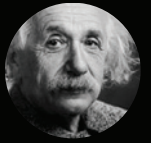


Televes®

QUICK
PRODUCT
GUIDE 2019



PASSION for QUALITY



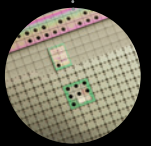
ALBERT EINSTEIN **IQ: 190**
Developer of the theory of relativity



MARIE CURIE **IQ: 200**
Pioneer in the field of radioactivity



WILLIAM JAMES SIDIS **IQ: 300**
At age 8, he spoke 8 languages
At age 40, he spoke 40 languages



INTELLIGENT ANTENNA
WITH TFORCE TECHNOLOGY

Ellipse[®]

INTELLIGENCE TAKEN TO THE LIMIT

A new concept of DTT antenna that eliminates any interference even
in the limits of the TV band,
combining a break-through design in a 100% stainless mechanical
frame that houses the new generation of TForce electronics,
featuring a revolutionary SAW filter.

www.ellipse.televes.com

Televes[®]

www.televes.com | www.televescorporation.com



Televes Corporation[®]

1 TERRESTRIAL ANTENNAS	5	10 COAXIAL CABLE	28
Intelligent BOSS antennas	5	Coaxial cables	28
Passive antennas	6	Underground cables	28
Extended 4G coverage	6	Accessories	28
2 SATELLITE DISHES	7	11 DATA ENCLOSURES AND CABLES	30
QSD Series (<i>Quality Satellite Dishes</i>)	7	Racks, enclosures and boxes	30
ISD Series (<i>Inox Satellite Dishes</i>)	7	Data cables	30
LNBS	8	Data connectors	30
Masts, brackets & fixing accessories	8	12 SET TOP BOXES & HOME ACCESSORIES	31
3 TOWERS	9	DTH STBs	31
Pack Tower	9	Modulator	31
180 SE Tower	9	Audio/Video & IR transmission	31
180 Tower	9	IR over RF transmission	31
360 Tower	10	13 MEASURING EQUIPMENT & TOOLS	32
450 Tower	10	Spectrum analyzer	32
550 Tower	11	Fibre optic tools	33
450XL Reinforced Tower	11	Signal generators	33
550XL Reinforced Tower	11	14 DATA TECHNOLOGY	34
4 LTE FILTERS & COMBINERS	12	CoaxData Series	34
LTE Filters	12	FibreData Solutions:	
Combiners	12	GPON (<i>Gigabit-capable Passive Optical Networks</i>)	35
5 AMPLIFICATION	13	15 DIY	37
Masthead amplifiers	13	Antennas	37
MATV domestic amplifiers (47...694/790/862MHz)	13	Indoor antennas	37
Launch amplifiers: MiniKom "EasyF" Series	14	Home accessories	37
Launch amplifiers: MiniKom "F" Series	14	Digital receivers	38
Launch amplifiers: DTKom Series	14	LTE filters	38
Amplifiers: Outdoor Series	15	Modulator	38
Programmable amplifiers: Avant Series	15	Domestic amplifiers	38
Single channel amplifiers: T12 Series	16	Attenuators	38
6 PROCESSING HEADENDS	17	Splitters	38
T.OX Series	17	Coaxial	39
7 MULTISWITCHES	19	Fibre optics connection	39
NevoSwitch Series:		Audio/Video connection	39
dCSS stand alone & cascade multiswitches	19	Mast accessories	39
Cabinets & accessories	20	16 ARANTIA TV	40
8 FIBRE OPTICS	21	Compact HE-21 IPTV headend	40
T.OX Series	21	Transcoders	40
19" Rack format	22	ITV headend (Interactive television)	40
Standalone format	22	ITV personalization & options	40
F.O. Distribution (Optical nodes)	22	IPTV - ITV in room equipment	41
F.O. Distribution	23	IPTV - ITV accessories	41
F.O. Cables (ITU-T G657A2)	24	17 ARANTIA DS	42
Accessories	24	Digital signage cloud	42
F.O. Distribution (Optical LNB)	25	Local digital signage	42
9 DISTRIBUTION	26	TERMS AND CONDITIONS OF SALE	44
Splitters with "EasyF" connector	26	CLEARANCE EVENTS IN Q1 2018	46
Splitters with "F" connector	26	COMMERCIAL NETWORK	47
Taps with "F" connector	26		
Outlets	27		
Connectors	27		

