function: You can change a program in real time within the mux without the need to retune all the TV sets in the system.
- **Web based interface**: The headend can be remotely programmed or monitored anytime or anywhere (PC and mobile). When a change is detected in the users configuration an alert e-mail is automatically sent.
- **ARP 2.0**: **Automatic Recovery Procedure** to save the higher priority programs and guarantee Continuity of Service when bit rate overflows occurr. All the program are sequentially restored when the global bit rate returns within the limits.
- **FPGA technology**: enables a flexible and efficient way of upgrading the system, using the latest state-of-the art technology.
- **Remote management included** to monitor and edit the set-up of the headened remotely.



ANTENNA

			3DG-4S2-4T	3DG-4S2-BP
Code			283162	283163
Inputs				
	Tuners	No.	4	4
	Demodulation		DVB-S2 (8-PSK, QPSK), DVB-S (QPSK)	DVB-S2 (8-PSK, QPSK), DVB-S (QPSK)
	Bands	MHz	950-2150	950-2150
	AFC Dynamics	kHz	±5	±5
	Symbol rate	Msymb/ sec	2-45	2-45
	FEC		1/2, 2/3, 3/4, 5/6, 7/8, AUTO	1/2, 2/3, 3/4, 5/6, 7/8, AUTO
	Remote feeding	mA	4x125 max (14/18V)	4x125 max (14/18V)
	LNB controls		DiSEqC 1.0	DiSEqC 1.0
	Level	dBµV	50-80	50-80
Back panel				
	Connectors		Back Panel 48 pin	Back Panel 48 pin
	Type		Serial	Serial
	Max Bitrate	Mbit/sec	1000 bidirectional	1000 bidirectional
Outputs				
	Generated channels	No.	4 (2 couple of adiacent mux)	-
	Standard		DVB-T / DVB-C	-
	Channel range		S2-E69	-
	Frequency	MHz	111-862	-
	Freq. step	kHz	250	-

			3DG-4S2-4T	3DG-4S2-BP
	Level	dBµV	95	-
	Level adj.	dB	0-20	-
	Flatness		±1.5	-
	MER	dB	≥36	-
	Spurious rejection	dB	<-50	-
	Spectrum		Normal, inverted	-
	Operating mode		Normal, single carrier	-
DVB-T Modulation				
	Modulation		QPSK, 16-QAM, 64-QAM	-
	Channel band	MHz	6, 7, 8	-
	Carrier No.		2k, 8k	-
	Guard interval		1/4, 1/8, 1/16, 1/32	-
	FEC		1/2, 2/3, 3/4, 5/6, 7/8	-
DVB-C modulation				
	Modulation		16QAM, 32QAM, 64QAM, 128QAM, 256QAM	-
	Channel band	MHz	Related to the output symbol rate	-
	FEC		Reed Solomon (204, 188)	-
	Symbol rate	Msymb/ sec	1000-6999	-
Main features				
	USB		Software update and video playing (type A, FAT32 filesystem, fileformat .TS)	Software update and video playing (type A, FAT32 filesystem, fileformat .TS)
	Programming mode		Web interface,keyboard and display	Web interface,keyboard and display
	Consumption	W	15 (without CAM), 20 (with CAM), extraconsumption DVB-C 1.3	7 (without CAM), 12 (with CAM)
	operating temperature	C°	-10 ÷ 50; -10 ÷ 45 (with CAM)	-10 ÷ 50; -10 ÷ 45 (with CAM)

3DGFLEX HEADEND



HIP

MODULAR HEAD-ENDS

3DGFLEX Series Transmodulation from DVB-S2/T2/C to DVB-T





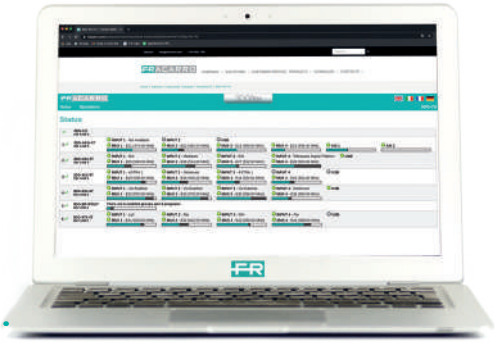
			3DG-4T2-4T	3DG-4T2-BP
Code			283165	283166
Inputs				
	Tuners	No.	4	4
	Demodulation		DVB-T2, DVB-T o DVB-C (selectable)	DVB-T2, DVB-T o DVB-C (selectable)
	Bands	MHz	174-862	174-862
	Channels		E5-E69	E5-E69
	Channel width	MHz	6,7,8	6,7,8
	AFC Dynamics	kHz	±400 (DVB-T2/T), ±100 (DVB-C)	±400 (DVB-T2/T), ±100 (DVB-C)
	Symbol rate	Msymb/ sec	-	-
	FEC		1/2, 2/3, 3/4, 5/6, 7/8 Reed Solomon (204, 188)	1/2, 2/3, 3/4, 5/6, 7/8 Reed Solomon (204, 188)
	Remote feeding	mA	2 x 100 max (12V)	2 x 100 max (12V)
	LNB controls		-	-
	Carrier No.		2000, 8000	2000, 8000
	Level	dBµV	40-85	40-85
	Mas Bitrare ASI		-	-
Back panel				
	Connectors		Back Panel 48 pin	Back Panel 48 pin
	Type		Serial	Serial
	Max Bitrate	Mbit/sec	1000 (bidirectional)	1000 (bidirectional)
Outputs				
	Generated channels	No.	4 (2 couple of adiacent mux)	-
	Standard		DVB-T / DVB-C	-
	Channel range		S2-E69	-
	Frequency	MHz	111-862	-
	Freq. step	kHz	250	-
	Level	dBµV	95	-
	Level adj.	dB	0-20	-
	Flatness		±1.5	-
	MER	dB	≥36	-
	Spurious rejection	dB	<-50	-
	Spectrum		Normal, inverted	-
	Operating mode		Normal, single carrier	-
DVB-T Modulation				
	Modulation		QPSK, 16-QAM, 64-QAM	-
	Channel band	MHz	6, 7, 8	-
	Carrier No.		2k, 8k	-
	Guard interval		1/4, 1/8, 1/16, 1/32	-

			3DG-4T2-4T	3DG-4T2-BP
	FEC		1/2, 2/3, 3/4, 5/6, 7/8	-
DVB-C modulation				
	Modulation		16QAM, 32QAM, 64QAM, 128QAM, 256QAM	-
	Channel band	MHz	Related to the output symbol rate	-
	FEC		Reed Solomon (204, 188)	-
	Symbol rate	Msymb/ sec	1000-6999	-
Main features				
	USB		Software update and video playing (type A, FAT32 filesystem, fileformat .TS)	
	Programming mode		Web interface,keyboard and display	Web interface,keyboard and display
	Consumption	W	5 (without CAM); 20 (with 2 CAMs)	7 (without CAM), 12 (with CAM)
	Common interface		2 x PCMCIA (Standard EN50221, TS10169) Flex CAM o Standard Mode	
	Dimensions	mm	245x208x54	245x208x54
	Conformity		EN50083-2, EN60065	EN50083-2, EN60065
	operating temperature	C°	-10 ÷ 50; -10 ÷ 45 (with CAM)	-10 ÷ 50; -10 ÷ 45 (with CAM)

3DGFLEX web interface settings







HIPEL

MODULAR HEAD-ENDS



3DG-4ASI-4T

3DGFLEX ASI Series Transmodulation from ASI to DVB-T

The ASI module belongs to the 3DGFLEX products family, and is able to simultaneously manage the programs available on different distinct ASI sources.

The module is able to manage ASI flows, coming from digital encoders or from external ASI sources typically available in the control rooms of broadcasters and to flexibly choose the programs that will make up the independent output multiplexes of which the module is equipped allowing the installer to decide which and how many contents to distribute through the coaxial system.

- Ideal in combination with encoders for external sources SIG7404H or SIG7804H264.
- **"MUX ad Hoc"**: possibility to create your own mux at will by choosing the programs from all the new EVO modules inserted in the same BOX and to manage all the descriptive parameters of the individual programs (LCN, SID, PID, Program name...) and MUX (ONID, TSID, NetID, ...).
- **Multifunction USB port** for uploading/downloading existing configurations, for updating the module firmware: in the new EVO modules it is possible to play video clips saved on an external pendrive (supported file format: TS).

		3DG-4ASI-4T
Code		283167
Max ASI bitrate	Mbit/s	214
Back panel		
Connectors		Back Panel 48 pin
Type		Parallel
Max Bitrate	Mbit/s	1000 bidirectional
Outputs		
Generated channels	No.	4 (2 couple of adiacent mux)
Standard		DVB-T / DVB-C
Channel range		S2-E69
Frequency	MHz	111-862
Freq. step	kHz	250
Level	dBµV	95
Level adj.	dB	0-20
Flatness		±1.5
MER	dB	≥36
Spurious rejection	dB	<-50
Spectrum		Normal, inverted
Operating mode		Normal, single carrier
DVB-T Modulation		
Modulation		QPSK, 16-QAM, 64-QAM
Channel band	MHz	6, 7, 8
Carrier No.		2k, 8k
Guard interval		1/4, 1/8, 1/16, 1/32
FEC		1/2, 2/3, 3/4, 5/6, 7/8
DVB-C modulation		
Modulation		16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Channel band	MHz	Related to the output symbol rate
FEC		Reed Solomon (204, 188)
Symbol rate	Msymb/sec	1000-6999
Main features		
USB		Software update and video playing (type A, FAT32 filesystem, fileformat .TS)
Programming mode		Web interface,keyboard and display
Consumption	W	max 17
Dimensions	mm	245x208x54
Conformity		EN50083-2, EN60065
operating temperature	C°	-10 ÷ 50

MODULAR HEAD-ENDS



3DG-BP-IP OUT

3DGFLEX IP Encoder IPTV Series

3DG-EVO IPTV multicast/unicast encoder, developed on 3DGFLEX platform to distribute IPTV signals on medium and big hospitality installations.

The item can be combined with 3DGFLEX EVO new generation receivers i.e. 3DG-4S2-BP (QUAD satellite receiver) or 3DG-4T2-BP (digital terrestrial receiver). Sharing all the information through the bidirectional high speed back-panel the solution allow a mixed Terrestrial/Sat IP distribution..

- **"Smart & Pool"** functionality that uses the high-speed bidirectionalBack-Panel to exchange contents with quad modules inserted in the same head-end (feature available only for the new EVO modules).
- Up to 64 multicast IPTV (UDP, RTP/UDP) programs on each module.
- Up to 1Gbit/s on each module to distribute UHD, HD, SD and radio channels on an IP network.
- Built-in service discovery SAP and M3U functions.
- Single Program Transport Stream (SPTS) or Multi Program (MPTS) management.
- DRM (Digital Right Management) ready.

		3DG-BP-IP OUT
Code		283164
Back panel		
Connectors		Back Panel 48 pin
Type		Serial
Max Bitrate	Mbit/sec	1000 (bidirectional)
IP Output		
Connector		IEE 802.3ab 1Gbps ethernet (10/100/1000)
Standard		DVB-IPTV (ETSI TS102034 v1.5.1)
Encapsulation		UDP, RTP/UDP
Protocols		SAP, IGMP, M3U, DHCP
Multicast groups		64 (unicast or multicast)
Main features		
USB		SW upgrade
Programming mode		Web interface,keyboard and display
Supply voltage	Vdc	14
Consumption	W	5
Dimensions	mm	245x208x54
Conformity		EN50083-2, EN60065
operating temperature	C°	-10 ÷ 50

Programming web interface



MODULAR HEAD-ENDS



3DG-PS-BU

3DG-BOX Series Modular Backup Power Supply

The new module **3DG-PS-BU** is an auxiliary power supply module which is essential to guarantee the operation of the 3DGFlex EVO control unit in the event of faults in the main power supply. Ideal in combination with the SIG7404H or SIG7804H264 encoders for external sources. The new module, inserted inside the 3DG-BOX, works in synergy with the main power supply present in the Control Unit.

- **Continuity of service**: the redundant power supply 3DG-PS-BU allows continuous operation in the event of breakage of the main power supply, supporting the load of all the modules inserted in the head-end.
- **Insulation class**: Class II
- **High power**: the 3DG-PS-BU is able to support the load of all the modules inserted in the control unit.
- **Monitoring**: by means of the monitoring function, which can be enabled during the programming of the head-end, it is possible to receive alerts in the event of any power supply anomalies.

		3DG-PS-BU
Code		283168
Main features		
Supply voltage	Vac,Hz	220-230, 50-60
Maximum consumption	W	135 (max)
Connectors		48 pins on back-panel
Dimensions	mm	245x208x54
operating temperature	C°	-5 ÷ +45
Conformity		EN50083-2, EN60065

MODULAR HEAD-ENDS



3DG-BOX

3DG-BOX Control unit and box for 3DG Series

The 3DG-BOX chassis is equipped with **6 slots available** to install, power and program the transmodulators of the 3DGFlex family. The box is equipped with all the accessories for **wall , floor or standard 19" rack mounting.**

- Integrated host controller: to power, program and monitor the head-end at anytime from any PC.
- Programming from WEB interface included in each module and basic programming from keyboard and on-board display.
- Remote management included for monitoring or configuring all parameters.
- USB Port for uploading/downloading existing configurations and for updating the module firmware.
- Blank panels available to close empty slots (**3DG-FRONTPANEL** code 283158).

		3DG-BOX
Code		283156
Max modules No.		6
RF mix input	MHz	47-862
insertion loss	dB	2.5
Main features		
Supply voltage	Vac,Hz	184-264, 50/60
Consumption	W	105 (no CAM)
Connectors		F female (RF), RJ45 (Web interface), USB (fw upgrade)
Dimensions	mm	415x260x265
Operating temperature	C°	-10 ÷ +50
Conformity		EN50083-2, EN60065

PROFESSIONAL ENCODERS

Analog/HDMI to ASI professional encoder Series

4 external sources encoding. It allows to make available 4 A / V signals in TS MPG2 format (SIG7404H) or 4 HDMI signals (SIG7804H264) in MPG4 / H264 format on the ASI output. Can be installed with the 3DG-4ASI-4T module (module with ASI inputs for 3DGFlex) to create one or more COFDM output multiplexes.

Can be connected to an IP encoder carry out multicast streams.



SIG7404H

SIG7404H

- Performs encoding and multiplexing of 4 analog AV signals
- MPEG 2 coding

SIG7804H264

- To encode up to 4 external HDMI sources
- MPG4 / H264 compression
- Best solutions to convert external analog or digital sources (HDMI to COFDM or IP).

			SIG7404H	SIG7804H264
Code			287348	287430
Input	No.		4 x CVBS	4 x HDMI (type A receptacle)
	Video connector		RCA	Compliant with HDMI 1.3a
	Video impedance	Ohm	75	-
	Audio connector		RCA (left, right audio channels)	HDMI
	Audio impedance	kohm	10	-
ASI output	Outputs no.		1 x BNC	1 x BNC
	Impedance	Ohm	75	75
	Standard		DVB-ASI	DVB-ASI
	Max output bitrate	Mbps	108	216
	Coding			
	Video resolution		576i/480i	1080p 60Hz
	Video compression		MPEG-2 Video(ISO/IEC 13818-2) MPEG-2 MP@ML	H264/AVC
	Audio compression		MPEG-1 Audio Layer II (ISO/IEC 11172-3)	MPEG-1 Audio Layer II (ISO/IEC 11172-3)
	Audio coding ratio		128, 256, 384	128, 256, 384
	Advanced set-up			
	PID settings		PMT/Video/Audio/PCR	PMT/Video/Audio/PCR
	Network set up TS		NID/ONID/P.D.S./TS ID	NID/ONID/P.D.S./TS ID
	LCN set up		1023	1023
Main features				
Supply voltage		Vac,Hz	110-240, 50-60	110-240, 50-60
Consumption		W	25	40
Connectors			BNC (ASI Out), RCA (A/V), RJ45 (built-in WEB interface set-up)	BNC (ASI Out), HDMI1.3a, RJ45 (built-in WEB interface set-up)
Conformity			EN50083-2, EN60065	EN50083-2, EN60065
Operating temperature		C°	0 ÷ +45	0 ÷ +45
Mounting			19" rack	19" rack
Dimensions		mm	440 x 44 x 280	440 x 44 x 280

ANNA

K SERIES



K120/FM

K120L Single channel amplifier Series

Channel amplifiers with five resonant circuits.
Excellent selectivity allows the distribution of adjacent channels.
High stability temperature and good discharge resistance

- Operating temperature: from –10° to +55°C.
- For the K120L/xx versions, the channel must be specified when ordering.

		K120/FM	K120L/.B3	K120L/XX
Code		270271	270885	2708xx
Frequency	MHz	87.5-108	174-240	470-790
Freq. band	MHz	-	7	8
Channels		FM	E5-E12	E21-E60
Gain	dB	40	45	45
Gain adj.	dB	20	20	20
Selettività (Pa n -2)	dB	40	40	42
Selectivity (Ca n -1)	dB	5	5	10
Selectivity (Cv n +1)	dB	10	10	16
Selectivity (Cv n +2)	dB	44	44	46
Input Return Loss	dB	10	10	10
Output Return Loss	dB	10	10	10
Mix in loss	dB	0.5	0.5	0.2
Mix out loss	dB	0.5	0.5	0.2
Noise figure	dB	5	9	9
Max output level	dBµV	112	120	115
Main features				
Supply voltage	V	12	12	12
Consumption	mA	200	180	200
operating temperature	C°	-10 ÷ +55	-10 ÷ +55	-10 ÷ +55
Dimensions	mm	32×129×86	32×129×86	32×129×86

HIPEL

K SERIES



KMTW

KM Series VSB Analog Modulators

Vestigial A / V modulators (or SingleSideBand with 2 adjacent channels in the case of KMTW) suitable for distributing adjacent channels, with full-band output from 47 to 862 MHz, S band included.

Available in different versions.

- High C/N at output
- Audio and video input level adj.
- Programmable via TPE (FRACARRO universal programmer)

			KMTW
Code			270633
Input No.		No.	2
Video Input			
Impedance		Ohm	75
Level adj.		Vpp	1 (0.7-1.2)
Audio Input			
Impedance		Ohm	10
Level adj.		Vpp	0.5 (0.5-2.5)
Standard			PAL B/G mono
Audio/video carrier ratio	B/G mono	dB	14
Modulation 1kHz, 0.5Vrms on audio input	B/G	kHz	49
Modulation width with 1Vpp on video input	D/K, I, B/G	%	80%
RF output signal		MHz	47-862
Channels			S2-E69
Output step tuning		kHz	250
Trasmission Standards			B/G Europe, L France, B Australia
Created Channels			2
Max output level		dBµV	90
Level adj.		dB	0-15
insertion loss		dB	<1.5
Return loss		dB	-
Spurious rejection		dB	<-57
Main features			
Supply voltage		Vdc	12
Programming mode			TPE (not included)
Consumption		W	400
Connectors			2 F connectors (output + input mix)
Conformity			EN50083-2
operating temperature		C°	-10 ÷ +55
Dimensions		mm	120 x 97 x 43

Headends

K SERIES



KW33B

KW wide band amplifier Series

Broadband launch amplifier with pushpull technology allows the amplification of the whole 47-862MHz band, including the S band. With one input and one output, the KW series are used to amplify the signal from KF filters or other modules.

The KW35E allows the passage of the passive return channel (5-30MHz).

- 75 ohm impedance
- Return loss 10dB

		KW35D
Code		270061
Frequency	MHz	47-862
Gain	dB	35
Gain adj.	dB	20
Slope	dB	0-20
Max power	dBµV	125
Noise figure	dB	5
Return loss	dB	10
Main features		
Impedance	Ohm	75
Supply voltage	Vac,Hz	-
Consumption	mA	640
operating temperature	C°	-10 ÷ +55
Dimensions	mm	63 x 184 x 107

K SERIES



KP15

KP Series Switching power supply

The power supply units contain switching technology to ensure the best performance and reliability.
Operating temperature: -10°C to +55°C.

		KP15	KP35	KP62
Code		270018	270017	270019
Frequency	MHz	-	-	-
Supply voltage	V	220-230, 50-60	220-230, 50-60	220-240, 50-60
Consumption	W	23	55	88
Max current	mA	1500	3500	6200
Output voltage	Vdc	12 ± 5%	12 ± 5%	12 ± 5%
Insulation		Class II	Class II	Class II
operating temperature	C°	-10 ÷ +55	-10 ÷ +55	-10 ÷ +55
Dimensions	mm	130 x 40 x 86	165 x 63 x 107	165 x 63 x 107

K SERIES



TPE
code 282733

Programming unit Series

TPE is a programming unit with numeric keypad and graphic display that enables the programming of all new modules of the K series and of the Headline series.

- Languages that can be started from the menu: Italian, English, German, French, Spanish and Portuguese.
- Maximum number of addressable devices: 253
- Copy function available, to copy settings from one device to another.
- Adjustable contrast (31 steps).

RACK



RACK42U

RACK Series

Range consisting of 2 floor cabinets and a wall cabinet, with relative accessories, to be used to install SMATV Headends, such as the K series and the Headline. The products are managed on order, they are available after 20 days from the customer's order. All products are individually packaged. In 19" racks the height is measured in "U", a "U" corresponds to 44.45mm. The width is measured in "e", an "e" corresponds to 5.08mm, a cabinet can hold 84e, therefore 42.6cm (usable space, the complete support is 19 inches wide i.e., 48.26cm). Remember that one inch corresponds to 2.54cm.



6U SLIDE PANEL

ANTELMA

Item	Code	Description	Pcs per pack
RACK42U	289722	19" wall mounted cabinet. Tempered glazed door that can be rotated 180°.The 19" uprights are adjustable according to the depth of the equipment to be installed.Two holess for power cables at floor level or at the top where a ventilation kit can be fitted.	1
RACK27U	289721	19" wall mounted cabinet. Tempered glazed door that can be rotated 180°.The 19" uprights are adjustable according to the depth of the equipment to be installed.Two holes for power cables at floor level or at the top where a ventilation kit can be fitted.	1
RACK6U	289720	19" rack wall cabinet. Main door in heat-resistant glass, rotatable up to 180 °. The uprights can be moved. Equipped with ventilation holes on the bottom and on the upper end with the possibility of installing cooling fans.	1
4U SLIDE PANEL	287563	Pull-out panel system for mounting of equipment on 19 "Rack. 4U SLIDE PANEL (small) 4U equipped with 7 removable slide panels, ideal for rack mounting of optical transmitters and receivers (OPT-MBJ), multiswitches or IF-IF control panels of the SCD2-32IF series, etc.	1
6U SLIDE PANEL	287564	Pull-out panel system for mounting of equipment on 19 "Rack. 6U SLIDE PANEL (large) 6U equipped with 5 removable slide panels, ideal for rack mounting of Home Fibre Series optical transmitters (eg OPT-TX)	1

RACK ACCESSORIES



RACK01



RACK06



RACK08

Articolo	Codice	Descrizione
RACK01	289708	Nuts and screws kit
RACK06	289713	Shelf with depth 250mm
RACK08	289715	2U back panel
RACK09	289716	4U back panel

Optical fibre

HOME FIBRE

OPT-TX Series 67
OPT-RX Series 68
OPT-RX SCD2 Series 69

OPT MBJ

OPT MBJ Series 70

GPON

OPTICAL LINE TERMINAL Series 72
OPTICAL NETWORK TERMINAL Series 74
SPF Series 76
EDFA Optical Amplifiers Series 77

SPLITTER

WDM Series 78
VOV Series 78
PLC Optical Splitters Series 79

FIBRE OPTIC

OPTICAL Fibre Cable Series 80
Accessories for Fiber Cables Series 81

FIBRE BOXES

BOXES Series 81
INDOOR BOXES Series 82
PRETERMINATED CABLES Series 82
ACCESSORIES MINI Series 82

HIPER ANTENA

HOME FIBRE



OPT-TX DT

OPT-TX Series

The fibre optic system has been designed to distribute easily contents as Analog FM radio and DAB, DVB/T signals ,DVB/S-S2 from the headends to the optical receivers. The system works with standard LNB and many different dishes size thanks to the built in AGC, distributing the signals on a 9/125 optical fibre. Additional transmitters can be connected in a cascadable mode to enlarge the system with a traditional 5 coax trunk line.

- AGC on trasmitters allow the use of different dish dimensions
- Standard HVHV LNB
- Cascadable solution
- 21 dB optical budget
- Quick and easy installation
- Full terrestrial path
- Built in power supply

OPT-TX 15XX



		OPT-TX DT	OPT-TX 1510	OPT-TX 1530	OPT-TX 1550	OPT-TX 1570
Code		270694	270667	270668	270669	270670
RF inputs		5 (4 SAT + 1 TV)	5 (4 SAT + 1 TV)	5 (4 SAT + 1 TV)	5 (4 SAT + 1 TV)	5 (4 SAT + 1 TV)
RF outputs				7 (4 SAT + 1 TV + 2 TEST)		
Optical output		1 SC/APC	1 SC/APC	1 SC/APC	1 SC/APC	1 SC/APC
SAT Inputs						
Frequency band	MHz	950-2150	950-2150	950-2150	950-2150	950-2150
Connectors type		F female	F female	F female	F female	F female
Return loss	dB	10	10	10	10	10
Trunk line loss	dB	<2	<2	<2	<2	<2
Input Level	dBµV	69-86	69-86	69-86	69-86	69-86
TV Input						
Frequency band	MHz	87-862	87-862	87-862	87-862	87-862
Connectors type		F female	F female	F female	F female	F female
Return loss	dB	10	10	10	10	10
Trunk line loss	dB	1	1	1	1	1
Input Level	dBµV	80 @10 ch	80 @10 ch	80 @10 ch	80 @10 ch	80 @10 ch
Output test						
Frequency band	MHz	87-862 / 950-2150	87-862 / 950-2150	87-862 / 950-2150	87-862 / 950-2150	87-862 / 950-2150
Connectors type		F female	F female	F female	F female	F female
Return loss	dB	10	10	10	10	10
Test attenuation	dBµV	59 per channel	59 per channel	59 per channel	59 per channel	59 per channel
Optical output						
Connectors type		SC/APC	SC/APC	SC/APC	SC/APC	SC/APC
Wavelength		1310	1510	1530	1550	1570
Optical power	dB	7.5	6.5	6.5	6.5	6.5
Optical return loss	dBµV	>45	>45	>45	>45	>45
Safety level		1M	1M	1M	1M	1M
General features						
Supply voltage	Vac, Hz	184-264, 50-60	184-264, 50-60	184-264, 50-60	184-264, 50-60	184-264, 50-60
Consumption	W	15	15	15	15	15
Remote feeding	mA, V			200, 14 (4 SAT connectors)		
Operating temperature	°C	-5 - +55	-5 - +55	-5 - +55	-5 - +55	-5 - +55
AGC dynamics	dB	20	20	20	20	20
LEDs	dBµV			Red laser overcurrent		
Standards				CEI EN 50083-2 EN60065		
Dimensions	mm			230x230x50		

Fibre Optic

HOME FIBRE

OPT-RX series

Home fibre optical receiver with Quattro (HVHV+TV) or Quad, outputs

- 21 dB optical budget
- Quick and easy installation
- Full terrestrial path



OPT RX 4 MICRO



OPT RX QD MICRO

		OPT RX 4 MICRO	OPT RX QD MICRO
Code		270662	270661
Optical input		1 SC/APC	1 SC/APC
RF outputs		4 SAT (VL,HL,VH,HH)+ 1 TV	4 (TV + SAT)
Optical input			
Connector		SC/APC	SC/APC
Wavelength	nm	1290-1580	1290-1600
Optical return loss	dB	>45	>45
Max. Input optical power	dB	-8	-8
RF outputs			
Frequency band	MHz	88-862/950-2150	88-862/950-2150
Connectors type	Type	F female	F female
Return loss	dB	-10	-10
TV output level			
-8dBmo(40Mux)	dBµV	78	72
-8dBmo(16Mux)	dBµV	82	76
-8dBmo(8Mux)	dBµV	85	79
-14dBmo(40Mux)	dBµV	66	60
-14dBmo(16Mux)	dBµV	70	64
-14dBmo(8Mux)	dBµV	73	67
SAT output level			
-8dBmo	dBµV	80	74
-14dBmo	dBµV	68	62
General features			
Supply voltage	Vdc	12-18	12-18
Consumption	W	2.5	3.5
Current consumption	mA, V	130, 12 180, 18	280, 12 190, 18
Voltage	V	14/18 on all outputs	14/18 on all outputs
Operating temperature	°C	-5 - +50	-5 - +50
LEDs	dBµV	Power status green LED	Power status green LED
Standards		CEI EN 50083-2 EN60065	CEI EN 50083-2 EN60065
Dimensions	mm	120x100x36	120x100x36



PSU1506

PSU1506

15V 0.6A power supply on F connector

- Using **PC8338** the plug can be converted into UK version.
- Class II insulation
- Compact dimensions

HIDEN

HOME FIBRE

OPT-RX SCD2 Series

Series of optical receivers of the "Home Fibre" family complete for the DCSS solution. The receiver converts the incoming fibre optic signal into an RF output signal using 16 DCSS frequencies on 2 separate outputs.

- 21 dB optical budget
- Quick and easy installation
- Full terrestrial path



OPT RX SCD2 MICRO

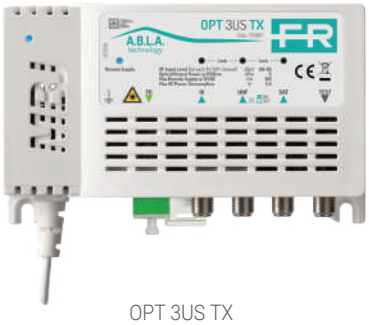


OPT RX dSCR UK

		OPT RX SCD MICRO	OPT RX dSCR UK
Code		270660	270658
Optical input		1 SC/APC	1 SC/APC
RF outputs		2 to serve up to 32 SCD2 (dCSS) + 2 Legacy users	
Optical input			
Connector		SC/APC	SC/APC
Wavelength	nm	1290-1600	1290-1600
Optical return loss	dB	>45	>45
Max. Input optical power	dB	-8	-8
RF outputs			
Frequency band	MHz	88-862/950-2150	88-862/950-2150
User band	MHz	1210, 1420, 1680, 2040 (complies with the EN50494 standard) 985, 1050, 1115, 1275, 1340, 1485, 1550, 1615, 1745, 1810, 1875, 1840 (complies with the EN50607 standard)	980, 1030, 1080, 1130 MHz 1280, 1380, 1480, 1530 MHz 1580, 1630, 1680, 1730 MHz 1780, 1830, 1880, 1930 MHz (responding to SKY UK commands)
Connectors type	Type	F female	F female
Return loss	dB	-10	-10
TV output level:			
-8dBmo(40Mux)	dBµV	87	87
-8dBmo(16Mux)	dBµV	91	91
-8dBmo(8Mux)	dBµV	94	94
-14dBmo(40Mux)	dBµV	75	75
-14dBmo(16Mux)	dBµV	79	79
-14dBmo(8Mux)	dBµV	82	82
SAT output level			
-8dBmo	dBµV	82	82
-14dBmo	dBµV	82	82
General features			
Supply voltage	Vdc	12-18	12-18
Consumption	W	9	9
Current consumption	mA, V	500, 18 750, 12	500, 18 750, 12
Voltage	V	14/18 on all outputs	14/18 on all outputs
Operating temperature	°C	-5 - +50	-5 - +50
LEDs	dBµV	Power status green LED	Power status green LED
Standards		CEI EN 50083-2	CEI EN 50083-2
Dimensions	mm	160 x 100 x 36	160 x 100 x 36

Fibre Optic

OPT MBJ



OPT 3US TX

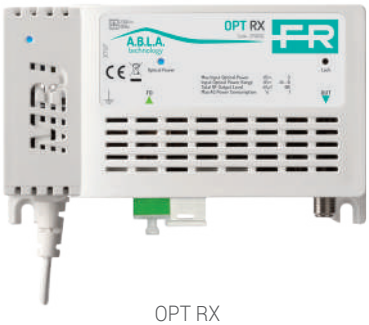
OPT-MBJ Series

The new optical transmitters and receivers **"Plug & Play"** OPT-MBJ Series are able to mix the 3, UHF and SAT (IF-IF) bands and distribute them through **the multiservice fibre optic infrastructure** in the medium-sized facilities.

- **Plug & Play": no adjustment**
- **A.B.L.A technology**: in the transmitters the optical signal is kept constant at the output if the TV and SAT RF input levels are between 60dBµV and 85dBµV
- The OPT-RX receiver is equipped with **Automatic Gain Control** which keeps the RF output constant if the received optical signal is within its working range
- Plastic frame in flame-resistant ABS material (Class V0)
- **Low power consumption**
- A.B.L.A circuits operating LED for an immediate diagnosis of the RF input levels in the TX's
- **Diagnostic LEDs of the correct optical signal** and of the presence of the **RF level in the OPT-RX receiver**
- Wall or DIN rail mounting.

		OPT 3US TX	OPT T+S TX PLUS
Code		270657	270656
RF inputs		3 (3, UHF, IF-IF)	1 (TV+SAT)
RF outputs		1 (TEST)	1 (TEST)
Optical output		1 SC/APC	1 SC/APC
SAT Inputs			
Frequency band	MHz	950-2150	950-2350
Connectors type		F female	F female
Return loss	dB	8	8
Input Level	dBµV	60-85 @TP	60-85 @TP
TV Input			
Frequency band	MHz	174-230, 470-790	88-862
Connectors type		F female	F female
Input Level	dBµV	60-85 @MUX	60-85 @MUX
Output test			
Frequency band	MHz	174-230 / 470-790 / 950-2150	88-2350
Connectors type		F female	F female
Optical output			
Connectors type		SC/APC	SC/APC
Wavelength		1550	1550
Optical power	dB	5	9
Optical return loss	dBµV	>30	>30
General features			
Supply voltage	Vac, Hz	230, 50-60	230, 50-60
Consumption	W	5.5	4.5
Remote feeding	mA, V	100, 12 (on UHF input)	100, 12 (on the TV + SAT input)
Operating temperature	°C	-10 - +55	-10 - +55
CAG dynamics	dB	25	25
LEDs	dBµV	Blue light on / Signal in the A.B.L.A. range correct, remote feeding active	Blue light on / Signal in the A.B.L.A. range correct, remote feeding active
Standards		CEI EN 50083-2 EN60065	CEI EN 50083-2 EN60065
Dimensions	mm	135x82x39	135x82x39

OPT MBJ



OPT RX

OPT-MBJ Series

The new optical transmitters and receivers **"Plug & Play"** OPT-MBJ Series are able to mix the 3, UHF and SAT (IF-IF) bands and distribute them through **the multiservice fibre optic infrastructure** in the medium-sized facilities.

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- The OPT-RX receiver is equipped with **Automatic Gain Control** which keeps the RF output constant if the received optical signal is within its working range
- Plastic frame in flame-resistant ABS material (Class V0)
- **Low power consumption**
- A.B.L.A circuits operating LED for an immediate diagnosis of the RF input levels in the TX's
- **Diagnostic LEDs of the correct optical signal** and of the presence of the **RF level in the OPT-RX receiver**
- Wall or DIN rail mounting.

		OPT RX
Code		270655
Optical input		1 SC/APC
RF outputs		1 (TV + SAT)
Optical input		
Connector		SC/APC
Wavelength	nm	1270-1610
Max. Input optical power	dB	0
RF outputs		
Frequency band	MHz	88-2350
Connectors type	Type	F female
Return loss	dB	-7
TV output level		
Total output level	dBµV	98 (total)
Digital Terrestrial output level	dBµV	82 (@Mux)
Satellite output level	dBµV	74 (@TP)
General features		
Supply voltage	Vac/Hz	230, 50-60
Consumption	W	1.5
Operating temperature	°C	-10 - +55
LEDs	dBµV	Blue light on / Optical level in correct range, RF signal lock
Standards		CEI EN 50083-2 EN60065
Dimensions	mm	135x82x39

Fibre Optic

GPON

OPTICAL LINE TERMINAL Series

The **DATA GPON TX range** has many models of Optical Line Termination (OLT), i.e. the termination equipment, on the network side that allows the interface with the fibres in the FTTH - FTTx fibre optic distribution and provides connectivity to one or more terminations user (subscriber) calls ONT. OLTs access nodes, are suitable to distribute **high speed data (up to 2.5Gbits in download and up to 1.5Gbits in upload)** via fibre optic distributions. Up to 128 user terminals (ONT) for each PON port.

- GPON technology
- Standard 19" 1U Rack Dimensions
- Flexible Solution: 4xPON or 8xPON
- Each PON port can support up to 64 ONT's (SFP in Class B+) or 128 ONT's (SFP in Class C++)
- Compatibility with the different wavelengths used by the HOME Fibre and OPT-MBJ systems
- Advanced traffic management.



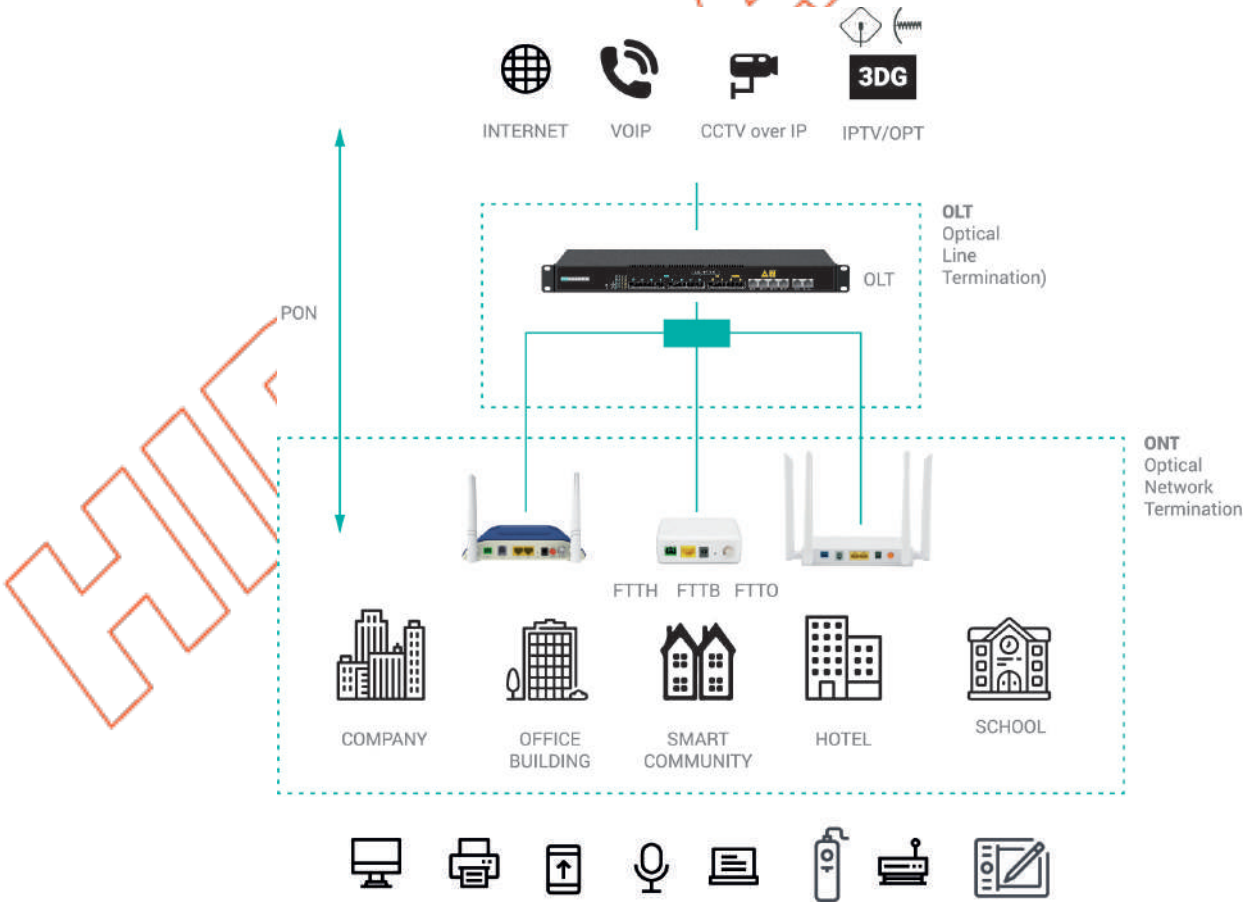


		DATA GPON 4 TX	DATA GPON 8 TX
Code		287558	287559
UPLINK port		4 x 10/100/1000M auto-negotiable, 2 x SFP 1GE / SFP+ 10GE	4 x 10/100 / 1000M auto-negotiable, 2 x SFP 1GE, 2 x SFP+ 10GE
Management port		1x 10/100Base-T (outband management port), 1x RJ45 (Console management)	1x 10/100Base-T (outband management port), 1x RJ45 (Console management)
Optical output			
Connectors type		SFP Class C ++ (SC / UPC connector)	SFP Class C ++ (SC / UPC connector)
PON ports		4x PON	8x PON
Maximum splitting		1:128	1:128
Wavelength	nm	TX: 1490 / RX: 1310	TX: 1490 / RX: 1310
Maximum transmission speed	Gbps	1,244 (Uplink) / 2,488 (Downlink)	1,244 (Uplink) / 2,488 (Downlink)
Maximum transmission distance	km	20	20
Optical power	dBm	3 ÷ 7 (@1490nm)	3 ÷ 7 (@1490nm)
Optical saturation	dBm	-12 (@1310nm)	-12 (@1310nm)
Sensitivity of the optical receiver	dBm	up to -30 (@ 1310nm)	up to -30 (@ 1310nm)
Management			
Management mode		SNMP, Telnet, CLI, Web interface, EMS	SNMP, Telnet, CLI, Web interface, EMS
Management function		- Port status, configuration and monitoring - Control on the fan group ventilation unit - Online configuration of ONT receivers - User management and alarm management	
Features			
Layer-2 features		- Up to 16k MAC Address - Supports up to 4096 VLANs - Supports VLAN ports and VLAN protocols - Supports VLAN Tag / Untag, VLAN transparent transmission; - Supports VLAN translation and QinQ - Storm control based on the port - Supports port isolation function - Supports single port traffic restriction - Supports 802.1d and 802.1w - Support static LACP - QoS based on the port, VID, TOS and MAC address - Access control list - IEEE802.x flow control - Statistical monitoring of the stability of the Ports	
Layer-3 features		- LAYER 3 Routing - ARP proxy - Static route - 1024 hardware Host Routes - 512 hardware Subnet Routes	

GPON

		DATA GPON 4 TX	DATA GPON 8 TX
Software functionality		- IGMP snooping - Up to 256 Multicast Groups - DHCP server, DHCP relay, DHCP snooping - Tcont Dynamic Band Allocation (DBA) - Gemport traffic - Compliance with the ITUT984.x standard - Transmission distance up to 20Km. - Support data encryption, multicast, port VLAN, separation, RSTP, etc. - Support ONT auto-discovery / link detection / Remote software update - Support for VLAN splitting and user separation to avoid Broadcast Storm - Support power-off alarm function for easy troubleshooting defections. - Support for Broadcasting Storm functionality - Support for isolation between different port - ACL and SNMP support for configuration and data packet filtering - Designed for system breakdown prevention to mantain stable the entire system - Support for RSTP, IGMP Proxy	
main features			
Supply voltage	Vac, Hz	100-240, 50/60	100-240, 50/60
Consumption	W	35	45
Operating temperature	°C	from 0 to +50	from 0 to +50
Storage temperature	°C	from -40 to +85	from -40 to +85
Relative humidity	%	from 5 to 90 (without conditioning)	from 5 to 90 (without conditioning)
Weight	kg	2,8	3,1
Dimensions	mm	442 x 220 x 43,6	442 x 220 x 43,6
Barcode		8016978103973	8016978103980
Packing		Single	Single
Packaging dimensions	mm	575 x 380 x 115	575x 500 x 115
Gross weight	kg	5,1	6,9

OLT installation



Fibre Optic

GPON



GPON RX PASS TV

OPTICAL NETWORK TERMINAL Series

The GPON RX range considers different models of Optical Network Termination (ONT) for data connectivity to different user terminals (PC, Smartphone, Tablet, VoIP phones, etc.).

The ONTs act as a gateway between the FTTH / PON (fibre side) and Ethernet / IP (user side) protocols allowing the management and distribution of traffic for each individual user.