CALENDAR 2019

JANUARY

Week	M	T	W	T	F	S	S
1		1	2	3	4	5	6
2	7	8	9	10	11	12	13
3	14	15	16	17	18	19	20
4	21	22	23	24	25	26	27
5	28	29	30	31			

FEBRUARY

Week	M	T	W	T	F	S	S
5					1	2	3
6	4	5	6	7	8	9	10
7	11	12	13	14	15	16	17
8	18	19	20	21	22	23	24
9	25	26	27	28	1		

MARCH

Week	M	T	W	T	F	S	S
9					1	2	3
10	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17
12	18	19	20	21	22	23	24
13	25	26	27	28	29	30	

APRIL

Week	M	T	W	T	F	S	S
13	1	2	3	4	5	6	7
14	8	9	10	11	12	13	14
15	15	16	17	18	19	20	21
16	22	23	24	25	26	27	28
17	29	30					

MAY

Week	M	T	W	T	F	S	S
18			1	2	3	4	5
19	6	7	8	9	10	11	12
20	13	14	15	16	17	18	19
21	20	21	22	23	24	25	26
22	27	28	29	30	31		

JUNE

Week	M	T	W	T	F	S	S
22					1	2	
23	3	4	5	6	7	8	9
24	10	11	12	13	14	15	16
25	17	18	19	20	21	22	23
26	24	25	26	27	28	29	30

JULY

Week	M	T	W	T	F	S	S
26	1	2	3	4	5	6	7
27	8	9	10	11	12	13	14
28	15	16	17	18	19	20	21
29	22	23	24	25	26	27	28
30	29	30	31				

AUGUST

Week	M	T	W	T	F	S	S
31				1	2	3	4
32	5	6	7	8	9	10	11
33	12	13	14	15	16	17	18
34	19	20	21	22	23	24	25
35	26	27	28	29	30		

SEPTEMBER

Week	M	T	W	T	F	S	S
35						1	
36	2	3	4	5	6	7	8
37	9	10	11	12	13	14	15
38	16	17	18	19	20	21	22
39	23	24	25	26	27	28	29

OCTOBER

Week	M	T	W	T	F	S	S
40		1	2	3	4	5	6
41	7	8	9	10	11	12	13
42	14	15	16	17	18	19	20
43	21	22	23	24	25	26	27
44	28	29	30	31			

NOVEMBER

Week	M	T	W	T	F	S	S
44					1	2	3
45	4	5	6	7	8	9	10
46	11	12	13	14	15	16	17
47	18	19	20	21	22	23	24
48	25	26	27	28	29	30	

DECEMBER

Week	M	T	W	T	F	S	S
48						1	
49	2	3	4	5	6	7	8
50	9	10	11	12	13	14	15
51	16	17	18	19	20	21	22
52	23	24	25	26	27	28	29

New

Pack boxed in

TFORCE TForce Technology

Integrated protection against LTE:

LTE790 Channel 60 filtering (790MHz)

LTE700 Channel 48 filtering (694MHz)

AUTO LTE Channel 48/60 filtering (automatic switching)

Dimensions: xyz
(width x height x depth)

Identifying colour in product

Orange	Graphite
White	Black
Red	Violet
Grey	

Packaging type for coaxial cable

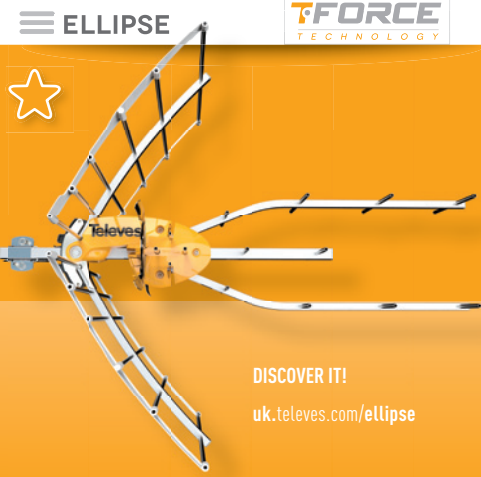
- Plastic reel
- Wooden drum

Televés expresses that this document is just for information purposes and does not accept any responsibility that could be originated from possible errors or omissions regarding its content.