- Support for ITU standards G.984.1, G984.2, G984.3, G984.4
- Gigabit Ethernet (GE) and Fast Ethernet (FE) interfaces
- Wall or stand-alone mounting
- CATV output
- Remote management and maintenance support
- Passive ONT version for the management of the CATV signal
- WIFI 802.11 b/g/n/ac

		GPON RX PASS TV	GPON RX LITE TV	GPON-RX WAC-P	GPON-RX W-TV-P
Code		287556	287557	287561	287562
Section PON					
Connector type		SC/APC single mode (Input 1550/1490/1310) SC/PC single mode (1490/1310 demix output for ONT)	SC/APC single mode	Single mode SC/PC	SC/APC single mode
Wavelength	nm	-	RX: 1490 / TX: 1310	RX: 1490 / TX: 1310	RX: 1490 / TX: 1310
Maximum transmission speed	Gbps	-	1,25 (Uplink) / 2,5 (Downlink)	1,25 (Uplink) / 2,5 (Downlink)	1,25 (Uplink) / 2,5 (Downlink)
Optical saturation	dBm	-	-	-8 (@1310nm)	-8 (@1310nm)
Sensitivity of the optical receiver	dBm	-	up to -28 (@ 1490nm)	up to -28 (@ 1490nm)	up to -27 (@ 1490nm)
Ethernet section					
Ethernet (LAN) ports		-	- 1x10 / 100 / 1000M (auto negotiation in Full / Half duplex mode) - RJ45 connector, Auto MDI / MDI X	- 2x10 / 100 / 1000M (auto negotiation in Full / Half duplex mode) - RJ45 connector, Auto MDI / MDI X	- 1x10 / 100M, 1x10 / 100 / 1000M (auto negotiation in Full / Half mode duplex) - RJ45 connector, Auto MDI / MDI X
WIFI section					
Operative mode		-	-	Router or Bridge	Router or Bridge
Compatibility / standard		-	-	IEEE 802.11b/g/n/ac	IEEE 802.11bgn
Bitrate	Mbps	-	-	up to 1167	300
2.4GHz frequency range	GHz	-	-	2,400 - 2,483	2,400 - 2,483
5GHz Frequency range	GHz	-	-	5,150 - 5,825	-
Antenna features		-	-	Supports MIMO, 5dBi external antennas, up to 1.167Gbps	-
Encryption		-	-	802.11i security: WEP 64/128, TKIP (WPA PSK) and AES (WPA2 PSK)	802.11i security: WEP 64/128, TKIP (WPA PSK) and AES (WPA2 PSK)
CATV section					
Wavelength	nm	-	1550 (±10)	-	1550 (±10)
Optical return loss	dB	55	45	-	45
Optical input level	dB	-9 ~ +2	-18 ~ +2	-	-18 ~ +2
RF frequency range	MHz	47-1000	47-1000	-	47-1000
RF output level	dBµV	60 (±2) @0dBm	82 (@-7dBm)	-	82 (@-7dBm)
Impedance	dB	75	75	-	75
Connector		F connector	-	-	F connector

		GPON RX PASS TV	GPON RX LITE TV	GPON-RX WAC-P	GPON-RX W-TV-P
POTS section					
Connector type		-	-	RJ11 (1x FWS)	RJ11 (1x FWS)
Standard		-	-	G.711A/G.711U/ G.723/G.729 codec T.30/T.38/G.711 Fax mode, DTMF Relay	G.711A/G.711U/ G.723/G.729 codec T.30/T.38/G.711 Fax mode, DTMF Relay
Management					
Management mode		-	Bridging and Routing	Bridging and Routing	Bridging and Routing
Management option		-	- the receiver can be managed remotely via DATA GPON TX - Support for remote management via SNMP and Telnet - Local network management from command line and WEB interface - Status monitoring, configuration, alarm management, log management (events) - Dual Mode (EPON / GPON) - DDOS based firewall, ACL / MAC / URL - Flow security & Storm control, Loop detection	- the receiver can be managed remotely via DATA GPON TX - Support for remote management via SNMP and Telnet - Local network management from command line and WEB interface - Status monitoring, configuration, alarm management, log management (events)	- the receiver can be managed remotely via DATA GPON TX - Support for remote management via SNMP and Telnet - Local network management from command line and WEB interface - Status monitoring, configuration, alarm management, log management (events)
General features					
Supply voltage	Vdc, mA	-	12 / 0.5 (power supply included)	12 / 1.5 (power supply included)	12 / 1.5 (power supply included)
Consumption	W	-	<4	<10	<10
Status LED		-	Registration, SYS, LINK / ACT	Power supply, LOS, PON, WAN, LAN1, LAN2, 2.4G, 5G, Phone	Power supply, PON, LAN, POTS and CATV
Operating temperature	°C	from -20 to +50	from -5 to +55	from 0 to +50	from -5 to +55
Storage temperature	°C	from -40 to +85	from -30 to +60	from -30 to +60	from -30 to +60
Weight	g	75	85	320	300
Dimensions	mm	75 x 55x 28	82 x 82x 25	178 x 30 x 120	185 x 33 x 122
Barcode		8016978103942	8016978103959	8016978104017	8016978104024
Packing		Single	Single	Single	Single
Packaging dimensions	mm	100 x 60 x 40	205 x 155 x 40	250x225x50	290x155x50
Gross weight	g	110	290	490	490

Fibre Optic

GPON

SFP Series

SFP (Small Form Factor Pluggable) modules are compact, hot-pluggable transceiver devices
Installed at the OLT level, to guarantee connectivity towards the ONTs and to guarantee the connection of Uplink

- Class C ++ SFP module suitable for the DATA GPON Series OLTs



DATA SFP C++

		DATA SFP C++	DATA SFP GE
Code		287560	287555
Connector		SC/UPC (Class C++)	LC Duplex
Type of module		-	-
Maximum splitting		1:128	-
Wavelength	nm	TX (Downlink): 1490 / RX (Uplink): 1310	TX (Downlink): 1310 / RX (Uplink): 1100 ÷ 1600
Maximum transmission speed	Gbps	1,244 (Uplink) / 2,488 (Downlink)	1,25
Maximum transmission distance	Km	20	20
Optical power	dBm	3 ÷ 7 (@1490nm)	-10 ÷ -3 (@1310nm)
Optical saturation	dBm	-12 (@1310nm)	-
Sensitivity of the optical receiver	dBm	up to -30 (@ 1310nm)	-20
General features			
Supply voltage	Vdc	3,3	3,3
Total supply current	mA	400	300
Operating temperature	°C	from 0 to +70	from 0 to +70
Storage temperature	°C	from -40 to +85	from -40 to +85
Relative humidity	%	10 to 90 (without conditioning)	10 to 90 (without conditioning)
Weight	g	35	35
Dimensions	mm	64 x 13,4 x 13,6	57 x 12,8 x 13,6
Barcode		8016978103997	8016978103935
Packing		Single	Single
Packaging dimensions	mm	64x13,4x13,6	57 x 12,8 x 13,6
Gross weight	g	90	90

GPON



EDFA OPTICAL AMPLIFIERS Series

EDFA optical amplifiers are ideal for bringing the correct optical signal back within the operating range, especially in complex optical network situations.

The amplifiers are equipped with integrated **WDM 1310-1490-1550nm diplexers**.

- EDFA amplifier (Erbium Doped Fibre Amplifier) with high output power
- High input dynamics: optical -8 to + 10dBm
- Built-in WDM multiplexer to mix the PON outputs from the OLTs

EDFA 4 WDM

		EDFA 4 WDM	EDFA 8 WDM
Code		287554	287553
Connectors type		5 x SC/APC (TV input at 1550nm and OUT 1550/1490/1310nm) 4 x SC/PC (OLT IN mixing at 1310/1490nm)	9 x SC/APC (TV input at 1550nm and OUT 1550/1490/1310nm) 8 x SC/PC (OLT IN mixing at 1310/1490nm)
Wavelength	nm	from 1540 to 1565	from 1540 to 1565
Optical input power	dBm	-5 ~ +10	-8 ~ +10
Optical output power	dBm	29 (4 x 22)	30 (8 x 20)
Optical power adjustment	dBm	0 ÷ -4 (with respect to the maximum)	0 ÷ -4 (with respect to the maximum)
Optical power stability	dBm	±0,3	±0,3
Typical noise figure	dB	≤6	≤6
Return Loss (input and output)	dB	45	45
Management			
Management mode		Keypad and front display, WEB interface, SNMP	Keypad and front display, WEB interface, SNMP
General features			
Supply voltage	Vac, Hz	100-240, 50/60	100-240, 50/60
Consumption	W	≤80	≤80
Operating temperature	°C	da 0 a +55	da 0 a +55
Storage temperature	°C	from -30 to +70	from -30 to +70
Relative humidity	%	Up to 95 (without conditioning)	Up to 95 (without conditioning)
Weight	kg	6,5	11,5
Dimensions	mm	370 x 486 x 44	422 x 486 x 88
Barcode		8016978103928	8016978103928
Packing		Single	Single
Packaging dimensions		580 x 540 x 120	580 x 540 x 120
Gross weight		9,85	14,8

Fibre Optic

MUX-DEMUX

WDM Series

Optical filters with different wavelengths for mixing or demixing up to 5 wavelengths within the same fibre cable.

- With wavelength selection code
- SC/APC connectors
- Solution for 2 or 5 Wavelengths
- Quick and easy installation



WDM 2

		CWDM5	WDM 2
Code		287342	287343
Inputs	No.	1	1
Outputs	No.	5	2
Wavelength 1	nm	1510	1290-1350
Wavelength 2	nm	1530	1490-1600
Wavelength 3	nm	1550	-
Wavelength 4	nm	1570	-
Wavelength 5	nm	1310-1490	-
Insertion loss	dB	<1.6	<0.5
Return loss	dB	>55	>55
Flatness	dB	<0.5	<0.5
Insulation	dB	>30	>30
Operating temperature	°C	-20 - +55	-20 - +55
Fibre			
Type		9/125	9/125
Length	m	1	1
Jacket		LSZH, G657A1	LSZH, G657A1
Connectors type	Type	SC/APC	SC/APC
Color code			
1511		light blue	-
1531		Yellow	-
1551		Green	-
1571		Brown	-
Second window 1310nm		White	-

SPLITTERS



VOV2

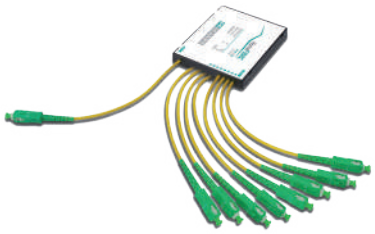
VOV Series

Miniaturized optical splitter to be used on small dimension installation boxes.

- 3mm connector
- Cap to protect the fibre ferule
- Compact splitter and taps
- Tree or star distribution
- Quick and easy installation
- Wavelength from 1260 to 1590nm
- Operating temperature from - 20° to 55°
- Dimensions 83x59x17 mm

		VOV2	VOV4
Code		287210	287211
Inputs	No.	1	1
Outputs	No.	2	4
Connectors type	Type	Mini	Mini
Wavelength	nm	1290-1600	1290-1600
insertion loss	dB	<3.9	<7.8
Tap loss	dB	-	-
Return loss	dB	>55	>55
Insulation	dB	>45	>45
Operating temperature	°C	-20 - +55	-20 - +55
Dimensions	mm	83x59x17	83x59x17

SPLITTERS



PLC 1X8



PLC 1X16 MINI

PLC Optical Splitters Series

PLC splitters are based on weveguide planar technology that allows very low insertion losses. Suitable for low cost and high performance optical distribution, they are suitable for use in several installation types.

- Low insertion loss
- High return loss
- Compact design
- SC/APC optical connector

		PLC 1x2	PLC 1x4	PLC 1x8	PLC 1x12	PLC 1x16	PLC 1x24	PLC 1x32	PLC 1x64
Code		287573	287455	287407	287574	287408	287575	287409	287410
Inputs	No.	1							
Outputs	No.	2	4	8	12	16	24	32	64
Connectors type	Type	SC/APC							
Wavelength	nm	1260-1650							
insertion loss	dB	<4	<7.6	<10.9	<13.1	<14	<16.3	<17.2	<20.5
Return loss	dB	>55							
Insulation	dB	>40							
Operating temperature	°C	-20 - +55							
Dimensions	mm	90x100x20							

		PLC 1x2 MINI	PLC 1x4 MINI	PLC 1x8 MINI	PLC 1x12 MINI	PLC 1x16 MINI	PLC 1x24 MINI	PLC 1x32 MINI	PLC 1x64 MINI
Code		287576	287577	287578	287579	287580	287581	287582	287583
Inputs	No.	1							
Outputs	No.	2	4	8	12	16	24	32	64
Connectors type	Type	SC/APC							
Wavelength	nm	1260-1650							
insertion loss	dB	<4	<7.6	<10.9	<13.1	<14	<16.3	<17.2	<20.5
Return loss	dB	>55							
Insulation	dB	>40							
Operating temperature	°C	-20 - +55							

Fibre Optic

FIBRE ACCESSORIES

OPTICAL FIBRE CABLE Series

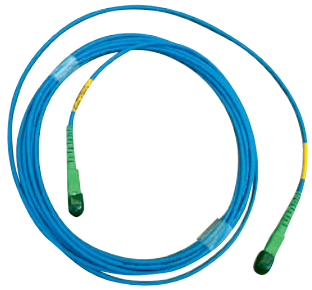
Optical patch cords and cables different lengths for all installation needs, of a fibre optic system.



OPCABO



OPC 8 ARM



BR1-AA

Item	Code	Description	Type	Length (m)	Connector
OPC 4 ARM	287344	Outdoor single mode loose tube fibre Glass antirodent protection	4 Fibre 9/125	500	Without connector
OPC 8 ARM	287346	Outdoor single mode loose tube fibre Glass antirodent protection	8 Fibres 9/125	500	Without connector
OPC 8 INDOOR	287425	Loose tube cable Singlemode indoor optical fibre (G.657 Category A)	8 Fibres 9/125	500	Without connector
OPCABO2	287446	Indoor 2 single mode fibre cable LSZH jacket	2 fibre 9/125	-	Without connector
OPCABO4	287447	Indoor 4 single mode fibre cable LSZH jacket	4 Fibre 9/125	250	Without connector
OPCGC12	287448	Outdoor 12 single mode fibre cable with steel armored	12 fibre 9/125	300	Without connector
OPCGC24	287449	Fibre optic cable with steel tie rods with PE sheath for outdoor use with 24 singlemode fibres 9/125 diam. 7mm	24 fibre 9/125	300	Without connector
OPCCOL12	287452	indoor LSZH 12 single mode fibre cable	12 fibre 9/125	300	Without connector
BR1-AA	287522	Single mode patch cord	9/125	1	SC/APC-SC/APC
BR2-AA	289360	Single mode patch cord	9/125	2	SC/APC-SC/APC
BR4-AA	289362	Single mode patch cord	9/125	4	SC/APC-SC/APC
BR2-PA	289359	Single mode patch cord	9/125	2	SC/APC-SC/PC
BR4-PA	289361	Single mode patch cord	9/125	4	SC/APC-SC/PC
BR2SCAPC-FCAPC	287427	Single mode patch cord	9/125	2	SC/APC-FC/APC
BR2FC/PC-SC/APC	287521	Single mode patch cord	9/125	2	SC/APC-FC/PC
BR2FCAPC-MINI	287428	Single mode patch cord	9/125	2	MINI-FC/APC

FIBRE ACCESSORIES

ACCESSORIES FOR FIBRE CABLES Series

Attenuators and accessories for optical cables



Item	Code	Description	Pcs
PIG TAIL	287426	900um single mode pigtail (1m)	1
FC-SC/APC	280011	Single mode patch cord	1
BFO-SC-APC	289349	SC\APC adapter	10
OPTATT3DB	287239	3dB optical attenuator	1
OPTATT7DB	287238	7dB optical attenuator	1
OPTATT14DB	287237	14dB optical attenuator	1

FIBRE BOXES

BOXES Series

Rack, plastics and metal box for the protection of optical splicing and connections.

- Indoor and outdoor
- the boxes needed to satisfy an FTTH solution
- 19" rack solutions



CSOE 2U



TDT 12



287569



OPB18I

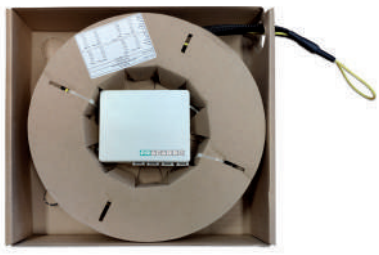
Item	Code	Description	Dimensions mm
CSOE 2U	287418	Metal box for FTTH cabling - Wall and 19 "rack mounting	454x152x180
CSOE_P	287567	Building optical services cabinet in plastic material (IP54) for FTTH multiservice systems (CEI306-2) complete with 6 splicing organizers and accessories	450x180x150
CSOE_MINI_P	287566	Building optical services cabinet in plastic material (IP54) for FTTH multiservice systems (CEI306-2) complete with 4 splicing organizers and accessories	332x155x105
TDT 12	287419	IP 66 plastic box to be used as terminal head-end Suitable for 12 SC/APC optical connectors Fibre organizer built-in	235x205x60
TDT_32	287441	IP 66 plastic box to be used as terminal head-end	205x135x55
JTDT_32	287442	protection cover for TDT 32	140x80x40
QDSA	287472	Apartment wall box (54 modules), complete with 2 DIN bars with relative accessories for Router, RJ45 patch-cord active devices for data and SC/APC adapters (dimensions 455x136x610mm excluding plastic frame)	455x136x610
QDSA F	287565	Standard metal wall-mounted apartment box to house active devices and organize the optical fibre cable. Panels for KEYSTONE inserts and metallic brackets included. (dimensions 577x407x100mm excluding frame)	577x407x100
QDSA MINI F	287517	Miniaturized metal wall-mounted apartment box to house active devices and organize the optical fibre cable. Panels for KEYSTONE inserts and metallic brackets included. (dimensions 390x305x110mm excluding frame)	390x305x110
QDSA-36-P	287569	Plastic miniaturized Apartment Signal Distribution Panel IP40 (36 modules), for FTTH multiservice systems (external dimensions 430x410x80mm)	430x410x80
QDSA-54-P	287570	Plastic Apartment Signal Distribution Panel IP40 (54 modules), for FTTH multiservice systems (external dimensions 430x618x80mm)	430x618x80
OPB18I	289403	Wall metal box suitable for 18 optical connections SC/APC 18 SC/APC	365x320x100
OPB8I	289405	Wall metal box suitable for 18 optical connections SC/APC Suitable for 8 SC/APC connections	160x140x50
OPB24IR	289404	Rack mount box for 24 SC/APC optical connections 24 SC/APC	240x482x44
OPO12P	289402	12-position Fibre organizer 12-splicing box	150x95x10

Fibre Optic

INDOOR FIBRE BOXES



STOA 4



STOA 4 ..

New 2021 **STOA pre-connectorized only on the STOA side** will be available from May 2021

Item	Code	Description	Dimensions
STOA 4	287420	Apartment optical termination box with 4 SC/APC adapters with Shooter	100x92x29
STOA 4 10m	287511	STOA 4 SC/APC adapters with Shooter with 10m of 4-fibre cable pre-connectorized on both sides.	250x250x50
STOA 4 20m	287512	STOA 4 SC/APC adapters with Shooter with 20m of 4-fibre cable pre-connectorized on both sides.	250x250x50
STOA 4 30m	287513	STOA 4 SC/APC adapters with Shooter with 30m of 4-fibre cable pre-connectorized on both sides.	250x250x50
STOA 4 40m	287514	STOA 4 SC/APC adapters with Shooter with 40m of 4-fibre cable pre-connectorized on both sides.	250x250x50
STOA 4 50m	287515	STOA 4 SC/APC adapters with Shooter with 50m of 4-fibre cable pre-connectorized on both sides.	250x250x50
STOA 4 100m	287516	STOA 4 SC/APC adapters with Shooter with 100m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50
STOA 4 10m LITE	287584	STOA 4 SC/APC adapters with Shooter with 10m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50
STOA 4 20m LITE	287585	STOA 4 SC/APC adapters with Shooter with 20m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50
STOA 4 30m LITE	287586	STOA 4 SC/APC adapters with Shooter with 30m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50
STOA 4 40m LITE	287587	STOA 4 SC/APC adapters with Shooter with 40m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50
STOA 4 50m LITE	287588	STOA 4 SC/APC adapters with Shooter with 50m of 4-fibre cable pre-connectorized only on the STOA side.	250x250x50

PRETERMINATED CABLES

CABLES WITH MIN-MIN CONNECTOR Series

Patch cords with MIN-MIN connectors with different lengths for all installation needs of a fibre optic system.



PR003

Item	Code	Description	Type	Length (m)	Connector
PR003	287219	Preterminated single mode fibre Optical return loss>55; Length 3mt	9/125	3	Mini-Mini
PR005	287220	Preterminated single mode fibre Optical return loss>55; Length 5mt	9/125	5	Mini-Mini
PR010	287221	Preterminated single mode fibre Optical return loss>55; Length 10m	9/125	10	Mini-Mini
PR025	287222	Preterminated single mode fibre Optical return loss>55; Length 25m	9/125	25	Mini-Mini
PR035	287327	Preterminated single mode fibre Optical return loss>55; Length 35m	9/125	35	Mini-Mini
PR050	287328	Preterminated single mode fibre Optical return loss>55; Length 50m	9/125	50	Mini-Mini
PR075	287329	Preterminated single mode fibre Optical return loss>55; Length 75m	9/125	75	Mini-Mini
PR100	287223	Preterminated single mode fibre Optical return loss>55; Length 100m	9/125	100	Mini-Mini

ACCESSORIES MINI

ACCESSORIES FOR MIN-MIN CABLES Series

Accessories for splitters, taps and cables with MIN-MIN connectors.

Item	Code	Description	Pcs
MIN/MIN	287225	MIN-MIN adapter	10
PR ADAPT	287226	SC/APC - Mini patch cord	1
SUPP VOV/VOT	287240	Wall fixing support (VOV / VOT)	10
PULL CONN	287224	Pulling connector for Mini	20



MIN/MIN



PR ADAPT



SUPP VOV/VOT



PULL CONN

Multiswitches

COMPACT MULTISWITCHES

5-INPUT COMPACT Series 84
9-INPUT COMPACT Series 85
17-INPUT COMPACT Series 86

CASCADABLE MULTISWITCHES

4-INPUT CASCADABLE Series 87
5-INPUT CASCADABLE Series 88
5-INPUT CASCADABLE PLUS Series 89
9-INPUT CASCADABLE PLUS Series 91
9-INPUT CASCADABLE Series 92
13-INPUT CASCADABLE Series 93
17-INPUT CASCADABLE Series 94

SCD2 (dCSS) MULTISWITCHES

4-INPUT CASCADABLE SCD2 MULTIO-UTPUT Series 95
4-INPUT SCD2 COMPACT ADAPTOR Series 96
WIDEBAND 5-INPUT SCD2 CASCADABLE Series 97
WIDEBAND 5-INPUT CASCADABLE ADJUSTABLE Series 98
SCD2-32IF Series 100

HEAD AMPLIFIERS

HEAD AMPLIFIERS Series 102
HEAD AMPLIFIERS Series With A.B.L.A. 103

LINE AMPLIFIERS

2/4-INPUT LINE AMPLIFIERS Series 104
4-INPUT LINE AMPLIFIERS Series with A.B.L.A. 105
9/17-INPUT LINE AMPLIFIERS Series with A.B.L.A. 106

POWER SUPPLY UNIT

POWER SUPPLY UNIT Series 107

MULTISWITCH ACCESSORIES

TAPS AND SPLITTER Series 110

MULTISWITCH ACCESSORIES

MULTISWITCH ACCESSORIES Series 110

HIPERANTENA

Multiswitches

COMPACT MULTISWITCHESES



SWP508TS



PSU1315TS

5-INPUT COMPACT SERIES

5-input COMPACT MULTISWITCHESes with **dip switch to select active or passive TV gain**.

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabledd, it has to be fed by DC-PLUG
- **Stand alone power supply PSU1315TS** (13V, 1,5A) **included** with standard Male Jack connector (2,1x5,5x12; internal positive, external negative) to optimize the installation space and reduce the maintenance time
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWP508TS	SWP512TS	SWP516TS
Code		287518	287519	287520
Inputs		4 SAT, 1 TV	4 SAT, 1 TV	4 SAT, 1 TV
Taps		8	12	16
SAT				
Bandwidth	MHz	950-2300	950-2300	950-2300
Positive slope gain	dB	-2/2	-3/1	-3/1
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100
SAT-SAT insulation	dB	>30	>30	>30
TV				
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	1	0	-1
Passive gain	dB	-19	-20	-21
Maximum output level (-35dBc 2 toni)	dBµV	Active TV gain: 92	Active TV gain: 92	Active TV gain: 92
Return channel				
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption				
Tap consumption	mA	40	40	40
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340
Main features				
Dimensions	mm	110x130x40	170x130x40	170x130x40
PSU dimensions	mm	90x70x45	90x70x45	90x70x45
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

COMPACT MULTISWITCHES



SWP916TS



PSU1315TS

9-INPUT COMPACT Series

9-input COMPACT MULTISWITCHESes with **dip switch to select active or passive TV gain**

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabled, it has to be fed by DC-PLUG
- **Stand alone power supply PSU1315TS** (13V, 1,5A) **included** with standard Male Jack connector (2,1x5,5x12; internal positive, external negative) to optimize the installation space and reduce the maintenance time
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWP908TS	SWP912TS	SWP916TS	SWP924TS	SWP932TS
Code		287350	287351	287352	287353	287354
Inputs		8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV
Taps		8	12	16	24	32
SAT						
Bandwidth	MHz	950-2300	950-2300	950-2300	950-2300	950-2300
Positive slope gain	dB	-2/2	-3/1	-3/1	-5/-1	-7/-2
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100	100	100
SAT-SAT insulation	dB	>30	>30	>30	>30	>30
TV						
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	1	0	-1	-2	-4
Passive gain	dB	-19	-20	-21	-22	-24
Maximum output level (-35dBc 2 toni)	dBµV	TV active gain: 95	TV active gain: 95	TV active gain: 95	TV active gain: 95	TV active gain: 95
Return channel						
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption						
Tap consumption	mA	50	50	50	50	50
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340
Main features						
Dimensions	mm	110x190x40	170x190x40	170x190x40	230x190x40	300x190x40
PSU dimensions	mm	90x70x45	90x70x45	90x70x45	90x70x45	90x70x45
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55	-10÷+55

Multiswitches

COMPACT MULTISWITCHES



SWP1712TS



PSU1340TS

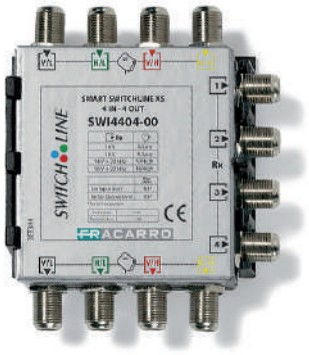
17-INPUT COMPACT Series

17-input COMPACT MULTISWITCHESes with **dip switch to select active or passive TV gain**.

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabled, it has to be fed by DC-PLUG
- **Stand alone power supply PSU1340TS** (13V, 4A) **included** with male jack connector (2,1x5,5x12; inner positive, outer negative) to optimize the installation dimensions.
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWP1708TS	SWP1712TS	SWP1716TS	SWP1724TS	SWP1732TS
Code		287355	287356	287357	287358	287359
Inputs		16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV
Taps		8	12	16	24	32
SAT						
Bandwidth	MHz	950-2300	950-2300	950-2300	950-2300	950-2300
Positive slope gain	dB	-4/0	-5/-1	-5/-1	-7/-3	-8/-4
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100	100	100
SAT-SAT insulation	dB	>30	>30	>30	>30	>30
TV						
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	0	-1	-2	-3	-5
Passive gain	dB	-20	-21	-22	-23	-25
Maximum output level (-35dBc 2 toni)	dBµV	TV active gain: 95	TV active gain: 95	TV active gain: 95	TV active gain: 95	TV active gain: 95
Return channel						
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption						
Tap consumption	mA	50	50	50	50	50
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840
Main features						
Dimensions	mm	120x310x40	190x310x40	190x310x40	260x310x40	310x310x40
PSU dimensions	mm	110x52x34	110x52x34	110x52x34	110x52x34	110x52x34
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55	-10÷+55

CASCADABLE MULTISWITCHES



SWI4404-00

4-INPUT CASCADABLE Series

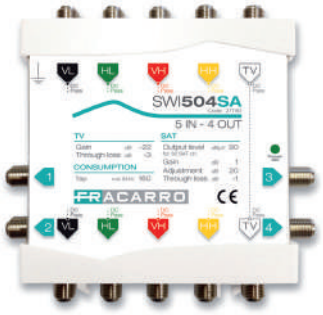
CASCADABLE MULTISWITCHESes with 4 inputs with several attenuations on user taps.

- **3 attenuation levels (-17dB, -8dB, 0dB)** to equalize the distributed signals between floors
- Low insertion loss
- **Very high SAT output level** to run long cable drop with the correct signal power at the STBs (**70m** with 6.7mm coax.)
- **No power supply required**
- **STBs can feed the LNB also with just one user connected** or the LNB can be feeded through trunk lines.
- Plastic wall mount bracket
- Standard colour coding for an easy installation

		SWI4404-00	SWI4404-08	SWI4404-17
Code		271081	271082	271083
Inputs		4 SAT	4 SAT	4 SAT
Taps		4 SAT	4 SAT	4 SAT
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	0	-8	-17
Maximum output level (-35dBc 2 toni)	dBµV	105	105	-
Insertion loss	dB	-2	-2	-2
SAT-SAT insulation	dB	>28	>28	>28
Tap consumption	mA	35	35	15
Dimensions	mm	90x70x20	90x70x20	90x70x20
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55
		SWI4406-00	**SWI4406-08**	**SWI4406-17**
Code		271084	271085	271086
Inputs		4 SAT	4 SAT	4 SAT
Taps		6 SAT	6 SAT	6 SAT
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	0	-8	-17
Maximum output level (-35dBc 2 toni)	dBµV	105	105	-
Insertion loss	dB	-2	-2	-2
SAT-SAT insulation	dB	>28	>28	>28
Tap consumption	mA	35	35	15
Dimensions	mm	119x70x20	119x70x20	119x70x20
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55
		SWI4408-00	**SWI4408-08**	**SWI4408-17**
Code		271087	271088	271089
Inputs		4 SAT	4 SAT	4 SAT
Taps		8 SAT	8 SAT	8 SAT
Bandwidth	MHz	950-2150	950-2150	950-2150
Gain	dB	0	-8	-17
Maximum output level (-35dBc 2 toni)	dBµV	105	105	-
Insertion loss	dB	-2	-2	-2
SAT-SAT insulation	dB	>28	>28	>28
Tap consumption	mA	35	35	15
Dimensions	mm	150x70x20	150x70x20	150x70x20
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

Multiswitches

CASCADABLE MULTISWITCHESES



SWI504SA

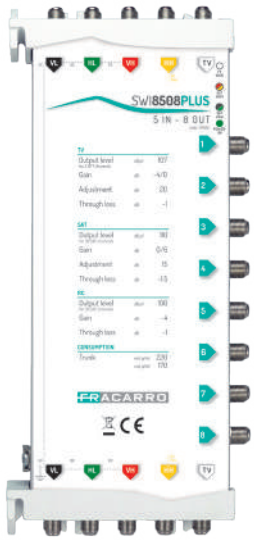
5-INPUT CASCADABLE Series

5-input CASCADABLE MULTISWITCHESes with passive terrestrial and active adjustable satellite.

- **Active satellite** (1dB) to keep the same input signal level on outputs, **passive TV**
- **Satellite gain adj.** (0-20dB) to equalize the distribution between floors.
- Satellite band up to 2300MHz
- High insulation (30dB)
- **Low insertion loss**, allow the signal distribution up to 6 floors without any middle amplification.
- **Very high SAT output level** to run long cable drop with the correct signal power at the STBs (**70m** with 6.7mm coax.)
- Return path included
- **No power supply required**
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation
- Excellent quality/price ratio

		SWI504SA	SWI506SA	SWI508SA
Code		271161	271162	271163
Inputs		4 SAT, 1 TV	4 SAT, 1 TV	4 SAT, 1 TV
Taps		4	6	8
SAT				
Bandwidth	MHz	950-2300	950-2300	950-2300
Positive slope gain	dB	-4/1	-4/1	-4/1
Gain adjustment	dB	20	20	20
Insertion loss	dB	-1	-1	-1
SAT-SAT insulation	dB	>30	>30	>30
TV				
Bandwidth	MHz	88-790	88-790	88-790
Gain	dB	-22	-22	-23
Insertion loss	dB	-3	-3	-3
Power consumption				
Tap consumption	mA	160	170	180
Max current on SAT Line	mA	2000	2000	2000
Max current on TV line	mA	1000	1000	1000
Main features				
Dimensions	mm	120x120x30	140x120x30	160x120x30
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

CASCADABLE MULTISWITCHESES



SWI8508PLUS

5-INPUT CASCADABLE PLUS Series

5-input cascadable multiswiitches with active SAT and terrestrial and separate adjustment.

- **TV Gain adjustment**
- **2 gain adjustments for High band and Low band**
- High insulation (>45dB)
- Low insertion loss
- **High output level** to cover high cable lenght (**100m** with 6.7mm coax)
- Return path included
- Low power consumption thanks to automatic check of the satellite remote feeding.
- Standard colour coding for an easy installation

TENA

		SWI8508PLUS	SWI8512PLUS	SWI8516PLUS
Code		271055	271056	271063
Inputs		4 SAT, 1 TV	4 SAT, 1 TV	4 SAT, 1 TV
Taps		8	12	16
SAT				
Bandwidth	MHz	950-2150	950-2150	950-2150
Positive slope gain	dB	0\6	0\5	0\4
Gain adjustment	dB	15	15	15
Maximum output level (-35dBc 2 toni)	dBµV	110	110	108
Insertion loss	dB	-1.5	-2	-2.5
SAT-SAT insulation	dB	>45	>45	>45
TV				
Bandwidth	MHz	85-862	85-862	85-862
Positive slope gain	dB	-4/0	-6\-2	-8/-4
Gain adjustment	dB	20	20	20
Maximum output level (-35dBc 2 toni)	dBµV	107	105	102
Insertion loss	dB	-1	-1.5	-2
Return channel				
Bandwidth	MHz	5-65	5-65	5-65
Gain	dB	-4	-5	-6
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100
Insertion loss	dB	-1	-1	-1
Main features				
Current cons.	mA, V	220, 14 170, 18	220, 14 170, 18	220, 14 170, 18
Dimensions	mm	260x120x30	340x120x30	425x120x30
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

Multiswitches

CASCADABLE MULTISWITCHES



SWI8524STPLUS

5-INPUT CASCADABLE PLUS Series

5-input cascadable multiswiitches with active SAT and terrestrial and separate adjustment. **Coupled mechanics**.

- **TV Gain adjustment**
- **2 gain adjustments for High band and Low band**
- High insulation (>45dB)
- Low insertion loss
- **High output level** to cover high cable lenght (**100m** with 6.7mm coax)
- Return path included
- Low power consumption thanks to automatic check of the satellite remote feeding.
- Standard colour coding for an easy installation

		SWI8524STPLUS	SWI8532STPLUS
Code		271057	271058
Inputs		4 SAT, 1 TV	4 SAT, 1 TV
Taps		24	32
SAT			
Bandwidth	MHz	950-2150	950-2150
Positive slope gain	dB	-2\5	-2\4
Gain adjustment	dB	15	15
Maximum output level (-35dBc 2 toni)	dBµV	110	108
Insertion loss	dB	-4	-5
SAT-SAT insulation	dB	>45	>45
TV			
Bandwidth	MHz	85-862	85-862
Positive slope gain	dB	-7\2	-10/-4
Gain adjustment	dB	20	20
Maximum output level (-35dBc 2 toni)	dBµV	105	102
Insertion loss	dB	-3	-4
Return channel			
Bandwidth	MHz	5-65	5-65
Gain	dB	-5	-6
Maximum output level (-35dBc 2 toni)	dBµV	100	100
Insertion loss	dB	-2	-2
Main features			
Current cons.	mA, V	440, 14 340, 18	440, 14 340, 18
Dimensions	mm	355x120x60	440x120x60
Operating temperature	°C	-10÷+55	-10÷+55

CASCADABLE MULTISWITCHES



SWI8908PLUS

9-INPUT CASCADABLE PLUS Series

9-input CASCADABLE MULTISWITCHESes with active gain and separate adj. on satellite and terrestrial bands.

- **TV Gain adjustment**
- **2 adjustments, one for each satellite**, Satellite A and Satellite B separate
- High insulation (>45dB)
- Low insertion loss
- **High output level** to cover high cable lenght (**100m** with 6.7mm coax)
- Return path included
- Low power consumption thanks to automatic check of the satellite remote feeding.
- Standard colour coding for an easy installation

		SWI8908PLUS	SWI8912PLUS	SWI8916PLUS
Code		271067	271068	271069
Inputs		8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV
Taps		8	12	16
SAT				
Bandwidth	MHz	950-2150	950-2150	950-2150
Positive slope gain	dB	-2\3	-3\2	-5\0
Gain adjustment	dB	15	15	15
Maximum output level (-35dBc 2 toni)	dBµV	110	110	108
Insertion loss	dB	-2	-2.5	-3
SAT-SAT insulation	dB	>45	>45	>45
TV				
Bandwidth	MHz	85-862	85-862	85-862
Positive slope gain	dB	-7\-3	-9\-4	-11\-5
Gain adjustment	dB	20	20	20
Maximum output level (-35dBc 2 toni)	dBµV	107	105	102
Insertion loss	dB	-1.5	-2	-2.5
Return channel				
Bandwidth	MHz	5-65	5-65	5-65
Gain	dB	-3	-5	-7
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100
Insertion loss	dB	-1.5	-1.5	-1.5
Main features				
Current cons.	mA, V	350, 14 280, 18	350, 14 280, 18	350, 14 280, 18
Dimensions	mm	260x180x30	340x180x30	425x180x30
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

Multiswitches

CASCADABLE MULTISWITCHES



SWI912TS



PSU1315TS

9-INPUT CASCADABLE Series

9-input CASCADABLE MULTISWITCHESes with **dip switch to select active or passive TV gain**.

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabledd, it has to be fed by DC-PLUG
- **External power Supply PSU1315TS** (13V, 1,5A) Jack Male connector (2,1x5,5x12; inner positive, outer negative) **NOT included**; to optimize installation dimensions.
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWI908TS	SWI912TS	SWI916TS	SWI924TS	SWI932TS
Code		287360	287361	287362	287363	287364
Inputs		8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV	8 SAT, 1 TV
Taps		8	12	16	24	32
SAT						
Bandwidth	MHz	950-2300	950-2300	950-2300	950-2300	950-2300
Positive slope gain	dB	-2/2	-3/1	-3/1	-5/-1	-6/-2
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100	100	100
Insertion loss	dB	-1\-3	-1\-4	-1\-5	-1.5\-6	-1.5\7.5
SAT-SAT insulation	dB	>30	>30	>30	>30	>30
TV						
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	-2	-3	-4	-5	-6
Passive gain	dB	-22	-23	-24	-25	-26
Maximum output level (-35dBc 2 toni)	dBµV	Active:95	Active:95	Active:95	Active:95	Active:95
Insertion loss	dB	-3\-4	-3\-4.5	-3\-4.5	-3\-4.5	-3\-5
Return channel						
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption						
Tap consumption	mA	50	50	50	50	50
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340	Passive TV: 1500 Active TV: 1340
Main features						
Dimensions	mm	110x190x40	170x190x40	170x190x40	230x190x40	300x190x40
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55	-10÷+55

CASCADABLE MULTISWITCHES



SWI1316TS



PSU1340TS

13-INPUT CASCADABLE Series

13-input CASCADABLE MULTISWITCHESes with **dip switch to select active or passive TV gain**.

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabledd, it has to be fed by DC-PLUG
- **External power Supply PSU1340TS** (13V, 4A) Jack Male connector (2,1x5,5x12; inner positive, outer negative) **NOT included**; to optimize installation dimensions.
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWI1308TS	SWI1312TS	SWI1316TS
Code		287365	287366	287367
Inputs		12 SAT, 1 TV	12 SAT, 1 TV	12 SAT, 1 TV
Taps		8	12	16
SAT				
Bandwidth	MHz	950-2300	950-2300	950-2300
Positive slope gain	dB	-4/0	-5/-1	-5/-1
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100
Insertion loss	dB	-1\-3	-1\-4	-1\-5
SAT-SAT insulation	dB	>30	>30	>30
TV				
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	-2	-3	-4
Passive gain	dB	-22	-23	-24
Maximum output level (-35dBc 2 toni)	dBµV	Active:95	Active:95	Active:95
Insertion loss	dB	-4\-5	-4\-5	-4\-5
Return channel				
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption				
Tap consumption	mA	50	50	50
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840
Main features				
Dimensions	mm	120x310x40	190x310x40	190x310x40
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55

Multiswitches

CASCADABLE MULTISWITCHES



SWI1716TS



PSU1340TS

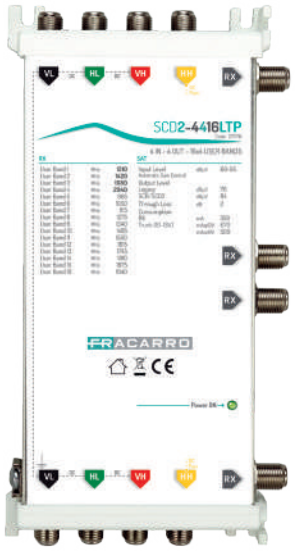
17-INPUT CASCADABLE Series

17-input CASCADABLE MULTISWITCHESes with **dip switch to select active or passive TV gain**.

- Satellite band up to 2300MHz
- **High SAT output level** to run long cable drop (**60m** with 6.7mm coax.)
- Each port has a LED which shows the correct reception of the STB DiSEqC command
- Return channel included when TV gain is passive (5-65MHz)
- **When TV gain is passive, the product is entirely fed by tap ports**; only when TV active is enabled, it has to be fed by DC-PLUG
- **External power Supply PSU1340TS** (13V, 4A) Jack Male connector (2,1x5,5x12; inner positive, outer negative) **NOT included**; to optimize installation dimensions.
- Space reduced thanks to the matrix system with both sided connectors
- Standard colour coding for an easy installation

		SWI1708TS	SWI1712TS	SWI1716TS	SWI1724TS	SWI1732TS
Code		287368	287369	287370	287371	287372
Inputs		16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV	16 SAT, 1 TV
Taps		8	12	16	24	32
SAT						
Bandwidth	MHz	950-2300	950-2300	950-2300	950-2300	950-2300
Positive slope gain	dB	-4/0	-5/-1	-5/-1	-7/-3	-8/-4
Maximum output level (-35dBc 2 toni)	dBµV	100	100	100	100	100
Insertion loss	dB	-1\-3	-1\-4	-1\-5	-2\-6.5	-2\-8
SAT-SAT insulation	dB	>30	>30	>30	>30	>30
TV						
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	-2	-3	-4	-5	-7
Passive gain	dB	-22	-23	-24	-25	-27
Maximum output level (-35dBc 2 toni)	dBµV	Active:95	Active:95	Active:95	Active:95	Active:95
Insertion loss	dB	-4\-5	-4\-5	-4\-5	-4\-5.5	-4\-6
Return channel						
Bandwidth	MHz	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65	Passive TV: 5-65
Power consumption						
Tap consumption	mA	50	50	50	50	50
Current cons.	mA, V	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required	Active TV: 160, 13 Passive TV no power supply required
Maximum LNB current	mA	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840	Passive TV: 4000 Active TV: 3840
Main features						
Dimensions	mm	120x310x40	190x310x40	190x310x40	260x310x40	310x310x40
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55	-10÷+55

SCD2 (DCSS) MULTISWITCHES



SCD2-4416LTP

4-INPUT CASCADABLE SCD2 MULTI-OUTPUT Series

4-input SCD2 (dCSS) CASCADABLE MULTISWITCHESes, with AGC and 2 or 4 taps.

- **4 inputs, 4 passing outputs and 2 or 4 user taps**, 4 SCR tuners and 12 SCD2 tuners dCSS simultaneously for each output
- **Automatic Gain Control (AGC)**: maintains an adequate output signal (85dBµV) even when the power of the input signal varies (from 60dBµV to 95dBµV)
- **Low insertion loss**, perfect to carry out cascadable installations or to be installed in an existing multiswitch distribution
- **Autodetection of operation mode** depending on the STB connected to the port; this allows you to switch from a Legacy STB to an SCR or SCD2 without performing any intervention on the system. The multiswitch automatically starts in **Legacy** mode and switches to **SCR or SCD2** mode as soon as it detects a DiSEqC command.
- **No power supply required**
- DC Passthrough on all satellite ports
- **Small dimensions**
- Easy to install thanks to inputs standard colors.
- **Optional AMP2000 power supply** to power the multiswitch on the VL line when the decoder is unable to support the load of the tap.

		SCD2-4216LTP	SCD2-4416LTP
Code		271175	271176
Inputs		4 SAT	4 SAT
Taps		2 for 2 Legacy users, 8 SCR tuners or 32 SCD2 (dCSS) tuners	4 for 4 Legacy users, 16 SCR tuners or 64 SCD2 (dCSS) tuners
SAT			
Bandwidth	MHz	950-2150	950-2150
Automatic Gain Control	dBµV	60-95	60-95
Max output level (per Transponder)	dBµV	Legacy: 78, SCR/SCD2 (dCSS): 85	Legacy: 78, SCR/SCD2 (dCSS): 85
Insertion loss	dB	-1	-2
SAT-SAT insulation	dB	>30	>30
Tap			
SAT band	MHz	950-2150	950-2150
SCR frequencies	MHz	1210, 1420, 1680, 2040 (complies with the EN50494 standard) 985, 1050, 1115, 1275, 1340, 1485, 1550, 1615, 1745, 1810, 1875, 1940 (complies with the EN50607 standard)	1210, 1420, 1680, 2040 (complies with the EN50494 standard) 985, 1050, 1115, 1275, 1340, 1485, 1550, 1615, 1745, 1810, 1875, 1940 (complies with the EN50607 standard)
Power consumption			
Tap consumption	mA@13V	350	350
Current cons.	mA@13V	PSU on DC-IN or VL: 330; HL, VH or HH pass	PSU on DC-IN or VL: 600; HL, VH or HH pass
Supply voltage	V	10-19	10-19
Main features			
Dimensions	mm	90x105x22	90x180x22
Operating temperature	°C	-10÷+55	-10÷+55

FRACARRO

SCD2 (DCSS) MULTISWITCHES



SCD2-5216W

WIDEBAND 5-INPUT SCD2 CASCADABLE series, MULTI-OUTPUT

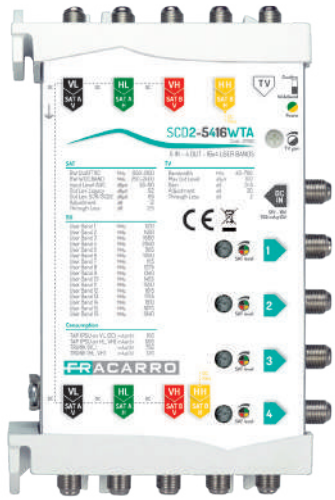
5-input SCD2 (dCSS) CASCADABLE MULTISWITCHESes, with AGC and 2, 4, 6 or 8 taps.
Compatible with Wideband LNB.