The product pictures included are not contractual and Televés could supply products as shown or these could suffer variations, modifications and/or alterations at any time and without notice.

TERRESTRIAL ANTENNAS

Ref.	Description			
INTELLIGENT BOSS ANTENNAS				
ELLIPSE SERIES - with TForce Technology				TFORCE
★ 148923	Ellipse Terrestrial Antenna UHF (Ch21-48), G 38dBi BOSS ON PSU included, UK plug (Single Packing)	LTE700	⊙	1
DAT SERIES - with TForce Technology				TFORCE
149921	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Single Packing)	LTE700	⊙	1/5
149922	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Multiple Packing)	LTE700	⊙	6
149941	DAT BOSS Terrestrial Antenna UHF (Ch21-60) G 17dBi BOSS OFF, G 45dBi BOSS ON (Single Packing)	LTE790	⊙	1/5
149942	DAT BOSS Terrestrial Antenna UHF (Ch21-60) G 17dBi BOSS OFF, G 45dBi BOSS ON (Multiple Packing)	LTE790	⊙	6
149721	DAT BOSS LR Terrestrial Antenna UHF (Ch21-48) G 19dBi BOSS OFF, 47dBi BOSS ON (Single Packing)	LTE700	⊙	1
149740	DAT BOSS LR Terrestrial Antenna UHF (Ch21-60) G 19dBi BOSS OFF, 47dBi BOSS ON (Single Packing)	LTE790	⊙	1
NOVA SERIES (SPECIAL ANTENNAS) - with TForce Technology				TFORCE
144021	DINOVA BOSS Terrestrial Antenna UHF (C21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON	LTE700	⊙	1
144022	DINOVA BOSS Terrestrial Antenna UHF (C21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	LTE700	⊙	1
144011	DINOVA BOSS Terrestrial Antenna UHF (Ch21-60) G 7dBi BOSS OFF, G 34dBi BOSS ON	LTE790	⊙	1
144012	DINOVA BOSS Terrestrial Antenna UHF (Ch21-60) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	LTE790	⊙	1
★ 144221	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch5-12/21-48) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON	LTE700	⊙	1
★ 144222	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch5-12/21-48) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON (Kit with accesories)	LTE700	⊙	1
★ 144211	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch5-12/21-60) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON	LTE790	⊙	1
★ 144212	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch5-12/21-60) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON (Kit with accesories)	LTE790	⊙	1
★ 144422	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF(Ch3-12/21-48) G 17/16/25/25dBi BOSS ON (Kit with accessories)	LTE700	⊙	1
★ 144442	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF(Ch3-12/21-60) G 17/16/25/25dBi BOSS ON (Kit with accessories)	LTE790	⊙	1
NOVA SERIES (CARAVAN AND SHIP ANTENNAS)				LTE790
144501	CAMPNOVA BOSS Terrestrial Antenna FM/BIII/UHF G -2/10/22dBi BOSS ON (Kit with accessories)		⊙	1



DISCOVER IT!
uk.televes.com/ellipse

INTELLIGENCE TAKEN TO THE LIMIT

A new concept in DTT antenna that eliminates any interference even in limit of the TV band, combining break-through design and the new generation of TForce with SAW filtering in a 100% stainless mechanical frame.