- **4 Satellite inputs and 1 TV input, 5 pass-through outputs and 2, 4, 6 or 8 user taps**, 4 SCR tuners and 12 SCD2 dCSS tuners simultaneously for each output
- Compatible with both traditional LNB (**UX-QT LTE**) and with **Wideband LNB (UX-WB LTE)** to distribute the **4 polarities of a satellite with just two cables**
- **Passive TV** input to mix the DTT and Satellite signals in distribution
- **Automatic Gain Control (AGC)**: maintains an adequate output signal (85dBµV) even when the input signal power varies
- **Autodetection of operation mode** depending on the STB connected to the port; this allows you to switch from a Legacy STB to an SCR or SCD2 without performing any intervention on the system. The multiswitch automatically starts in **Legacy** mode and switches to **SCR or SCD2** mode as soon as it detects a DiSEqC command.
- Low insertion loss
- DC Passthrough on all satellite ports
- **FVM Flexible Voltage Management** allows to power the multiswitch in different modes with no need to act on a dipswitch
- **PSU3001 or AMP2000 power supply not included** with DC inserter on F connector to power the LNB, the eventual head amplifier and the multiswitch when the decoder is unable to support the load of the tap.

		SCD2-5216W	SCD2-5416W	SCD2-5616W	SCD2-5816W
Code		271184	271180	271183	271179
Inputs		4 SAT, 1 TV	4 SAT, 1 TV	4 SAT, 1 TV	4 SAT, 1 TV
Taps		2 for 2 Legacy users, 8 SCR tuners or 32 SCD2 (dCSS) tuners	4 for 4 Legacy users, 16 SCR tuners or 64 SCD2 (dCSS) tuners	6 to serve up to 6 Legacy users, 24 SCR users or 96 SCD2 (dCSS) users	8 for 8 Legacy users, 32 SCR tuners or 128 SCD2 (dCSS) tuners
SAT					
Bandwidth	MHz	Quattro: 950-2150; Wideband 250-2400			
Automatic Gain Control	dBµV	60-90	55-90	58-90	60-90
Max output level (per Transponder)	dBµV	Legacy: 78, SCR/SCD2 (dCSS): 85	Legacy: 78, SCR/SCD2 (dCSS): 85	Legacy: 78, SCR/SCD2 (dCSS): 85	Legacy: 78, SCR/SCD2 (dCSS): 85
Insertion loss	dB	-2	-2.5	-3	-3.5
SAT-SAT insulation	dB	>25	>25	>25	>25
TV					
Bandwidth	MHz	40-790	40-790	40-790	40-790
Gain	dB	-14	-14	-16	-18
Insertion loss	dB	-1.5	-3.5	-4	-4.5
Tap					
SAT band	MHz	950-2150	950-2150	950-2150	950-2150
TV band	MHz	40-790	40-790	40-790	40-790
SCR frequencies	MHz	1210, 1420, 1680, 2040 (complies with the EN50494 standard) 985, 1050, 1115, 1275, 1340, 1485, 1550, 1615, 1745, 1810, 1875, 1940 (complies with the EN50607 standard)			
Power consumption					
Tap consumption	mA@13V	PSU on DC-IN or VL: 20; PSU on HL or VH: 330	PSU on DC-IN or VL: 85; PSU on HL or VH: 400	PSU on DC-IN or VL: 85; PSU on HL or VH: 400	PSU on DC-IN or VL: 85; PSU on HL or VH: 400
Current cons.	mA@13V	PSU on DC-IN or VL: 330; HL, VH or HH pass	PSU on DC-IN or VL: 600; HL, VH or HH pass	PSU on DC-IN or VL: 900; HL, VH or HH pass	PSU on DC-IN or VL: 1250; HL, VH or HH pass
Supply voltage	V	12-18	12-18	12-18	12-18
Main features					
Dimensions	mm	140x109x31	180x109x31	220x109x50	260x109x50
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55

ATENA

SCD2 (DCSS) MULTISWITCHES



SCD2-5416WTA

WIDEBAND 5-INPUT SCD2 CASCADABLE series, ADJUSTABLE MULTI-OUTPUT

5-input SCD2 (dCSS) CASCADABLE MULTISWITCHESes, active and adjustable inputs with AGC and 4 or 8 taps. **Compatible with Wideband LNB**.

- **4 Satellite inputs and 1 TV input, 5 pass-through outputs and 4 or 8 user taps**, 4 SCR tuners and 12 SCD2 (dCSS) tuners simultaneously for each output
- Compatible with both traditional LNB (**UX-QT LTE**) and with **Wideband LNB (UX-WB LTE)** to distribute the **4 polarities of a satellite with just two cables**
- **Active and adjustable TV** input to mix the DTT and Satellite signals in distribution
- **Automatic Gain Control (AGC)**: maintains an adequate output signal (95dBµV) even when the input signal power varies
- **High satellite level and separate adjustment** for each output
- **Autodetection of operation mode** depending on the STB connected to the port; this allows you to switch from a Legacy STB to an SCR or SCD2 without performing any intervention on the system. The multiswitch automatically starts in **Legacy** mode and switches to **SCR or SCD2** mode as soon as it detects a DiSEqC command.
- **FVM Flexible Voltage Management** allows to power the multiswitch in different modes with no need to act on a dipswitch
- **PSU3001 or AMP2000 power supply not included** with DC inserter on F connector to power the LNB, the eventual head amplifier and the multiswitch when the decoder is unable to support the load of the tap.

ATTENA

		SCD2-5416WTA	SCD2-5816WTA
Code		271182	271181
Inputs		4 SAT, 1 TV	4 SAT, 1 TV
Taps		4 for 4 Legacy users, 16 SCR tuners or 64 SCD2 (dCSS) tuners	8 for 8 Legacy users, 32 SCR tuners or 128 SCD2 (dCSS) tuners
SAT			
Bandwidth	MHz	Quattro: 950-2150; Wideband 250-2400	Quattro: 950-2150; Wideband 250-2400
Automatic Gain Control	dBµV	55-90	60-90
Max output level (per Transponder)	dBµV	Legacy: 92, SCR/SCD2 (dCSS): 95	Legacy: 92, SCR/SCD2 (dCSS): 95
Gain adjustment	dB	12	12
Insertion loss	dB	-2.5	-3.5
SAT-SAT insulation	dB	>25	>25
TV			
Bandwidth	MHz	40-790	40-790
Gain	dB	3-5	3-5
Maximum output level (-35dBc 2 toni)	dBµV	107	105
Gain adjustment	dB	20	20
Insertion loss	dB	-2	-2
Tap			
SAT band	MHz	950-2150	950-2150
TV band	MHz	40-790	40-790
SCR frequencies	MHz	1210, 1420, 1680, 2040 (complies with the EN50494 standard) 985, 1050, 1115, 1275, 1340, 1485, 1550, 1615, 1745, 1810, 1875, 1940 (complies with the EN50607 standard)	
Power consumption			
Tap consumption	mA@13V	PSU on DC-IN or VL: 100; PSU on HL or VH: 420	PSU on DC-IN or VL: 100; PSU on HL or VH: 420
Current cons.	mA@13V	PSU on DC-IN or VL: 750; PSU on HL or VH: 120; HH pass	PSU on DC-IN or VL: 1400; PSU on HL or VH: 120; HH pass
Supply voltage	V	12-18	12-18
Main features			
Dimensions	mm	180x109x31	260x109x50
Operating temperature	°C	-10÷+55	-10÷+55

Multiswitches

SCD2 (DCSS) MULTISWITCHES

		SWI8504 dSCR UK	SWI8508 dSCR UK
Code		271178	271177
Inputs		4 SAT, 1 TV	4 SAT, 1 TV
Taps		4 for 4 Legacy users, 16 SCR tuners or 64 SCD2 (dCSS) tuners	8 for 8 Legacy users, 32 SCR tuners or 128 SCD2 (dCSS) tuners
SAT			
Bandwidth	MHz	Quattro: 950-2150; Wideband 250-2400	Quattro: 950-2150; Wideband 250-2400
Automatic Gain Control	dBµV	55-90	60-90
Max output level (per Transponder)	dBµV	Legacy: 92, SCR/SCD2 (dCSS): 95	Legacy: 92, SCR/SCD2 (dCSS): 95
Gain adjustment	dB	12	12
Insertion loss	dB	-2.5	-3.5
SAT-SAT insulation	dB	>25	>25
TV			
Bandwidth	MHz	40-790	40-790
Gain	dB	3-5	3-5
Maximum output level (-35dBc 2 toni)	dBµV	107	105
Gain adjustment	dB	20	20
Insertion loss	dB	-2	-2
Tap			
SAT band	MHz	950-2150	950-2150
TV band	MHz	40-790	40-790
SCR frequencies	MHz	980, 1030, 1080, 1130 MHz 1280, 1380, 1480, 1530 MHz 1580, 1630, 1680, 1730 MHz 1780, 1830, 1880, 1930 MHz (responding to SKY UK commands)	980, 1030, 1080, 1130 MHz 1280, 1380, 1480, 1530 MHz 1580, 1630, 1680, 1730 MHz 1780, 1830, 1880, 1930 MHz (responding to SKY UK commands)
Power consumption			
Tap consumption	mA@13V	PSU on DC-IN or VL: 100; PSU on HL or VH: 420	PSU on DC-IN or VL: 100; PSU on HL or VH: 420
Current cons.	mA@13V	PSU on DC-IN or VL: 750; PSU on HL or VH: 120; HH pass	PSU on DC-IN or VL: 1400; PSU on HL or VH: 120; HH pass
Supply voltage	V	12-18	12-18
Main features			
Dimensions	mm	180x109x31	260x109x50
Operating temperature	°C	-10÷+55	-10÷+55

SCD2 (DCSS) MULTISWITCHES



SCD2-32IF



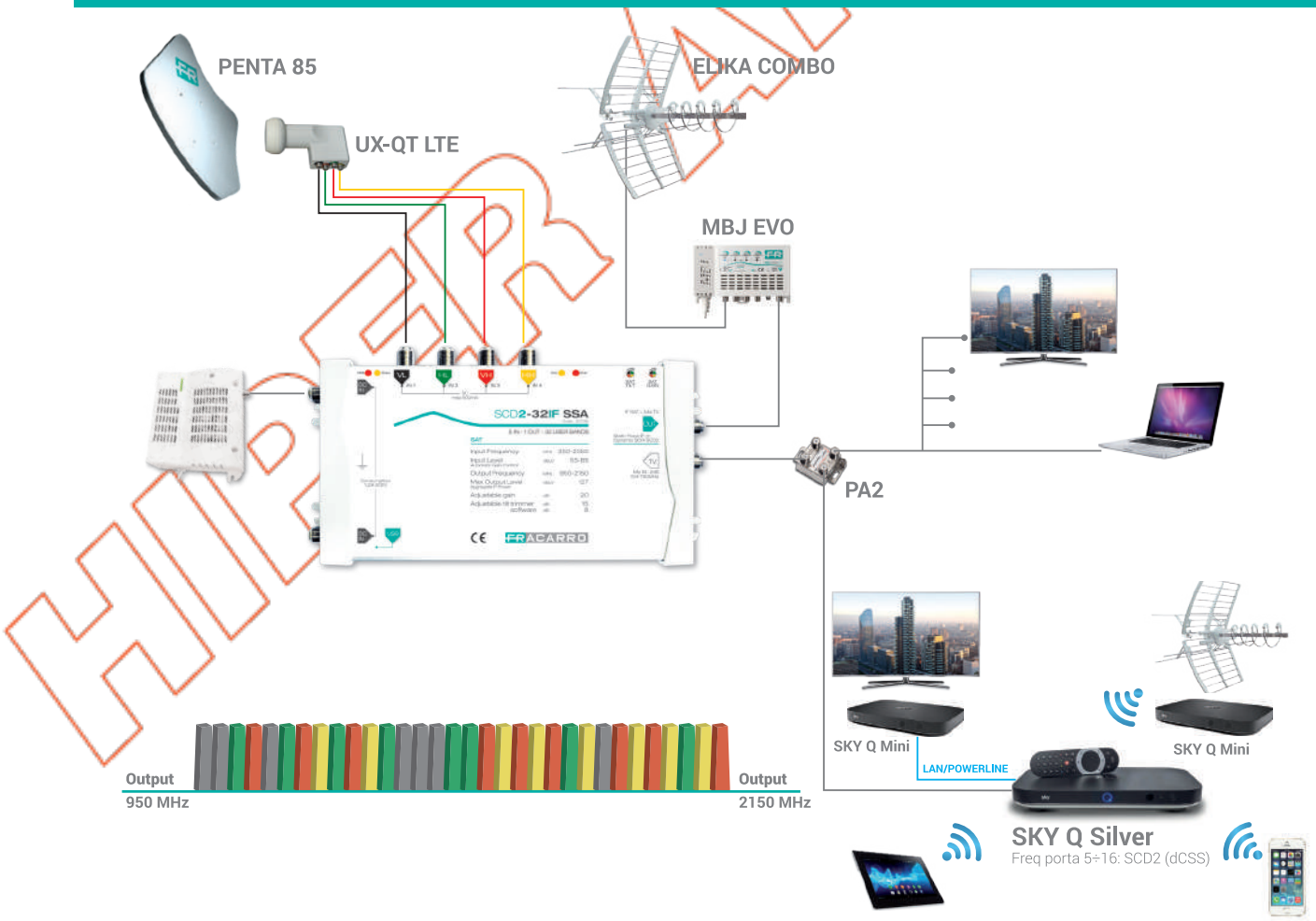
SCD2-32IF SSA

SCD2-32IF Series

SCD2 (dCSS) IF-IF Compact headends with 4 satellite inputs to convert up to 32 DVB-S/S2 transponders (selectable transponder bandwidth from 20 to 60MHz).

- **2 models, with or without power amplifier:**
- **SCD2-32IF**: 4 satellite inputs and **2 taps** with output level for each transponder **86dBµV**; sockets up to **90 meters** from the head-end can be used
- **SCD2-32IF SSA**: 4 Satellite inputs, **1 passive TV input** and **1 mixed tap** with: total satellite output level **127dBµV**; sockets up to **150 meters** from the head-end can be served; **satellite gain adjustment 20dB** and **satellite slope adjustment 15dB**
- **Automatic Gain Control (CAG)**: maintains an adequate output level even when the power of the input transponders varies (from 55dBµV to 85dBµV)
- Several satellite can be connected at the input or also **Wideband LNBs**
- **Monitoring LED**: USB connection, power status, remote feeding status.
- **Isofrequency set up**; the head-end can be used to perfectly equalize the transponder in one satellite polarity
- **Fixed mode** (IF-IF) or **Dynamic** the head-end can work also with DiSEqC commands if connetted to a SCD2 dCSS or SCR STBs
- **Selectable slope** signals can be positive sloped up to 8dB, (SCD2-32IF SSA has also a fix 15 dB slope) to recover the cable losses.
- **Double DC connection** for a redundant feeding.
- Compact dimensions, especially when compared with those of a IF-IF central with 32 programmable filters
- **PC set up software** through USB easy setup of input/output frequencies, and all the related parameters as signal levels, slope..

Installation example



FRACARRO ANTENNA

Multiswitches

SCD2 (DCSS) MULTISWITCHES

		SCD2-32IF	SCD2-32IF SSA
Code		271130	271138
Inputs		4 SAT	4 SAT, 1 TV
Taps		2 SAT	1 (SAT, TV)
SAT			
Bandwidth	MHz	250-2350	250-2350
Automatic Gain Control	dBµV	55-85	55-85
Gain adjustment	dB	-	20
Slope adj.	dB	-	15
Slope adj. per Transponder	dB	8 (via SW)	8 (via SW)
Maximum input level (-35dBc 2 tones)	dBµV	97	97
Maximum output level (-35dBc 2 toni)	dBµV	101	127
Max output level (per Transponder)	dBµV	86	112
Max output level (tone mode)	dBµV	81	107
SAT-SAT insulation	dB	>35	>35
TV			
Bandwidth	MHz	-	114-790
Insertion loss	dB	-	-2
TV-SAT insulation	dB	-	>25
Tap			
Output Transponders No.		32	32
Operating mode		Static IF-IF / SCR / SCD2 (dCSS)	Static IF-IF / SCR / SCD2 (dCSS)
SAT band	MHz	950-2150	950-2150
Transponder width	MHz	20-60	20-60
Frequency precision	kHz	< 50	< 50
Comunication satandards		DiSEqC-SCIF 1st and 2nd generation (SCD / SCD2) SCR (EN50494) and SCD2 (EN50607)	DiSEqC-SCIF 1st and 2nd generation (SCD / SCD2) SCR (EN50494) and SCD2 (EN50607)
Power consumption			
Supply voltage	V, Hz	220-240, 50-60	220-240, 50-60
Power status LED		2 with F connectors (the second is optional, it only serves to give greater strength to the piece feed)	2 with F connectors (the second is optional, it only serves to give greater strength to the piece feed)
Without LNB	mA, V	400, 12	600, 12
With LNB	mA, V	1100, 12	1200, 12
Max current on SAT Line	mA	601 @12V / 300 @18V (only on QD model)	601 @12V / 300 @18V (only on QD model)
Main features			
Dimensions	mm	160x110x30	200x110x30
PSU dimensions	mm	145x120x70	145x120x70
Operating temperature	°C	-10÷+55	-10÷+55

HEAD AMPLIFIERS

HEAD AMPLIFIERS Series



AMP9294

AMP9294

Head amplifier with **9 inputs** (8 Satellite and 1 passive TV).

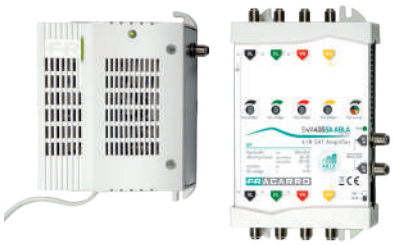
- **Gain adjustment** on each SAT input
- High output level
- Perfect for small and medium installations
- Standard colour coding for an easy installation

		AMP9294
Code		271032
Inputs		8 SAT, 1 TV
SAT		
Bandwidth	MHz	950-2150
Gain	dB	24
Gain adjustment	dB	15
Maximum output level (-35dBc 2 toni)	dBµV	112
TV		
Bandwidth	MHz	5-862
Insertion loss	dB	-1
Main features		
Maximum LNB current	mA	600
Supply voltage	V, Hz	220-240, 50-60
Dimensions	mm	320x125x65
Operating temperature	°C	-10÷+55

HIPER

HEAD AMPLIFIERS

HEAD AMPLIFIERS Series with A.B.L.A.

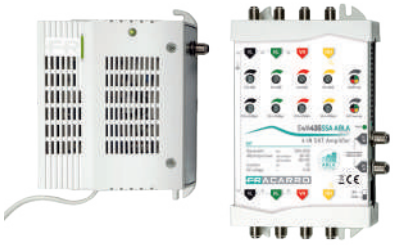


AMP435SA ABLA

AMP435SA ABLA

Head amplifier with **4 satellite inputs**

- High SAT Gain
- **Gain Adjustment**, or each satellite input with **fixed positive slope**
- High output level
- There is an **auxiliary F connector to insert an external power supply**
- Perfect for big and medium installations
- Standard colour coding for an easy installation



AMP435SSA ABLA

AMP435SSA ABLA

Head amplifier with **4 satellite inputs**

- High SAT Gain
- **Gain Adjustment, and slope** for each satellite input
- High output level
- There is an **auxiliary F connector to insert an external power supply**
- Perfect for big and medium installations
- Standard colour coding for an easy installation

		AMP435SA ABLA	AMP435SSA ABLA
Code		271173	271171
Inputs		4 SAT	4 SAT
SAT			
Bandwidth	MHz	950-2150	950-2150
Gain	dB	A.B.L.A. self-regulation 16-36	A.B.L.A. self-regulation 16-36
A.B.L.A. input level (overall power)	dBµV	It depends on the set output level 65-85 @101dBµV 85-105 @121dBµV	It depends on the set output level 65-85 @101dBµV 85-105 @121dBµV
Slope	dB	6	-
Slope adj.	dB	-	15
Output level adjustment (overall power)	dBµV	101-121	101-121
Return loss	dB	10	10
SAT-SAT insulation	dB	≥35	≥35
Main features			
Supply voltage		220-240V, 50-60Hz	220-240V, 50-60Hz
Current cons.	mA, V	550, 12	550, 12
Maximum LNB current	mA	900	900
Max current on SAT Line	mA	2000	2000
Dimensions	mm	160x110x30	160x110x30
PSU dimensions	mm	145x120x70	145x120x70
Operating temperature	°C	-10÷+55	-10÷+55

ANTENA

LINE AMPLIFIERS

2/4-INPUT LINE AMPLIFIERS Series



SWA5414

SWA5414

Head amplifier with **4 satellite inputs**.

- **Fixed 16dB gain with 4dB slope**
- High output level
- Perfect for small and medium installations
- Standard colour coding for an easy installation



SWA5122

SWA5122

2 inputs line amplifier (1 SAT and 1 TV)

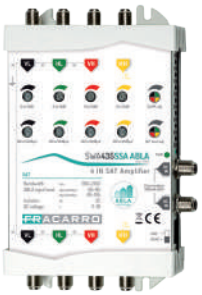
- Very high TV gain
- **Gain and slope adjustment** on TV input
- Return channel gain adjustment
- **Very high TV output level**
- It can be remotely fed through SAT line
- Suitable for medium and large systems or where there are long distances between multiswitches

ANTENA

		SWA5414	SWA5122
Code		271036	271035
Inputs		4 SAT	2 SAT, 1 TV
SAT			
Bandwidth	MHz	950-2150	950-2150
Gain	dB	16	-1
Slope	dB	4	-
Maximum output level (-35dBc 2 toni)	dBµV	108	-
TV			
Bandwidth	MHz	-	5-862
Gain	dB	-	30
Gain adjustment	dB	-	15
Slope adj.	dB	-	15
Maximum output level (-35dBc 2 toni)	dBµV	-	116
Return channel			
Bandwidth	MHz	-	5-65
Gain	dB	-	15
Gain adj.	dB	-	10
Maximum output level (-35dBc 2 toni)	dBµV	-	106
Main features			
Supply voltage	V	5-18	14-30 (on SAT lines)
Current cons.	mA, V	120, 14	400, 14
Dimensions	mm	90x90x21	198x108x31
Operating temperature	°C	-10÷+55	-10÷+55

LINE AMPLIFIERS - STANDARD AND WIDEBAND

4-INPUT LINE AMPLIFIERS Series WITH A.B.L.A.

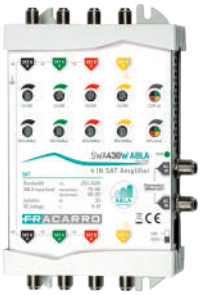


SWA435SSA ABLA

SWA435SSA ABLA

Line amplifier with **4 satellite inputs**

- **Gain and slope adjustment** for each satellite input
- High output level
- **Powered remotely through Satellite lines 1 (VL), 2 (HL) and 3 (VH)**
- DC pass on the HH Satellite line
- Perfect for big and medium installations
- Standard colour coding for an easy installation



SWA430W ABLA

SWA430W ABLA

Line amplifier with **4 satellite wideband inputs**

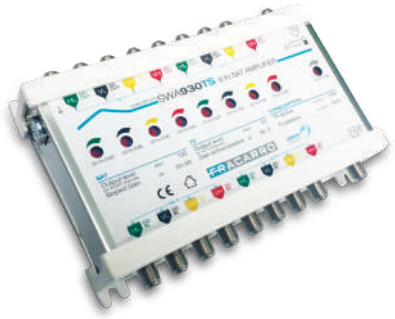
- **Gain and slope adjustment** for each satellite input
- High output level
- **Powered remotely through Satellite lines 1 (SatA V), 2 (SatA H) and 3 (SatB V)**
- DC pass on the SatB H Satellite line
- Perfect for big and medium installations
- Standard colour coding for an easy installation

NTENA

		SWA435SSA ABLA	SWA430W ABLA
Code		271172	271185
Inputs		4 SAT	4 SAT
SAT			
Bandwidth	MHz	950-2150	250-2400
Gain	dB	A.B.L.A. self-regulation 16-36	A.B.L.A. self-regulation 10-30
A.B.L.A. input level (overall power)	dBµV	It depends on the set output level 65-85 @101dBµV 85-105 @121dBµV	It depends on the set output level 70-90 @100dBµV 90-110 @120dBµV
Slope	dB	-	-
Slope adj.	dB	15	15
Output level adjustment (overall power)	dBµV	101-121	100-120
Return loss	dB	10	10
SAT-SAT insulation	dB	≥35	≥30
Main features			
Supply voltage		11-19V	11-19V
Current cons.	mA, V	550, 12	500, 12
Maximum LNB current	mA	900	900
Max current on SAT Line	mA	2000	2000
Dimensions	mm	160x110x30	160x110x30
PSU dimensions	mm	Not included	Not included
Operating temperature	°C	-10÷+55	-10÷+55

LINE AMPLIFIERS

9/17 LINE AMPLIFIERS Series



SWA930TS

SWA930TS

Head amplifier with **9 inputs** (8 Satellite and 1 passive TV)

- High SAT Gain
- **Active or passive TV** selectable via dip switch
- **Gain adjustment** on each SAT and terrestrial input
- Satellite band up to 2300MHz
- High output level
- **Trunk line power supply** or from female **jack connector** (PSU1315TS)
- Perfect for small and medium installations
- Compact dimensions
- Standard colour coding for an easy installation



SWA1730TS

SWA1730TS

Head amplifier with **17 inputs** (16 Satellite and 1 passive TV)

- High SAT Gain
- **Active or passive TV** selectable via dip switch
- **Gain adjustment** on each SAT and terrestrial input
- Satellite band up to 2300MHz
- High output level
- **Trunk line power supply** or from female **jack connector** (PSU1340TS)
- Perfect for small and medium installations
- Compact dimensions
- Standard colour coding for an easy installation

ANTENA

		SWA930TS	SWA1730TS
Code		287373	287374
Inputs		8 SAT, 1 TV	16 SAT, 1 TV
SAT			
Bandwidth	MHz	950-2300	950-2300
Gain	dB	30	30
Gain adjustment	dB	20	20
Maximum output level (-35dBc 2 toni)	dBµV	112	112
TV			
Bandwidth	MHz	5-862 passive Active: 47-862	5-862 passive Active: 47-862
Active gain	dB	18	18
Passive gain	dB	-2	-2
Gain adjustment	dB	20	20
Maximum output level (-35dBc 2 toni)	dBµV	ActiveTV: 110	ActiveTV: 110
Main features			
Supply voltage	V	13-14	13-14
Current cons.	mA, V	Passive TV: 1000, 13 ActiveTV:1150, 13	Passive TV: 2000, 13 ActiveTV:2150, 13
Dimensions	mm	170x120x40	290x120x40
Operating temperature	°C	-10÷+55	-10÷+55

POWER SUPPLY UNITS

POWER SUPPLY UNIT Series



AMP2000/UK AMP2000

AMP2000/UK

AMP2000

Power supply unit **14V 2A** with current injector with F connector

- **Removable plug**, available accessories **CVMS-EU** standard European plug.
- Available with both european or UK mains plug.
- Class II insulation



PSU3001

PSU3001/UK

PSU3001

Power supply unit **18V 3A** with **2 balanced DC inserters** (maximum 1.5A each) on F connector

- Available with both european or UK mains plug.
- With the **PC8338** adapter you can convert the European plug into the UK plug
- Class II Insulation,



PSU1214

PSU1214

Power supply unit **12V 1.4A** with f connector

- Using **PC8338** the plug can be converted into UK version.
- Class II insulation

ANTENNA

		AMP2000/UK	AMP2000	PSU3001/UK	PSU3001	PSU1214
Code		271140	271139	271159	271160	271158
Inputs		1	1	2	2	-
Outputs		1	1	2	2	-
Bandwidth	MHz	5-2400	5-2400	5-2400	5-2400	-
Insertion loss	dB	-1.5	-1.5	-1.5	-1.5	-
Supply voltage	V, Hz	220-240, 50-60	220-240, 50-60	220-240, 50-60	220-240, 50-60	100-240, 50-60
Mains plug		UK	Eu	UK	Eu	Eu
Insulation class		II	II	II	II	II
Output voltage	V	14	14	18	18	12
Max output current	mA	2000	2000	1500x2	1500x2	1400
Output connector		F	F	F x2	F x2	F
Output polarity		Inner positive, outer negative	Inner positive, outer negative	Inner positive, outer negative	Inner positive, outer negative	Inner positive, outer negative
Dimensions	mm	185x100x60	185x100x60	165x63x107	165x63x107	145x120x70
Operating temperature	°C	-10÷+55	-10÷+55	-10÷+55	-10÷+55	-10÷+55

POWER SUPPLY UNITS

POWER SUPPLY UNIT Series



SPS1750

SPS1750

Power supply unit **15V 1A** with **F connector** current injector

- Low insertion loss
- Wide band TV and Satellite **(100MHz - 2400MHz)**
- Using **PC8338** the plug can be converted into the UK version.
- Class II insulation
- Compact dimensions



PSU1506

PSU1506

Power supply unit **15V 0.6A** with **F connector**

- Using **PC8338** the plug can be converted into the UK version.
- Class II insulation
- Compact dimensions



DC-INS

DC-INS

current injector max current 450mA, it can work both with SCR (190mA) or SCD2 dCSS (350mA)

- Low insertion loss
- Wideband TV and Satellite **(100MHz - 2400MHz)**
- Low voltage drop
- Compact dimensions



PSU1215FA

PSU1215FA

Power supply unit **12V 1.5A** with **F connector**

- **adapter** for Europa, South America, Asia (**type C**), UK, Ireland, Malta, Malesia Singapore (**type G**) USA, Canada, Mexico and Japan (**type A**), Australia, New Zeland, China, Argentina (**type I**) **included**
- Class II insulation
- Compact dimensions

	SPS1750	PSU1215FA	PSU1506	DC-INS
Code	289087	287551	287155	271126
Inputs	1	-	-	1 SAT, TV
Outputs	1	-	-	1 SAT, TV
Bandwidth	40-2150	-	-	100-2400
Insertion loss	-1	-	-	-1
Supply voltage	220-240, 50-60	100-240, 50-60	220-240, 50-60	-
Mains plug	Eu	with adapters	Eu	-
Insulation class	II	II	II	-
Output voltage	15	12	15	-
Max output current	1000	1500	600	450
Output connector	F	F	F	F x3
Output polarity	Inner positive, outer negative	Inner positive, outer negative	Inner positive, outer negative	-
Dimensions	40x70x90	78x48x35	46x66x90	48x50x22
Operating temperature	-10÷+55	0÷45	-10÷+55	-10÷+55

FRACARRO ANTENNA

POWER SUPPLY UINITS

POWER SUPPLY UNIT Series



PSU1315TS

PSU1315TS

Power supply unit **13V 1.5A** with **male Jack** current injector (2,5x5,5x12; inner positive, outer negative)

- Using **PC8338** the plug can be converted into the UK version.
- Class II insulation
- Compact dimensions



PSU1340TS

PSU1340TS

Power supply unit **13V 4A** with **male Jack** current injector (2,5x5,5x12; inner positive, outer negative)

- **Removable plug**, available accessories **CVMS-EU** standard European plug
- Using **PC8338** the plug can be converted into the UK version.
- Class II insulation
- Compact dimensions

		PSU1315TS	PSU1340TS
Code		287375	287376
Supply voltage	V, Hz	220-240, 50-60	220-240, 50-60
Mains plug		Eu	Eu
Insulation class		II	II
Output voltage	V	12	13
Max output current	mA	1500	4000
Output connector		M-Type Jack 2.1x5,5x12	M-Type Jack 2.1x5,5x12
Output polarity		Inner positive, outer negative	Inner positive, outer negative
Dimensions	mm	90x70x45	110x52x34
Operating temperature	°C	0÷40	0÷40

HIPER TENA

MULTISWITCH ACCESSORIES

TAPS AND SPLITTERS Series

5-input passive Taps and splitter for the multiswitch line

		SWI85SPL2	SWI85T15
Code		271096	271095
Inputs		4 SAT, 1 TV, 1 DC	4 SAT, 1 TV
Outputs		4 SAT, 1 TV	4 SAT, 1 TV
Taps		4 SAT, 1 TV	4 SAT, 1 TV, 1 DC
SAT			
Bandwidth	MHz	950-2150	950-2150
Insertion loss	dB	-4.5	-2
Tap loss	dB	-	-13
SAT-SAT insulation	dB	≥30	≥30
TV			
Bandwidth	MHz	5-862	5-862
Insertion loss	dB	-4.5	-2
Tap loss	dB	-	-13
Main features			
Dimensions	mm	160x118x30	160x118x30
Operating temperature	°C	-10÷+55	-10÷+55



SWI85SPL2



SWI85T15

HIPER ANTENNA

MULTISWITCH ACCESSORIES

MULTISWITCH ACCESSORIES Series

Connector for multiswitches

Item	Code	Description	Pcs
CVMS_EU	280005	Electric cable with European plug for use with SW195 ... /UK switches and AMP2000/UK power supplies. Cable length 1.6m, available in single or 10-piece packaging.	1
PC8338	287398	EU/UK converter	1



PC8338



SCP3

Distribution

CLAMP

PAM SPLITTER Series 112

DEM TAPS Series 112

CLAMP

CAD S SPLITTER Series 113

F CONNECTORS

PA VERTICAL SPLITTER Series 115

DE VERTICAL TAPS Series 115

SPTR HORIZONTAL SPLITTER Series 117

TAPS HORIZONTAL Series 118

TV-SAT WALLOUTLET

SPI and IEC WALLOUTLET Series 120

SPF F CONNECTORS OUTLETS Series 121

PDM DEMIX OUTLET Series 121

OUTLET ADAPTORS

OUTLET ADAPTORS Series 122

WALLMOUNT TV SAT OUTLET

PAS00 TV/SAT ROUND OUTLET Series 123

CABLE CONNECTOR

IEC CONNECTOR Series 124

F CONNECTOR Series 124

CONNECTOR ACCESSORIES

75OHMHM LOADS Series 125

ADAPTER Series 125

COAXIAL CABLES

INDOOR USE CABLES Series 126

OUTDOOR CABLES Series 127

UTP CAT5 CABLES FOR INDOOR USE Series 128

UTP CAT6 CABLES FOR INDOOR USE Series 128

UTP CAT5 and CAT6 CABLES FOR OUTDOOR USE Series 128

HIPER ANTENA

CLAMPS

PAM SPLITTER Series

Clamp splitters of the PAM series in the TV and Satellite band (**5-2400MHz**).

Thanks to the **exclusive fixing spring clamp**, the central connector remains integral with the rest of the mechanics, facilitating the fixing of the cable.

The new mechanics with **very small dimensions** and the clamp solution, without F connector, significantly reduce the installation footprint.

The excellent shielding guarantees the protection of the signal from LTE disturbances in the air.

Item		PA2M	PA3M	PA4M	PA5M
Code		287456	287457	287458	287459
Outputs		2	3	4	5
Insertion loss (dB)	RC 5-40 MHz	4	6,6	8,1	10,6
	TV 47-862 MHz	4,3	7,2	8,7	11,2
	SAT 950-1750 MHz	5,1	8,1	9,6	12,7
	SAT 1750-2150 MHz	5,8	8,5	10,5	13,5
	SAT 2150-2400 MHz	6,8	10,5	11,5	16,5
Outputs insulation (dB)	RC 5-40 MHz	21	21	21	21
	TV 47-862 MHz	21	21	21	21
	SAT 950-1750 MHz	21	21	21	21
	SAT 1750-2150 MHz	21	21	21	21
	SAT 2150-2400 MHz	20	20	20	20

DEM TAPS Series

Clamp taps of the DEM series in the TV and Satellite band (**5-2400MHz**).

Thanks to the **exclusive fixing spring clamp**, the central connector remains integral with the rest of the mechanics, facilitating the fixing of the cable.

The new mechanics with **very small dimensions** and the clamp solution, without F connector, significantly reduce the installation footprint.

The excellent shielding guarantees the protection of the signal from LTE disturbances in the air.



DE210M



PA4M

Item		DE110M	DE114M	DE118M	DE122M	DE210M	DE214M
Code		287460	287461	287462	287463	287464	287465
Taps		1	1	1	1	2	2
Insertion loss (dB)	RC 5-40 MHz	1,6	1,2	1	1	3,5	2
	TV 47-862 MHz	1,7	1,3	1,1	1,1	3,5	2,4
	SAT 950-1750 MHz	2	1,8	1,3	1,3	4,5	3
	SAT 1750-2150 MHz	2,5	2	1,5	1,5	5	3,2
	SAT 2150-2400 MHz	3	2,8	2,2	2,2	5,5	3,5
Tap loss (dB)	RC 5-40 MHz	10	14	18	22	10	14
	TV 47-862 MHz	10	14	18	22	10	14
	SAT 950-1750 MHz	10,5	14,5	18,5	22,5	10,5	14,5
	SAT 1750-2150 MHz	11	15	19	23	11	15
	SAT 2150-2400 MHz	11,5	15,5	19,5	23,5	11,5	15,5
Outputs insulation (dB)	RC 5-40 MHz	20	20	20	20	20	20
	TV 47-862 MHz	20	20	20	20	20	20
	SAT 950-1750 MHz	20	20	20	20	20	20
	SAT 1750-2150 MHz	20	20	20	20	20	20
	SAT 2150-2400 MHz	20	20	20	20	20	20

Item		DE218M	DE222M	DE412M	DE414M	DE418M	DE422M
Code		287466	287467	287468	287469	287470	287471
Taps		2	2	4	4	4	4
Insertion loss (dB)	RC 5-40 MHz	1,5	1	4,2	3	2	1
	TV 47-862 MHz	1,7	1,3	4,3	4	2,2	1,5
	SAT 950-1750 MHz	2,1	2	4,5	4,5	3	1,6
	SAT 1750-2150 MHz	2,2	2,2	5	5	3,2	1,8
	SAT 2150-2400 MHz	2,5	2,4	5,5	5,5	3,5	2
Tap loss (dB)	RC 5-40 MHz	18	22	11,5	14	18	22
	TV 47-862 MHz	18	22	11,5	14	18	22
	SAT 950-1750 MHz	18,5	22,5	12	14,5	18,5	22,5
	SAT 1750-2150 MHz	19	23	12,5	15	19	23
	SAT 2150-2400 MHz	19,5	23,5	13,5	15,5	19,5	23,5
Outputs insulation (dB)	RC 5-40 MHz	20	20	20	20	20	20
	TV 47-862 MHz	20	20	20	20	20	20
	SAT 950-1750 MHz	20	20	20	20	20	20
	SAT 1750-2150 MHz	20	20	20	20	20	20
	SAT 2150-2400 MHz	20	20	20	20	20	20

Distribution

CLAMPS

CAD-S SPLITTER Series

CAD-S series clamp splitters in TV and Satellite band (**5-2400MHz**)

- Excellent **class A shielding** and a perfect 75 ohm impedance.
- They are the only broadband models with a **clamp dedicated to each cable** to use cables of different diameters on adjacent ports
- Operating functions are **patented by Fracarro** to carry out a quick and easy installation.



PP2



PP4

Item		PP2	PP3	PP4	PP5
Code		220802	220803	220804	220805
Outputs		2	3	4	5
Insertion loss (dB)	RC 5-40 MHz	4	6,5	9,5	11
	TV 47-862 MHz	4	6,5	9,5	11
	SAT 950-1750 MHz	4,5	6,5	10	11,5
	SAT 1750-2150 MHz	5	7	10,5	12
	SAT 2150-2400 MHz	5,5	8	11	13
Outputs insulation (dB)	RC 5-40 MHz	25	20	20	20
	TV 47-862 MHz	22	20	25	25
	SAT 950-1750 MHz	20	20	25	25
	SAT 1750-2150 MHz	20	20	20	22
	SAT 2150-2400 MHz	18	18	18	18

Item		CD1-10	CD1-14	CD1-18	CD1-22
Code		220810	220814	220818	220822
Taps		1	1	1	1
Insertion loss (dB)	RC 5-40 MHz	1,8	0,8	0,8	0,8
	TV 47-862 MHz	1,6	0,8	0,8	0,8
	SAT 950-1750 MHz	2	1,3	1,3	1,3
	SAT 1750-2150 MHz	2,3	1,5	1,5	1,5
	SAT 2150-2400 MHz	2,6	2	2	2
Tap loss (dB)	RC 5-40 MHz	10	14,5	18	22
	TV 47-862 MHz	10	14,5	18	22
	SAT 950-1750 MHz	10	14,5	17,5	21,5
	SAT 1750-2150 MHz	10	14,5	18	22
	SAT 2150-2400 MHz	10	14	18	22
Outputs insulation (dB)	RC 5-40 MHz	28	30	32	36
	TV 47-862 MHz	30	33	35	40
	SAT 950-1750 MHz	30	25	30	35
	SAT 1750-2150 MHz	28	25	27	30
	SAT 2150-2400 MHz	32	24	24	27

HIPER

CLAMPS



CD2-10

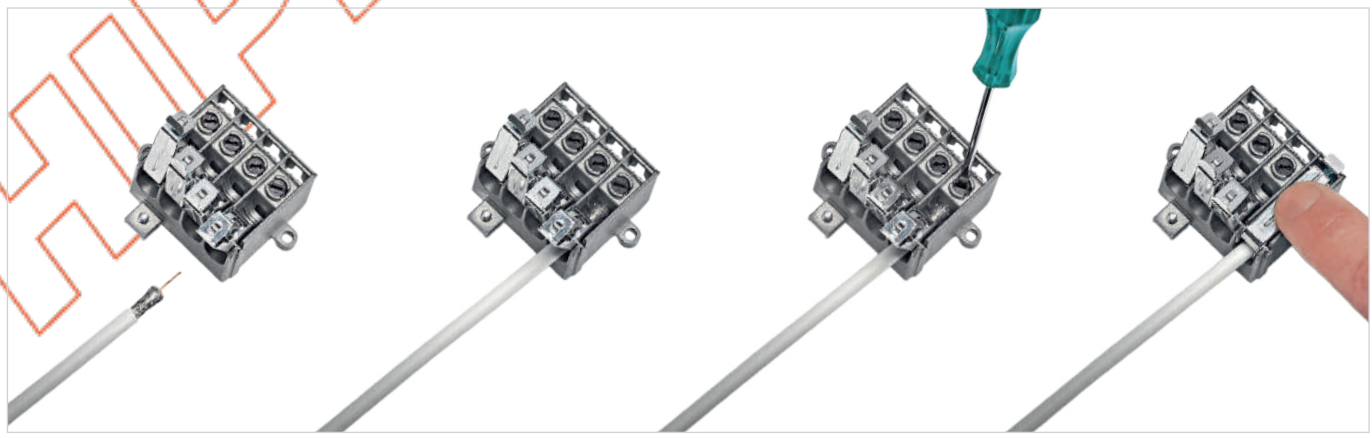


CD4-12



Item		CD2-10	CD2-14	CD2-18	CD2-22
Code		220830	220834	220838	220842
Taps		2	2	2	2
Insertion loss (dB)	RC 5-40 MHz	3,5	1,6	1,6	1,6
	TV 47-862 MHz	3	1,5	1,5	1,5
	SAT 950-1750 MHz	3,3	2,5	2,5	2,5
	SAT 1750-2150 MHz	4,2	2,7	2,7	2,7
	SAT 2150-2400 MHz	4,7	3,5	3,5	3,5
Tap loss (dB)	RC 5-40 MHz	11	15	18	22
	TV 47-862 MHz	10	15	18	22
	SAT 950-1750 MHz	10,5	14,5	18	22
	SAT 1750-2150 MHz	10,5	14,5	18	22
	SAT 2150-2400 MHz	11	14,5	18	22
Outputs insulation (dB)	RC 5-40 MHz	25	30	32	35
	TV 47-862 MHz	28	35	37	40
	SAT 950-1750 MHz	23	25	28	32
	SAT 1750-2150 MHz	20	23	26	30
	SAT 2150-2400 MHz	18	23	26	30

Item		CD4-12	CD4-14	CD4-18
Code		220852	220854	220858
Taps		4	4	4
Insertion loss (dB)	RC 5-40 MHz	4	3,5	1,6
	TV 47-862 MHz	3,7	3,3	1,5
	SAT 950-1750 MHz	4,5	3,7	2,5
	SAT 1750-2150 MHz	5,5	4,5	3,5
	SAT 2150-2400 MHz	6,5	5	4
Tap loss (dB)	RC 5-40 MHz	13	14	19
	TV 47-862 MHz	12	14	18
	SAT 950-1750 MHz	12	14,5	18
	SAT 1750-2150 MHz	12,5	14,5	18
	SAT 2150-2400 MHz	13	14,5	18
Outputs insulation (dB)	RC 5-40 MHz	27	30	33
	TV 47-862 MHz	27	30	35
	SAT 950-1750 MHz	27	30	33
	SAT 1750-2150 MHz	25	25	30
	SAT 2150-2400 MHz	25	25	25