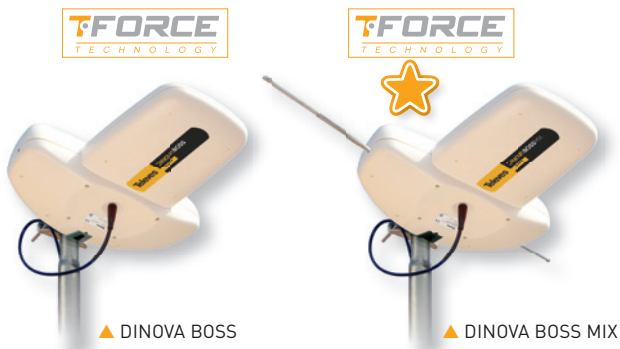
▲ DAT BOSS LR



▲ OMNINOVA BOSS



▲ CAMPNOVA BOSS



▲ DINOVA BOSS

▲ DINOVA BOSS MIX

TERRESTRIAL ANTENNAS

Ref.	Description			
INTELLIGENT BOSS ANTENNAS				
INDOOR SERIES - with TForce Technology				TFORCE
★ 130220	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 20dBi (USB-microUSB cable included, for 5V powering)	LTE700	B	1
★ 130240	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-60) G 20dBi (USB-microUSB cable included, for 5V powering)	LTE790	B	1
★ 130320	INNOVA BOSS MIX Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-48) G 17/20dBi (USB-microUSB cable included, for 5V powering)	LTE700	B	1
★ 130340	INNOVA BOSS MIX Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-60) G 17/20dBi (USB-microUSB cable included, for 5V powering)	LTE790	B	1
Q-BOSS				LTE790
562001	Q-BOSS 774 "EasyF" UHF (Ch21-58) G 12dB Vo 101dBμV			10
561902	Q-BOSS 782 "EasyF" UHF (Ch21-59) G 15dB Vo 101dBμV			10
561901	Q-BOSS 790 "EasyF" UHF (Ch21-60) G 15dB Vo 101dBμV			10
INTELLIGENCE ACTIVATION ACCESSORIES (BOSS Tech)				
5796	PicoKom Domestic Power Supply Unit 1i/1o "EasyF" SATmix: 5...2400MHz 12V-220mA			1/10
5501	Domestic Power Supply Unit 1i/2o "F": 5...862MHz 12V-220mA			1
PROTECTION ACCESSORIES				
4947	Coaxial Atmospheric Surge Arrestor 90V 0...3GHz			1/20
PASSIVE ANTENNAS				
FM				
1201	FM Terrestrial Antenna 88...108MHz Circular G 1dBi			1/5
VHF, BAND III & DAB				
1050	BIII/DAB Terrestrial Antenna 174...240MHz 3 Elements G 8dBi (Single Packing)			1
105001	BIII/DAB Terrestrial Antenna 174...240MHz 3 Elements G 8dBi (Multiple Packing)			5
UHF				
802440	Yagi Terrestrial Antenna UHF (Ch21-60) 10 Elements G 8.5dBi	LTE790	O	15
802441	Yagi Terrestrial Antenna UHF(Ch21-60) 10 Elements G 8.5dBi Black	LTE790	B	15
111940	Yagi Edge Terrestrial Antenna UHF (Ch21-60) 12 Elements G 10dBi (Multiple Packing)	LTE790	O	15
111941	Yagi Edge Terrestrial Antenna UHF (Ch21-60) 12 Elements G 10dBi Black (Multiple Packing)	LTE790	B	15
112140	L 790 Terrestrial Antenna UHF (Ch21-60) 18 Elements G 13dBi	LTE790	O	6
112141	L 790 Terrestrial Antenna UHF (Ch21-60) 18 Elements G 13dBi Black	LTE790	B	6
149221	V ZENIT Terrestrial Antenna UHF (Ch21-48) G 13dBi (Single Packing)	LTE700	O	1/6
149222	V ZENIT Terrestrial Antenna UHF (Ch21-48) G 13dBi (Multiple Packing)	LTE700	O	10
149201	V ZENIT Terrestrial Antenna UHF (Ch21-58/59/60 Configurable bandwidth) G 15dBi (Single Packing)	LTE790	O	1/6
149202	V ZENIT Terrestrial Antenna UHF (Ch21-58/59/60 Configurable bandwidth) G 15dBi (Multiple Packing)	LTE790	O	10
149212	V ZENIT Terrestrial Antenna UHF (Ch21-58/59/60 Configurable bandwidth) G 15dBi (Multiple Packing), Black	LTE790	B	10
EXTENDED 4G COVERAGE				
650101	4GNOVA Antenna 4G/LTE 698...960/1700...2700MHz G 7dBi (0.7m Female "N")			1



SATELLITE DISHES

Ref.	Description		
QSD SERIES (QUALITY SATELLITE DISHES)			
ALUMINIUM OFFSET DISHES			
7902	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) Orange	O	1
790204	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) White	W	1
790202	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) Graphite	Gr	1
7903	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) Orange	O	1
790304	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) White	W	1
790302	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) Graphite	Gr	1
ISD SERIES (INOX SATELLITE DISHES)			
ALUMINIUM OFFSET DISHES			
★ 793001	ISD Offset Dish 630 Aluminium G 36.2dBi Orange	O	1
★ 793002	ISD Offset Dish 630 Aluminium G 36.2dBi White	W	1
★ 793003	ISD Offset Dish 630 Aluminium G 36.2dBi Graphite	Gr	1
★ 793011	ISD Offset Dish 630 Aluminium G 36.2dBi Orange (Multiple packing)	O	10
★ 793012	ISD Offset Dish 630 Aluminium G 36.2dBi White (Multiple packing)	W	10
★ 793013	ISD Offset Dish 630 Aluminium G 36.2dBi Graphite (Multiple packing)	Gr	10
793101	ISD Offset Dish 830 Aluminium G 39dBi Orange	O	1
793102	ISD Offset Dish 830 Aluminium G 39dBi White	W	1
793103	ISD Offset Dish 830 Aluminium G 39dBi Graphite	Gr	1
793109	ISD Offset Dish 830 Aluminium G 39dBi Graphite (No Televes logo)	Gr	1
793111	ISD Offset Dish 830 Aluminium G 39dBi Orange (Multiple packing)	O	5
793112	ISD Offset Dish 830 Aluminium G 39dBi White (Multiple packing)	W	5
793113	ISD Offset Dish 830 Aluminium G 39dBi Graphite (Multiple packing)	Gr	5
793119	ISD Offset Dish 830 Aluminium G 39dBi Graphite (No Televes logo, multiple packing)	Gr	5

QSD SERIES



The long life aluminium dish, quality signal reception for life.
TÜV approved (German certifying organization).

ISD SERIES



This range of satellite dishes is built using aluminium and stainless steel to guarantee the protection against rust. The bracket and LNB holder are built using a special polymer widely used in a highly professional sector, and reinforced with fiberglass for an extreme resistance. Its improved structure has been designed to make assembly easier.

uk.televes.com/630-830

Compatibility between wall brackets & dishes

Ø Support	35		45		60	
	Dishes	7393	7349	7371	719202	7576
ISD	✓	✓	✓	✓	✓	✓
QSD	x	✓	✓	✓	✓	✓
Other typical sizes						
600	✓	✓	✓	✓	x	x
800	✓	✓	✓	✓	✓	✓
1000	x	x	x	✓	✓	✓
1100	x	x	x	x	✓	✓
1300	x	x	x	x	✓	✓