Distribution

F CONNECTOR

PA VERTICAL SPLITTER Series

F-connector **vertical splitter** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Die-cast and nickel-plated**, ensure high performance, with very low insertion losses, a high return loss and insulation
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between outputs to input.**

Item		PA2	PA3	PA4	PA6	PA8
Code		280701	280703	280702	280704	280705
Outputs		2	3	4	6	8
Insertion loss (dB)	RC 5-40 MHz	4	7	7,5	10,5	12
	TV 47-862 MHz	4	8	8,5	11	12,5
	SAT 950-1750 MHz	5,5	10	11	13,5	15,5
	SAT 1750-2150 MHz	5,5	10,5	11,5	14,5	16,5
	SAT 2150-2400 MHz	6	11	12	16	17
Outputs insulation (dB)	RC 5-40 MHz	22	22	30	22	20
	TV 47-862 MHz	21	22	28	22	20
	SAT 950-1750 MHz	20	22	26	22	20
	SAT 1750-2150 MHz	20	22	22	22	20
	SAT 2150-2400 MHz	23	22	22	22	20



PA2



PA4

F CONNECTOR

DE VERTICAL TAPS Series

F-connector **vertical taps** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Die-cast and nickel-plated**, ensure high performance, with very low insertion losses, a high return loss and insulation
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between trunk line to input.**

Item		DE1-10	DE1-14	DE1-18	DE1-22
Code		280710	280711	280712	280713
Taps		1	1	1	1
Insertion loss (dB)	RC 5-40 MHz	1,5	1	0,8	0,6
	TV 47-862 MHz	1,3	0,8	0,7	0,5
	SAT 950-1750 MHz	1,6	1,2	0,9	0,8
	SAT 1750-2150 MHz	2	1,3	1	1
	SAT 2150-2400 MHz	2	1,5	1,3	1,7
Tap loss (dB)	RC 5-40 MHz	10,5	14	18,5	22
	TV 47-862 MHz	10,5	14	18,5	22
	SAT 950-1750 MHz	11	14	18,5	22
	SAT 1750-2150 MHz	11	14	18,5	22
	SAT 2150-2400 MHz	11	14	18,5	22
Outputs insulation (dB)	RC 5-40 MHz	40	32	45	50
	TV 47-862 MHz	34	29	34	36
	SAT 950-1750 MHz	27	28	31	33
	SAT 1750-2150 MHz	24	30	27	31
	SAT 2150-2400 MHz	24	25	22	27



DE1-14

F CONNECTOR

DE VERTICAL TAPS Series

F-connector **vertical taps** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Die-cast and nickel-plated**, ensure high performance, with very low insertion losses, a high return loss and insulation
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between trunk line to input.**



DE2-14



DE4-14

Item		DE2-10	DE2-14	DE2-18	DE2-22
Code		280714	280715	280716	280717
Taps		2	2	2	2
Insertion loss (dB)	RC 5-40 MHz	2,5	1,5	1,2	1,2
	TV 47-862 MHz	2,5	1,5	1,2	1,1
	SAT 950-1750 MHz	2,5	1,8	1,5	1,5
	SAT 1750-2150 MHz	2,8	2	1,8	1,8
	SAT 2150-2400 MHz	3,5	2,2	2	2,2
Tap loss (dB)	RC 5-40 MHz	10	14	18	22
	TV 47-862 MHz	10	14	18	22
	SAT 950-1750 MHz	10	14	18	22
	SAT 1750-2150 MHz	10	11	18	22
	SAT 2150-2400 MHz	10	11,5	19	22
Outputs insulation (dB)	RC 5-40 MHz	25	35	45	45
	TV 47-862 MHz	28	27	33	38
	SAT 950-1750 MHz	25	25	27	31
	SAT 1750-2150 MHz	25	23	27	27
	SAT 2150-2400 MHz	23	23	25	27

Item		DE4-12	DE4-14	DE4-18	DE4-22
Code		280718	280719	280720	280721
Taps		4	4	4	4
Insertion loss (dB)	RC 5-40 MHz	3,5	2,5	1,5	1
	TV 47-862 MHz	3,9	2,4	1,3	1
	SAT 950-1750 MHz	5,1	3	1,5	1,2
	SAT 1750-2150 MHz	5,2	3,5	1,8	1,5
	SAT 2150-2400 MHz	5,4	4	2	1,5
Tap loss (dB)	RC 5-40 MHz	11,5	14,5	18	21,5
	TV 47-862 MHz	11,5	13,8	18	21,8
	SAT 950-1750 MHz	13	14	18,5	22,5
	SAT 1750-2150 MHz	14	14,5	19	23
	SAT 2150-2400 MHz	15,5	15	19	24
Outputs insulation (dB)	RC 5-40 MHz	35	32	45	38
	TV 47-862 MHz	33	34	45	35
	SAT 950-1750 MHz	28	30	35	31
	SAT 1750-2150 MHz	28	27	30	27
	SAT 2150-2400 MHz	28	30	30	26

Distribution

F CONNECTOR

DE VERTICAL TAPS Series

F-connector **vertical taps** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Die-cast and nickel-plated**, ensure high performance, with very low insertion losses, a high return loss and insulation
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between trunk line to input.**



DE6-16

Item		DE6-16	DE6-20	DE8-16	DE8-20
Code		280722	280723	280725	280726
Taps		6	6	8	8
Insertion loss (dB)	RC 5-40 MHz	4,5	2,5	4,5	2,5
	TV 47-862 MHz	5	3	5	3
	SAT 950-1750 MHz	5,5	4	5,5	4,5
	SAT 1750-2150 MHz	5,5	4,5	5,5	5
	SAT 2150-2400 MHz	5,5	5,5	5,5	5,5
Tap loss (dB)	RC 5-40 MHz	14	19	14	19
	TV 47-862 MHz	14	19	15	19
	SAT 950-1750 MHz	15	19,5	16,5	19
	SAT 1750-2150 MHz	16,5	20	18	19
	SAT 2150-2400 MHz	18	20	19,5	20
Outputs insulation (dB)	RC 5-40 MHz	25	30	30	30
	TV 47-862 MHz	22	24	25	23
	SAT 950-1750 MHz	22	22	25	20
	SAT 1750-2150 MHz	22	22	25	20
	SAT 2150-2400 MHz	22	22	25	20

F CONNECTOR

SPTR HORIZONTAL SPLITTER Series

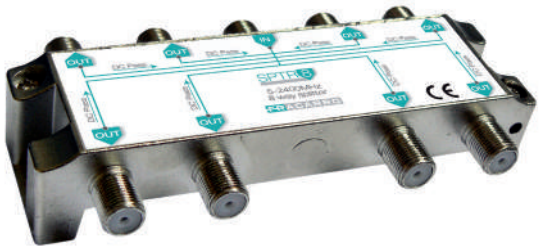
F-connector **"top-down" horizontal splitter** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Nickel plated die cast housing**, assuress high performances with low losses, high return loss and high outputs insulation.
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between outputs to input.**

Item		SPTR2	SPTR3	SPTR4	SPTR6	SPTR8
Code		287305	287307	287306	287308	287309
Outputs		2	3	4	6	8
Insertion loss (dB)	RC 5-40 MHz	3,5	7	6	10	11
	TV 47-862 MHz	4	8	7	11	12,5
	SAT 950-1750 MHz	4	8	7	11,5	12,5
	SAT 1750-2150 MHz	5	9,5	9	14,5	15,5
	SAT 2150-2400 MHz	5.5	10	9,5	16	16
Outputs insulation (dB)	RC 5-40 MHz	27,5	20	25	27,5	27,5
	TV 47-862 MHz	20	20	20	25	25
	SAT 950-1750 MHz	20	20	20	25	25
	SAT 1750-2150 MHz	18	18	20	25	25
	SAT 2150-2400 MHz	18	18	18	25	25



SPTR2



SPTR8

HYPER ANTENNA

F CONNECTOR

TAPS HORIZONTAL Series

F-connector **"top-down" horizontal taps** for TV and Satellite band (**5-2400MHz**)

- The design and the small dimensions allow the installation in any wallbox.
- **Nickel plated die cast housing**, assures high performances with low losses, high return loss and high outputs insulation.
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between trunk line to input.**



TAPS110



TAPS212

Item		TAPS110	TAPS115	TAPS120
Code		287310	287311	287312
Taps		1	1	1
Insertion loss (dB)	RC 5-40 MHz	2	1.5	1
	TV 47-862 MHz	2	1.5	1
	SAT 950-1750 MHz	2.5	2	1.5
	SAT 1750-2150 MHz	3	2.5	2
	SAT 2150-2400 MHz	3.5	3	2.5
Tap loss (dB)	RC 5-40 MHz	10	15	20
	TV 47-862 MHz	10	15	20
	SAT 950-1750 MHz	10	15	20
	SAT 1750-2150 MHz	10	15	20
	SAT 2150-2400 MHz	10	15	20
Outputs insulation (dB)	RC 5-40 MHz	28	35	39
	TV 47-862 MHz	24	26	29
	SAT 950-1750 MHz	23	25	25
	SAT 1750-2150 MHz	22	23	25
	SAT 2150-2400 MHz	22	23	25

Item		TAPS212	TAPS215	TAPS220
Code		287313	287314	287315
Taps		2	2	2
Insertion loss (dB)	RC 5-40 MHz	3	2	1.5
	TV 47-862 MHz	3	2.5	2
	SAT 950-1750 MHz	3.5	3.5	3
	SAT 1750-2150 MHz	4	3.5	3
	SAT 2150-2400 MHz	5	4	4
Tap loss (dB)	RC 5-40 MHz	12	15	20
	TV 47-862 MHz	12	15	20
	SAT 950-1750 MHz	12	15	20
	SAT 1750-2150 MHz	12	15	20
	SAT 2150-2400 MHz	12	15	20
Outputs insulation (dB)	RC 5-40 MHz	25	30	33
	TV 47-862 MHz	25	30	30
	SAT 950-1750 MHz	25	27	28
	SAT 1750-2150 MHz	22	25	28
	SAT 2150-2400 MHz	21	25	25

HIPE

Distribution

F CONNECTOR

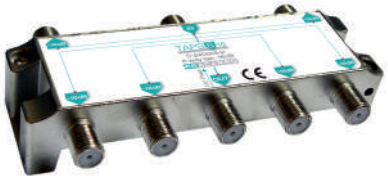
TAPS HORIZONTAL Series

F-connector **"top-down" horizontal taps** for TV and Satellite band (**5-2400MHz**)

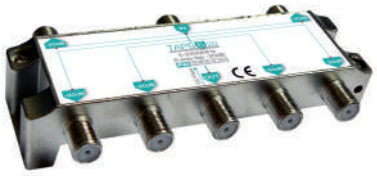
- The design and the small dimensions allow the installation in any wallbox.
- **Nickel plated die cast housing**, assuress high performances with low losses, high return loss and high outputs insulation.
- Built-in earth bounding screw and wallmount fixings
- **DC passthrough between trunk line to input.**



TAPS420



TAPS616

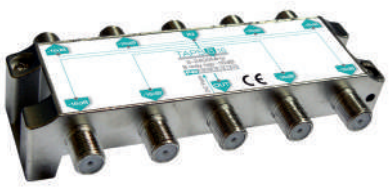


TAPS620

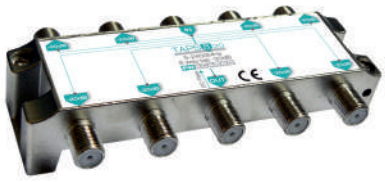
Item		TAPS412	TAPS415	TAPS420
Code		287316	287317	287318
Taps		4	4	4
Insertion loss (dB)	RC 5-40 MHz	2.5	2.5	2
	TV 47-862 MHz	3	2.5	2
	SAT 950-1750 MHz	3	2.5	2
	SAT 1750-2150 MHz	3.5	3	3
	SAT 2150-2400 MHz	4	4	3.5
Tap loss (dB)	RC 5-40 MHz	12	15	20
	TV 47-862 MHz	12	15	20
	SAT 950-1750 MHz	12	15	20
	SAT 1750-2150 MHz	12	15	20
	SAT 2150-2400 MHz	12	15	20
Outputs insulation (dB)	RC 5-40 MHz	28	30	33
	TV 47-862 MHz	24	25	28
	SAT 950-1750 MHz	23	24	26
	SAT 1750-2150 MHz	22	23	24
	SAT 2150-2400 MHz	22	22	23

Item		TAPS616	TAPS620
Code		287319	287320
Taps		6	6
Insertion loss (dB)	RC 5-40 MHz	4	2.5
	TV 47-862 MHz	4.5	2.5
	SAT 950-1750 MHz	5	3
	SAT 1750-2150 MHz	5.5	4.5
	SAT 2150-2400 MHz	7	5.5
Tap loss (dB)	RC 5-40 MHz	16	20
	TV 47-862 MHz	16	20
	SAT 950-1750 MHz	16	20
	SAT 1750-2150 MHz	16	20
	SAT 2150-2400 MHz	16	20
Outputs insulation (dB)	RC 5-40 MHz	25	24
	TV 47-862 MHz	25	24
	SAT 950-1750 MHz	24	24
	SAT 1750-2150 MHz	22	22
	SAT 2150-2400 MHz	21	21

F CONNECTOR



TAPS816



TAPS820

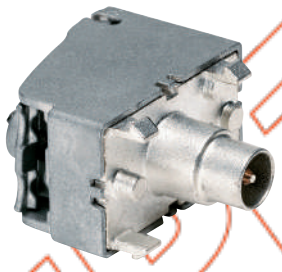
Item		TAPS816	TAPS820
Code		287321	287322
Taps		8	8
Insertion loss (dB)	RC 5-40 MHz	4.5	2.5
	TV 47-862 MHz	5	3
	SAT 950-1750 MHz	5.5	3
	SAT 1750-2150 MHz	5.5	4.5
	SAT 2150-2400 MHz	7	5.5
Tap loss (dB)	RC 5-40 MHz	16	20
	TV 47-862 MHz	16	20
	SAT 950-1750 MHz	16	20
	SAT 1750-2150 MHz	16	20
	SAT 2150-2400 MHz	16	20
Outputs insulation (dB)	RC 5-40 MHz	23	24
	TV 47-862 MHz	23	23
	SAT 950-1750 MHz	22	23
	SAT 1750-2150 MHz	21	22
	SAT 2150-2400 MHz	20	21

TV-SAT WALLOUTLET

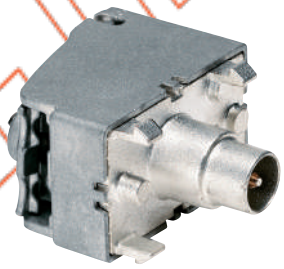
SPI IEC OUTLETS Series

Single outlet with 1 output male IEC connector for TV and Satellite band (**5-2400MHz**)

- The outlet is designed with an innovative system to connect to coaxial cable. It enables the user to connect to a cable with a diameter between 5 and 7mm.
- Fully shielded (**class A**)
- **plastic adapter** for all the brands available on the market



SPI00



SPI22

Item			SPI00	SPI05
Code			220711	220712
Insertion loss (dB)	RC 5-40 MHz	dB	-	5
	TV 47-862 MHz	dB	-	5
	SAT 950-1750 MHz	dB	-	7
	SAT 1750-2150 MHz	dB	-	7
	SAT 2150-2400 MHz	dB	-	8
Tap loss (dB)	RC 5-40 MHz	dB	0.5	5
	TV 47-862 MHz	dB	0.5	5
	SAT 950-1750 MHz	dB	0.8	7
	SAT 1750-2150 MHz	dB	0.8	7
	SAT 2150-2400 MHz	dB	0.8	8
Outlet type			Terminal outlet	Passthrough outlet
Connector			IEC male	IEC male

Item			SPI10	SPI14
Code			220713	220714
Insertion loss (dB)	RC 5-40 MHz	dB	2.5	1.5
	TV 47-862 MHz	dB	2.5	1.2
	SAT 950-1750 MHz	dB	3	2.2
	SAT 1750-2150 MHz	dB	3	2.2
	SAT 2150-2400 MHz	dB	3.2	2.5
Tap loss (dB)	RC 5-40 MHz	dB	10.5	15
	TV 47-862 MHz	dB	10	14.5
	SAT 950-1750 MHz	dB	10.5	14.5
	SAT 1750-2150 MHz	dB	10.5	14.5
	SAT 2150-2400 MHz	dB	11	15
Outlet type			Passthrough outlet	Passthrough outlet
Connector			IEC male	IEC male

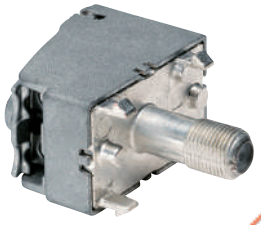
TV-SAT WALLOUTLET

SPF SERIES F CONNECTORS OUTLETS Series

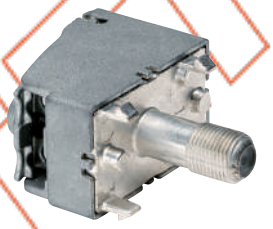
Single outlet with 1 output male F connector for TV and Satellite band (**5-2400MHz**)

- The outlet is designed with an innovative system to connect to coaxial cable. It enables the user to connect to a cable with a diameter between 5 and 7mm.
- Fully shielded (**class A**)
- **plastic adapter** for all the brands available on the market
- Complies with EN50083-4

Item			SPF00	SPF05	SPF14
Code			220721	220722	220724
Insertion loss (dB)	RC 5-40 MHz	dB	-	5	1.5
	TV 47-862 MHz	dB	-	5	1.2
	SAT 950-1750 MHz	dB	-	7	2.2
	SAT 1750-2150 MHz	dB	-	7	2.2
	SAT 2150-2400 MHz	dB	-	8	2.5
Tap loss (dB)	RC 5-40 MHz	dB	0.5	5	15
	TV 47-862 MHz	dB	0.5	5	14.5
	SAT 950-1750 MHz	dB	0.8	7	14.5
	SAT 1750-2150 MHz	dB	0.8	7	14.5
	SAT 2150-2400 MHz	dB	0.8	8	15
Outlet type			Terminal outlet	Passthrough outlet	Passthrough outlet
Connector			F female	F female	F female



SPF00



SPF22

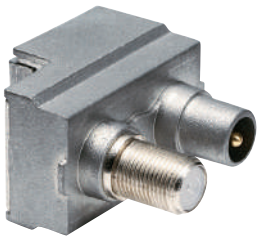
TV-SAT WALLOUTLET

PDM DEMIX OUTLET Series

Single outlet with 2 outputs IEC connector for TV (47-862MHz) and F connector for Satellite band (**950-2400MHz**)

- The outlet demix SAT and TV combined in a single input **2 connectors** IEC and F at the output.
- **DC pass through** from F connector (SAT) and the input clamp for terminal outlet and from F connector (SAT) and the input/output clamp on the passthrough outlet
- The outlet is designed with an innovative system to connect to coaxial cable. It enables the user to connect to a cable with a diameter between 5 and 7mm.
- Fully shielded (**class A**)
- **plastic adapter** for all the brands available on the market
- Complies with EN50083-4

Item			PDM00	PDM05	PDM10	PDM14
Code			220003	220002	220001	220004
Insertion loss (dB)	RC 5-40 MHz	dB	-	-	-	-
	TV 47-862 MHz	dB	-	6	4	3
	SAT 950-1750 MHz	dB	-	6	4	3.5
	SAT 1750-2150 MHz	dB	-	6	4	3.5
	SAT 2150-2400 MHz	dB	-	6	4	3.5
Tap loss (dB)	RC 5-40 MHz	dB	-	-	-	-
	TV 47-862 MHz	dB	2	6	10	14
	SAT 950-1750 MHz	dB	2	6	11	15
	SAT 1750-2150 MHz	dB	2	6	11	15
	SAT 2150-2400 MHz	dB	2	6	11	15
Outlet type			Terminal outlet	Passthrough outlet	Passthrough outlet	Passthrough outlet
Connector			IEC male, F female	IEC male, F female	IEC male, F female	IEC male, F female



PDM00



PDM10

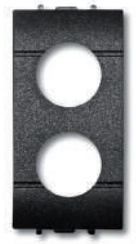
OUTLET ADAPTORS

OUTLET ADAPTORS Series

Plastic adapters for all the brands available on the market



BT-INT



BT-INT2



BT-LIGT2



BT-MAT



BT-TT

Item	Code	adaptors	Color	Type	Pcs
AV-44DO	287543	Ave 44 Domus ® System	White	Single	20
AV-44DO2	287538	Ave 44 Domus ® System	White	Demix	10
AV-44LI	287542	Ave Sistema 44 Life ®	Black	Single	20
AV-44LI2	287539	Ave Sistema 44 Life ®	Black	Demix	10
BT-LNOW	287549	Ticino Living Now ®	Universal	Single	20
BT-LNOW2	287540	Ticino Living Now ®	Universal	Demix	10
BT-AX	287126	Ticino Axolute ® and Ticino Axolute Air ®	White	Single	20
BT-AX2	287127	Ticino Axolute ® and Ticino Axolute Air ®	White	Demix	10
BT-AXS	289737	Ticino Axolute Silver ®	Silver	Single	20
BT-AXS2	289739	Ticino Axolute Silver ®	Silver	Demix	10
BT-AXB	289738	Ticino Axolute ® and Ticino Axolute Air ®	Black	Single	20
BT-AXB2	289740	Ticino Axolute ® and Ticino Axolute Air ®	Black	Demix	10
BT-INT	280754	Ticino International ®	Black	Single	20
BT-INT2	280801	Ticino International ®	Black	Demix	10
BT-LIG	280752	Ticino Light ®	Ice	Single	20
BT-LIG2	280802	Ticino Light ®	Ice	Demix	10
BT-LIGT	280699	Ticino Light Tech ®	Dark grey	Single	20
BT-LIGT2	280803	Ticino Light Tech ®	Dark grey	Demix	10
BT-MA	280755	Ticino Magic ®	Ivory	Single	20
BT-MA2	280804	Ticino Magic ®	Ivory	Demix	10
BT-LIV	280753	Ticino Living ®	Black	Single	20
BT-LIV2	280805	Ticino Living ®	Black	Demix	10
BT-LU	280756	Ticino Luna ®	White	Single	20
BT-LU2	280806	Ticino Luna ®	White	Demix	10
BT-MAT	280757	Ticino Matix ®	White	Single	20
BT-MAT2	280807	Ticino Matix ®	White	Demix	10
BT-TT	280742	Ticino Magic TT ®	Ivory	Single	20
BT-MATT2	280808	Ticino Magic TT ®	Ivory	Demix	10
VI-EKN	289798	Vimar Eikon Next ®	Dark grey	Single	20
VI-EKN2	289799	Vimar Eikon Next ®	Dark grey	Demix	10
VI-EKW	280839	Vimar Eikon White ®	White	Single	20
VI-EKW2	280840	Vimar Eikon White ®	White	Demix	10
VI-EKB	289741	Vimae Eikon Black ®	Black	Single	20
VI-EKB2	289742	Vimae Eikon Black ®	Black	Demix	10
VI-ID	280749	Vimar Idea ®	Black	Single	20
VI-ID2	280810	Vimar Idea ®	Black	Demix	10
VI-IDB	280748	Vimar Idea white ®	White	Single	20
VI-IDB2	280811	Vimar Idea white ®	White	Demix	10
VI-80	280750	Vimar 8000 ®	Ivory	Single	20
VI-802	280809	Vimar 8000 ®	Ivory	Demix	10
VI-PL	280751	Vimar Plana ®	White	Single	20
VI-PL2	280812	Vimar Plana ®	White	Demix	10
VI-PLS	287121	Vimar Plana Silver ®	Silver	Single	20
VI-PLS2	287122	Vimar Plana Silver ®	Silver	Demix	10
GW-CB	280837	Gewiss Chorus polish White ®	Shiny white	Single	20
GW-CB2	280838	Gewiss Chorus polish White ®	Shiny white	Demix	10
GW-CN	280835	Gewiss Chorus silk black ®	Glossy black	Single	20
GW-CN2	280836	Gewiss Chorus silk black ®	Glossy black	Demix	10
GW-CT	280833	Gewiss Chorus Titanium ®	Colored titanium	Single	20
GW-CT2	280834	Gewiss Chorus Titanium ®	Colored titanium	Demix	10
GW-PL	280797	Gewiss Playbus ®	Black	Single	20