▲ ISD without logo

Ref.	Description		
LNBs			
OFFSET			
7475	Offset LNB Single (Universal) Hh/Vh/HI/VI G 60dB		1/10
746902	Offset LNB Single (Universal) Hh/Vh/HI/VI G 60dB Grey		1/100
747802	Offset LNB Twin (2 Outputs Hh/Vh/HI/VI) G 60dB		1/30
747002	Offset LNB Twin (2 Outputs Hh/Vh/HI/VI) G 60dB Grey		1/50
761001	Offset LNB Quad (4 Outputs Hh/Vh/HI/VI) G 60dB		1/30
747202	Offset LNB Quad (4 Outputs Hh/Vh/HI/VI) G 60dB Grey		1/50
7613	Offset LNB Octo (8 Outputs Hh/Vh/HI/VI) G 60dB		1/30
761301	Offset LNB Octo (8 Outputs Hh/Vh/HI/VI) G 60dB Grey		1/30
747701	Offset LNB Quattro Hh-Vh-HI-VI G 60dB		1/30
747102	Offset LNB Quattro Hh-Vh-HI-VI G 60dB Grey		1/50
OPTICAL FIBRE			
2353	Offset Optical LNB 1310nm "FC/PC" G 72dB Po 7dBm (Up to 32 converters), Grey		1
ACCESSORIES			
7450	Current Injector 10...2150MHz 1...24Vdc/1.5A		1/20
7485	Line Amplifier 1i/1o "F": UHF/SAT[dc] G -2.5/20dB Vo 112.5dBμV		1/10
7268	DiSEqC 2.0 Switch 2i/1o 0...2400MHz		1/10
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm		1/5
MASTS, BRACKETS & FIXING ACCESSORIES			
MASTS			
3010	Mast Zinc+RCP 3m x Ø 45mm x Thickness 2mm		4
GALVANIZED BRACKETS			
719201	"Y" Bracket Galvanized Wall/Ground Mount 551x439mm or 620x247mm / Ø 60mm x Thickness 1.5mm		5
719202	"Y" Bracket Galvanized Wall/Ground Mount 728x473mm or 720x481mm / Ø 45mm x Thickness 1.5mm		1
RCP BRACKETS			
7393	"L" Bracket Zinc+RCP Wall Mount 284x194mm / Ø 35mm x Thickness 1.5mm		10
7349	"L" Bracket Zinc+RCP Wall Mount 380x350mm / Ø 45mm x Thickness 1.5mm		5
7371	"L" Bracket Zinc+RCP Wall Mount 500x450mm / Ø 45mm x Thickness 2mm		5
7576	"T" Bracket Zinc+RCP Ground Mount 750x200mm / Ø 60mm x Thickness 2.9mm		1
MULTI-SATELLITE SUPPORTS			
790901	Multi-feed Support Up to 4 SAT, QSD Dishes Includes: Rail (up to 20°) + 1 LNB Support (Ref.790902)		1/10
790902	LNB Support for QSD Dishes		1/10



Galvanized brackets

Ref.	Wall mount	Ground mount
719201	551 x 439 mm	620 x 247 mm
719202	728 x 473 mm	720 x 481 mm

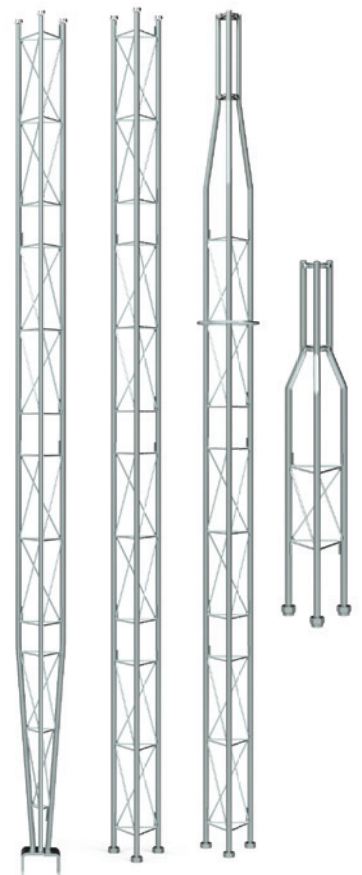


TOWERS

Ref.	Description		
PACK TOWER			
COMPLETE TOWER			
306501	"Pack" Tower Galvanized+Orange 2.2m (Mast and Accessories included)		1
180 SE TOWER			
ZINC+RCP SECTIONS			
3014	Upper Section 180 SE Tower Zinc+RCP 1.25m (mast Ømax 35mm)		1
3015	Upper Section 180 SE Tower Zinc+RCP 2.5m, with Wire Ring (mast Ømax 35mm)		1
3017	Middle Section 180 SE Tower Zinc+RCP 2.5m		1
ACCESSORIES			
3019	Fixed Embedded Base 180 SE Tower Zinc+RCP		1
3020	Fixed Bolting Base 180 SE Tower Zinc+RCP		1
180 TOWER			
ZINC+RCP SECTIONS			
3021	Upper Section 180 Tower Zinc+RCP 1m (mast Ømax 46mm)		1
3032	Upper Section 180 Tower Zinc+RCP 3m (mast Ømax 46mm)		1
3031	Middle Section 180 Tower Zinc+RCP 3m		1
3037	Lower Section Pivoting 180 Tower Zinc+RCP 3m		1
HOT-DIP GALVANIZED SECTIONS			
303201	Upper Section 180 Tower HDG 3m (mast Ømax 46mm)		1
303101	Middle Section 180 Tower HDG 3m		1
303701	Lower Section Pivoting 180 Tower HDG 3m		1
ACCESSORIES			
3058	Guy Wire Ring 180/360 Tower Zinc+RCP		1
305801	Guy Wire Ring 180/360 Tower HDG		20
3029	Embedded Frame 180 Tower Zinc+RCP for Fixed Base (Ref. 3038)		1
3038	Fixed Bolting/Embedded (with frame) Base 180 Tower Zinc+RCP		1
303801	Fixed Bolting/Embedded (with frame) Base 180 Tower H.D.G		1
3048	Pivoting Embedded Base 180 Tower Zinc+RCP		1
304801	Pivoting Embedded Base 180 Tower HDG		1
305001	Structural Cube 180 Tower Zinc+RCP 200mm		1
3034	Galvanized Steel Wire Ø 4mm		100



▲ Pack Tower
(Compatible with support ref. 7349)



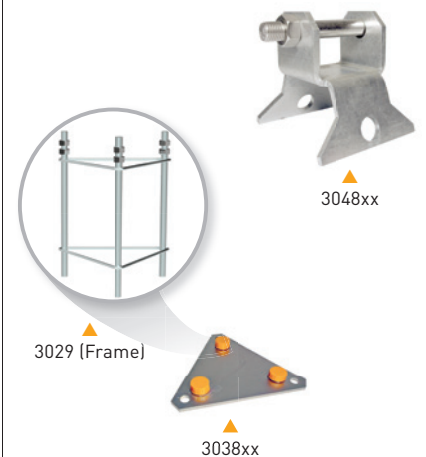
▲ 180 Sections



▲ 180 SE Tower

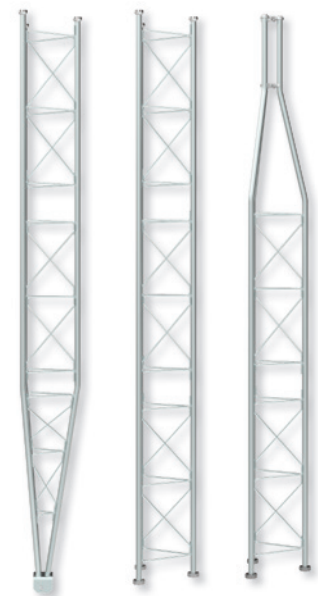
Types of finishing

 HDG Hot-Dip Galvanized	 Zinc + RCP Zinc plated + Reactive Coating Process
 HDG + Painting Hot-Dip Galvanized + Lacquered in oven with electrostatic powder of polyester	 Zinc + Painting Zinc plated + Lacquered in oven with electrostatic powder of polyester