Distribution

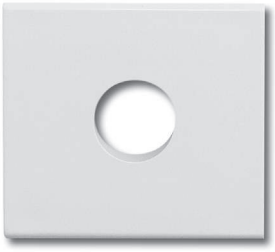
OUTLET ADAPTORS

OUTLET ADAPTORS Series

Plastic adapters for all the brands available on the market



AV-SNO



AV-SBA

Item	Code	adaptors	Color	Type	Pcs
GW-PL2	280813	Gewiss Playbus ®	Black	Demix	10
GW-SYB	280796	Gewiss System Black ®	Black	Single	20
GW-SYB2	280814	Gewiss System Black ®	Black	Demix	10
GW-SYW	280798	Gewiss System White ®	White	Single	20
GW-SYW2	280815	Gewiss System White ®	White	Demix	10
AB-CH	280831	ABB Chiara ®	White	Single	20
AB-CH2	280832	ABB Chiara ®	White	Demix	10
AV-SNO	280743	Ave Sistema 45 Noir ®	Black	Single	20
AV-SNO2	280816	Ave Sistema 45 Noir ®	Black	Demix	10
AV-SBA	280745	Ave Sistema 45 Banquise ®	Ice	Single	20
AV-SBA2	280817	Ave Sistema 45 Banquise ®	Ice	Demix	10
AV-SBL	280746	Ave Sistema 45 Blanc ®	White	Single	20
AV-SBL2	280818	Ave Sistema 45 Blanc ®	White	Demix	10
LG-CR	280747	Legrand Cross ®	White	Single	20
LG-VES	280800	Legrand Vela Scura ®	Black	Single	20
LG-VES2	280821	Legrand Vela Scura ®	Black	Demix	10
LG-VEC	280799	Legrand Vela Chiara ®	Ice	Single	20
LG-VEC2	280822	Legrand Vela Chiara ®	Ice	Demix	10
VI-ARK-B	287331	Vimar Arke Black ®	Black	Single	20
VI-ARK2-B	287304	Vimar Arke Black ®	Black	Demix	10
VI-ARK-W	287330	Vimar Arke White ®	White	Single	20
VI-ARK2-W	287303	Vimar Arke White ®	White	Demix	10

WALLMOUNT TV SAT OUTLET

PAS00 TV/SAT ROUND OUTLET Series

Wallmount **Demix round outlets** with **2, 3 or 4 outputs** Radio IEC male connector, TV IEC female connectors and SAT F female connector.



PAS0032



PAS0042D

Item			PAS0021511	PAS00322	PAS0032	PAS0042D
Code			PAS0021511	287103	PAS0032	280793
Outputs			2	3	3	4
TV1	Connector		IEC Female	IEC Female	IEC Female	IEC Female
TV1	Bandwidth	MHz	5-68 / 120-862	5-862	5-68 / 120-862	5-68 / 260-862
TV1	insertion loss	dB	2	5	1.5	2.5
TV2	Connector		-	IEC Female	-	-
TV2	Bandwidth	MHz	-	5-862	-	-
TV2	Insertion loss		-	5	-	-
R	Connector		IEC male	-	IEC male	IEC male
R	Bandwidth	MHz	88-108	-	88-108	88-108
R	insertion loss	dB	3	-	2	2.5
R	Insertion loss		-	-	-	-
SAT1	Connector		-	F female	F female	F female
SAT1	Bandwidth	MHz	-	950-2300	950-2150	950-2150
SAT1	insertion loss	dB	-	3	2	2
SAT2	Connector		-	-	-	F female
SAT2	Bandwidth	MHz	-	-	-	5-2150
SAT2	insertion loss	dB	-	-	-	3
Outlet type			Terminal outlet	Terminal outlet	Terminal outlet	Terminal outlet
Dimensions			80x80x48	80x80x48	80x80x48	80x80x48

CABLE CONNECTOR

IEC CONNECTOR Series

Male and female IEC cable connectors

- screw Inner conductor connection
- Quick and easy installation
- Compact dimensions



SP1



CCOM_IEC6F

Item		SP1	PR1	PR11
Code		290351	290451	290365
Connector		IEC male	IEC Female	90° IEC Female
Inner connection		Screw	Screw	Screw
braiding connection		Screw	Screw	Clamp
cable diameter	mm	9.5	9.5	7.5
Pcs	No.	100	100	50

Item		CCOM_IEC6F	CCOM_IEC6M
Code		287298	287300
Connector		IEC Female	IEC male
Inner connection		-	-
braiding connection		Compression	Compression
cable diameter	mm	5.9-6.0	5.9-6.0
Pcs	No.	100	100

Item		CIM95	CIF95
Code		289772	289774
Connector		IEC male	IEC Female
Inner connection		Clamp	Clamp
braiding connection		Clamp	Clamp
cable diameter	mm	9.5	9.5
Pcs	No.	20	20

CABLE CONNECTOR

F CONNECTOR Series

Several types of screw F connectors, crimp or compression

- Quick and easy installation
- Compact dimensions



CF50B



CFR50B



CCF66

Item		CF50B	CF60B	CF66B	CF70B
Code		287189	287190	287191	287192
Connector		Screw Male F connector	Screw Male F connector	Screw Male F connector	Screw Male F connector
Cable connection		Screw	Screw	Screw	Screw
cable diameter	mm	4.9-5.0	5.9-6.0	6.5-6.6	6.9-7.0
Ring color		Red	Green	Yellow	Blue
Pcs	No.	100	100	100	100

Item		CFR50B	CFR60B	CFR66B	CCF66
Code		287193	287194	287195	289768
Connector		Quick Male F connector	Quick Male F connector	Quick Male F connector	Screw Male F connector
Cable connection		Screw	Screw	Screw	Crimp
cable diameter	mm	4.9-5.0	5.9-6.0	6.5-6.6	6.5-6.6
Ring color		Red	Green	Yellow	Yellow
Pcs	No.	100	100	100	100

Distribution

CONNECTOR ACCESSORIES

75Ohm LOADS Series

75 ohm loads

Item	Code	Description	Pcs
CA75F	289085	F connector 75ohm load	100
T75IF	290002	Isolated 75 ohm load	20
CR75I	289776	Coaxial isolated 75Ω load	20



CA75F



CR75I



T75IF

CONNECTOR ACCESSORIES

ADAPTER Series

Accessories and adapters for several connectors or cables

Item	Code	Description	Pcs
TF90	289543	90° F male-female	50
GCF	289544	F female-F female connector	50
GC1	290030	Mal-Male F connector	100
PAUTV	280373	Double F female-F female with earth bouding screw	250
AR20F	287202	20dB in line attenuator 5-2400MHz, DC pass	5
PAS3213001	PAS3213001	F male-F female with DC block	20



AR20F



TF90



PAS3213001



GCF



GC1



PAUTV

HIPER AV

COAXIAL CABLES

INDOOR USE CABLES Series



PAS4025202



PAS4037104



PAS4016102

Item			PAS4025103	PAS4025202	PAS4037104	PAS4016102
Code			287161	289700	PAS4037104	PAS4016102
Inner coductor	Material		CU	CU	CU	CU
	Diameter	mm	0.80	0.80	1.13	1.0
Dielectric	Material		PEE	PEE	PEE	PEE
	Diameter	mm	3.5	3.5	4.85	4.7
Braid	Foil		Al/Pet	Al/Pet	Al/Pet	Al/Pet
		%	100%	100%	100%	100%
	Braid		CuSn	CuSn	Al	CuSn
		%	40%	40%	35%	40%
	Foil		-	-	-	-
		%	-	-	-	-
Antimigrating foil			PET	PET	PET	PET
Internal cable sheath	Material		-	-	-	-
	Diameter	mm	-	-	-	-
Jacket outdoor use	Material		White PVC	White PVC	White PVC	White PVC
	Diameter	mm	5	5	6.8	6.7
Impedance	@ 200 MHz	Ohm	75	75	75	75
Capacity		pF/m	52	52	52	52
Propagation speed			85%	85%	85%	85%
Minimum bending radius			35	35	35	35
Attenuation	@ 5 MHz	dB	2.0	2.0	1.5	1.6
	@ 50 MHz	dB	5.9	5.9	4.3	4.6
	@ 200 MHz	dB	11.3	11.3	8.4	9.0
	@ 470 MHz	dB	17.6	17.6	13.6	14.5
	@ 800 MHz	dB	23.3	23.3	17.2	18.6
	@ 1000 MHz	dB	26.3	26.3	19.8	21.1
	@ 1350 MHz	dB	30.8	30.8	23.3	25.0
	@ 1750 MHz	dB	35.6	35.6	27.0	27.9
	@ 2150 MHz	dB	40.0	40.0	30.6	31.7
	@ 2400 MHz	dB	42.2	42.2	32.5	33.2
	@ 2700 MHz	dB	45.2	45.2	35.0	35.8
Return loss	@ 30-470 MHz	dB	>28	>28	>29	>30
	@ 470-862 MHz	dB	>26	>26	>25	>25
	@ 862-1750 MHz	dB	>20	>20	>20	>20
	@ 1750-2400 MHz	dB	>20	>20	>20	>20
Shielding efficiency	@ 5-30 MHz	dB	>65	>65	>65	>75
	@ 30-1000 MHz	dB	>80	>80	>80	>85
	@ 1000-2150 MHz	dB	>85	>85	>70	>85
Inner conductor resistance		Ohm/km	35	35	21.5	22.5
Outer conductor resistance		Ohm/km	33	33	27	27
Length		m	100	200	100	100
CPR compliance			Eca EN60322-1-2 EN50575: 2014+A1: 2016 available on ce.fracarro.com			

HIDE

Distribution

COAXIAL CABLES

INDOOR USE CABLES Series



PAS4017101



PAS4007111

OUTDOOR USE CABLES Series



PAS4117101

Item			PAS4017101	PAS4007111	PAS4117101
Code			PAS4017101	PAS4007111	PAS4117101
Inner coductor	Material		CU	CU	CU
	Diameter	mm	1.13	1.13	1.13
Dielectric	Material		PEE	PEE	PEE
	Diameter	mm	4.8	4.8	4.8
Braid	Foil		Al/Pet	Al/Pet/Al	Al/Pet
		%	100%	100%	100%
	Braid		CuSn	CuSn	CuSn
		%	40%	40%	40%
	Foil		-	Al/Pet	-
		%	-	100%	-
Antimigrating foil			PET	PET	PET
Internal cable sheath	Material		-	-	-
	Diameter	mm	-	-	-
Jacket outdoor use	Material		White PVC	White PVC	Black PVC
	Diameter	mm	6.8	6.8	6.8
Impedance	@ 200 MHz	Ohm	75	75	75
Capacity		pF/m	52	52	52
Propagation speed			85%	85%	85%
Minimum bending radius			35	35	35
Attenuation	@ 5 MHz	dB	1.3	1.3	1.3
	@ 50 MHz	dB	4.3	4.1	4.3
	@ 200 MHz	dB	8.4	8.0	8.4
	@ 470 MHz	dB	13.4	12.6	13.4
	@ 800 MHz	dB	17.2	16.8	17.2
	@ 1000 MHz	dB	19.5	18.9	19.5
	@ 1350 MHz	dB	23.0	22.3	23.0
	@ 1750 MHz	dB	26.2	25.5	26.2
	@ 2150 MHz	dB	29.5	28.7	29.5
	@ 2400 MHz	dB	31.9	30.4	31.9
	@ 2700 MHz	dB	33.0	32.8	33.0
Return loss	@ 30-470 MHz	dB	>30	>30	>30
	@ 470-862 MHz	dB	>28	>28	>28
	@ 862-1750 MHz	dB	>23	>25	>23
	@ 1750-2400 MHz	dB	>23	>20	>23
Shielding efficiency	@ 5-30 MHz	dB	>75	>85	>75
	@ 30-1000 MHz	dB	>85	>95	>85
	@ 1000-2150 MHz	dB	>85	>90	>85
Inner conductor resistance		Ohm/km	18	18	18
Outer conductor resistance		Ohm/km	26	21	26
Length		m	100	100	100
CPR compliance			Eca EN60322-1-2 EN50575:2014+A1: 2016 available on ce.fracarro.com		

COAXIAL CABLES

UTP CAT5 CABLES FOR INDOOR USE Series

Category 5E UTP cable for **indoor** use for generic data wiring according to **EN50173**

- Category **5E**
- **PVC** or white **LSZH** sheath
- Data cable for **indoor** use



CAT5E PVC

Item		CAT5E PVC	CAT5E LSZH
Code		287527	287528
Jacket		PVC 0.5mm	LSZH 0.5mm
External diameter	mm	4.8	4.8
Conductors material		Copper	Copper
Conductors diameter	mm	0.48 +/-0.005	0.48 +/-0.005
Conductors insulation		HDPE; 0.20mm; 0% expanded	HDPE; 0.20mm; 0% expanded
Inner sheath diameter	mm	0.87+/-0.03	0.87+/-0.03
Standard test		ISO/IEC 11801, TIA EIA568C.2	ISO/IEC 11801, TIA EIA568C.2
Pulling tension	Mpa	>13.5	>10
Elongation	%	>150	>125
Cold bend		No visible cracks (-20 +/- 2 ° Cx4h)	No visible cracks (-20 +/- 2 ° Cx4h)
Packaged in rolled skein, unrollable	m	305	305
CPR compliance	m	Eca EN60322-1-2 EN50575:2014+A1:2016 available on ce.fracarro.com	

COAXIAL CABLES

UTP CAT6 CABLES FOR INDOOR USE Series

UTP Category 6 cable for **indoor** use, for generic data wiring according to **EN50173**

- Category **6**
- **PVC** or white **LSZH** sheath
- Data cable for **indoor** use



CAT6 PVC

Item		CAT6 PVC	CAT6 LSZH
Code		287529	287530
Jacket		PVC 0.45mm	LSZH 0.45mm
External diameter	mm	5.1	5.1
Conductors material		Copper	Copper
Conductors diameter	mm	0.535+/-0.005	0.535+/-0.005
Conductors insulation		HDPE; 0.21mm; 0% expanded	HDPE; 0.21mm; 0% expanded
Inner sheath diameter	mm	0.95+/-0.03	0.95+/-0.03
Standard test		ISO/IEC 11801, TIA EIA568C.2	ISO/IEC 11801, TIA EIA568C.2
Pulling tension	Mpa	>13.5	>10
Elongation	%	>150	>125
Cold bend		No visible cracks (-20 +/- 2 ° Cx4h)	No visible cracks (-20 +/- 2 ° Cx4h)
Packaged in rolled skein, unrollable	m	305	305
CPR compliance	m	Eca EN60322-1-2 EN50575:2014+A1:2016 available on ce.fracarro.com	

COAXIAL CABLES

UTP CAT5 AND CAT6 CABLES FOR OUTDOOR USE Series

Category 5E and 6 UTP cable for **external** use, for generic data wiring according to **EN50173**

- Category **5E** or **6**
- Black **PE** sheath
- Data cable for **outdoor** use



CAT5E PE

Item		CAT5E PE	CAT6 PE
Code		287532	287533
Jacket		PE 0.5mm	PE 0.45mm
External diameter	mm	4.8	5.1
Conductors material		Copper	Copper
Conductors diameter	mm	0.48 +/-0.005	0.535+/-0.005
Conductors insulation		HDPE; 0.20mm; 0% expanded	HDPE; 0.21mm; 0% expanded
Inner sheath diameter	mm	0.87+/-0.03	0.95+/-0.03
Standard test		ISO/IEC 11801, TIA EIA568C.2	ISO/IEC 11801, TIA EIA568C.2
Pulling tension	Mpa	>13.5	>10
Elongation	%	>150	>125
Cold bend		No visible cracks (-20 +/- 2 ° Cx4h)	No visible cracks (-20 +/- 2 ° Cx4h)
Packaged in rolled skein, unrollable	m	305	305
CPR compliance	m	Eca EN60322-1-2 EN50575:2014+A1:2016 available on ce.fracarro.com	

HIPER ANTE

Measurement tools

MEASUREMENT TOOLS

FIELD METERS Series 131
FUSION SPLICERS FOR OPTICAL FIBRE Series 132
FIBRE OPTIC TOOLS Series 133

HIPER ANTENA

Measurement Tools

MEASUREMENT TOOLS

FIELD METERS Series

Combined Satellite (DVB-S/S2) up to 2610MHz, TV (DVB-T/T2) **Field Meters** with H265 HEVC Main 10 compression and CATV (DVB-C 5) "capacitive touch screen. Complete with DiSEqC, with SCR and DCSS (SCD2) and wideband protocols. MPEG 2 video compression with Full HD or SD image quality. Optical meter complete with adapters. The metal body gives the meter a robustness suitable for installation use.





		FR5HEVC	FR5HEVCPRO
Code		287572	287571
Display		5"	5"
Remote feeding and DiSEqC commands		5-12-18-24 DiSEqC, SCR, dCSS (SCD2)	5-12-18-24 DiSEqC, SCR, dCSS (SCD2)
Battery	mAh	4300Ah	4300Ah
Mains	V	220-240Vac Power supply supplied	220-240Vac Power supply supplied
PC interface	Type	USB	USB
Box		Metal box with rainproof bag	Metal box with rainproof bag
Frequency range	MHz	30 ÷ 1000 , 700 ÷ 2610	30 ÷ 1000 , 700 ÷ 2610
Impedance	ohm	75	75
TV input power	dBµV	35 ÷ 115	35 ÷ 115
SAT input power	dBµV	5 ÷ 105	5 ÷ 105
Digital and analog images		MPEG2-4 SD and HD, HEVC with Program List, Audio Video PIDs, LCN, Video bit Rate	MPEG2-4 SD and HD, HEVC with Program List, Audio Video PIDs, LCN, Video bit Rate
Digital measurements		Digital Power, MER (36 to 40 dB according to modulation), BER, PER, LDPC, BCH, Noise Margin, MER for CARRIERS.	Digital Power, MER (36 to 40 dB according to modulation), BER, PER, LDPC, BCH, Noise Margin, MER for CARRIERS.
Standard DVB		DVB-S/S2, DVB-T/T2, DVB-C	DVB-S/S2, DVB-T/T2, DVB-C
MER		MER	MER
Constellation		TV and SAT	TV and SAT
Dolby AC3DD+		Optional	Optional
Memory plans		2000 Pre-stored transponders (SAT) World channels (TV)	2000 Pre-stored transponders (SAT) World channels (TV)
Settable memory plans		Programmable from PC or instrument	Programmable from PC or instrument
Data loggers		With Stop&Go function	With Stop&Go function
Optical input		-	Integrated SC
Dimensions	mm	255x130x40	255x130x40
Weight	kg	1.4	1.4
Packing	mm	-	-

FIBER OPTIC TOOLS

FUSION SPLICERS FOR OPTICAL FIBRE Series

Professional 4-motor fusion splicer with 3-axis alignment on the core complete with cutter, isopropyl alcohol stripper, wipes and rigid carrying case.



		FST-83A
Code		287535
Fiber type		SM/MM/DS/NZDS
Fiber alignment		3-axis core
Splicing mode		Default 41 modes, 100 can be saved
Typical splice loss	dB	0.01-0.05
Return loss	dB	>60
Splicing time	%	6-12
Display		High resolution 5" color touchscreen LCD
Light source		-
Battery	mAh	Lythium 11,1 VDC / 5200
Zoom		**non tradotto**
Supply voltage	Vac/Hz	External power supply 12-15V, 100-240VAC 50-60Hz
Consumption	W	-
Operating temperature	°C	Altitude 0-5000m, relative humidity 0-95%, temperature -10-50 ° C, wind speed l 5m/s
Connections	dBµV	Mini USB 2.0
Dimensions	mm	140x165x160
Weight	kg	2.25

HIPERTRONICA

Measurement Tools

FIBER OPTIC TOOLS

FIBRE OPTIC TOOLS Series

Tools for measuring and diagnosing fiber optic distributions.

OPT Meter

Optical multimeter for different wavelengths, with integrated source for the verification of multiservice systems and fiber optic distributions.

OPTmet+RJ45test

Portable multifunction optical **power meter** with Visual Fault Locator and testing functionality for RJ45 cables.





		OPT Meter	OPTmet+RJ45test
Code		287537	287568
Optical input		SC/PC	2.5mm universal
Wavelength	nm	850/1300/1310/1490/1550/1625	850/1300/1310/1490/1550/1625
Optical return loss	dB	>60	-
Max. Input optical power	dB	1310/1490/1550/1625: +10 ~ -70dBm	+26 ~ -50dBm
Accuracy	%	0.2	0.2
Light source		-	-
Battery		AAx2	Build in lithium-ion battery
Fiber type		FC & 2.5mm UPP (option: SC, ST)	2.5mm universal
Supply voltage	Vac/Hz	External power supply	Micro USB charging
Consumption	W	-	-
Operating temperature	°C	-10 - +50, <90% relative humidity	-10 - +50, <90% relative humidity
LEDs	dBµV	10mW on board laser	10mW VFL for fast fault location
Dimensions	mm	170x97x38	59x98x27
Weight	kg	0.38	0.1



Kit pulizia (Cleaning tools)

Item	Code	Features
Kit Pulizia (Cleaning tools)	287536	Cleaning tools consisting of a connector kit, wipes for cleaning fibers and optical sleeves, isopropyl alcohol.

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Fracarro Radioindustrie SRL
Via Cazzaro, 3
31033 Castelfranco Veneto (TV) Italy
Tel. +39 0423 7361
Fax +39 0423 736220
info@fracarro.com
www.fracarro.com