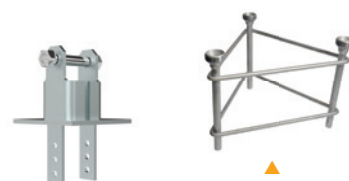


TOWERS

Ref.	Description		
360 TOWER			
ZINC+RCP SECTIONS			
3085	Upper Section 360 Tower Zinc+RCP 3m (mast Ømax 52mm)	G	1
3087	Middle Section 360 Tower Zinc+RCP 3m	G	1
3086	Lower Section Pivoting 360 Tower Zinc+RCP 3m	G	1
ZINC+PAINTING SECTIONS			
308501	Upper Section 360 Tower Zinc+Red 3m (mast Ømax 52mm)	R	1
308502	Upper Section 360 Tower Zinc+White 3m (mast Ømax 52mm)	W	1
308701	Middle Section 360 Tower Zinc+Red 3m	R	1
308702	Middle Section 360 Tower Zinc+White 3m	W	1
308601	Lower Section Pivoting 360 Tower Zinc+Red 3m	R	1
308602	Lower Section Pivoting 360 Tower Zinc+White 3m	W	1
HOT-DIP GALVANIZED SECTIONS			
308503	Upper Section 360 Tower HDG 3m (mast Ømax 52mm)	G	1
308703	Middle Section 360 Tower HDG 3m	G	1
308603	Lower Section Pivoting 360 Tower HDG 3m	G	1
HOT-DIP GALVANIZED+PAINTING SECTIONS			
308504	Upper Section 360 Tower HDG+Red 3m (mast Ømax 52mm)	R	1
308704	Middle Section 360 Tower HDG+Red 3m	R	1
308705	Middle Section 360 Tower HDG+White 3m	W	1
308604	Lower Section Pivoting 360 Tower HDG+Red 3m	R	1
308605	Lower Section Pivoting 360 Tower HDG+White 3m	W	1
ACCESSORIES			
3088	Pivoting Embedded Base 360 Tower Zinc+RCP	G	1
308801	Pivoting Embedded Base 360 Tower HDG	G	1
3089	Fixed Embedded Base 360 Tower Zinc+RCP	G	1
308901	Fixed Embedded Base 360 Tower HDG	G	1
3058	Guy Wire Ring 180/360 Tower Zinc+RCP	G	1
305801	Guy Wire Ring 180/360 Tower HDG	G	20
3059	Galvanized Steel Wire Ø 5mm		100
450 TOWER			
ZINC+PAINTING SECTIONS			
3133	Upper Section 450 Tower Zinc+Red 3m (mast Ømax 62mm)	R	1
3132	Middle Section Reinforced 450 Tower Zinc+Red 3m	R	1
313201	Middle Section Reinforced 450 Tower Zinc+White 3m	W	1
3131	Middle Section 450 Tower Zinc+Red 3m	R	1
313101	Middle Section 450 Tower Zinc+White 3m	W	1
3130	Lower Section Pivoting Reinforced 450 Tower Zinc+Red 3m	R	1
HOT-DIP GALVANIZED+PAINTING SECTIONS			
313301	Upper Section 450 Tower HDG+Red 3m (mast Ømax 62mm)	R	1
313202	Middle Section Reinforced 450 Tower HDG+Red 3m	R	1
313203	Middle Section Reinforced 450 Tower HDG+White 3m	W	1
313102	Middle Section 450 Tower HDG+Red 3m	R	1
313103	Middle Section 450 Tower HDG+White 3m	W	1
313001	Lower Section Pivoting Reinforced 450 Tower HDG+Red 3m	R	1
ACCESSORIES			
3134	Pivoting Embedded/Bolting (with plate) Base 450 Tower Zinc+Red	R	1
313401	Pivoting Embedded/Bolting (with plate) Base 450 Tower HDG	G	1
312901	Surface Plate 450/550 Tower for Pivoting Base (Refs. 3134xx & 3142xx) Zinc+RCP	G	1
313501	Fixed Embedded Base 450 Tower Zinc+RCP	G	1
313502	Fixed Embedded Base 450 Tower HDG	G	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	G	1
314401	Guy Wire Ring 450/550 Tower HDG	G	1
306001	Galvanized Steel Wire Ø 6mm		200

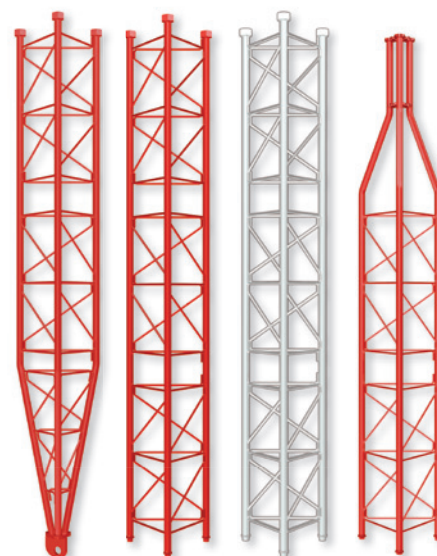


▲ 360 Sections

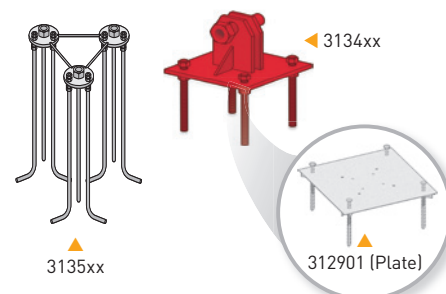


▲ 3088xx

▲ 3089xx



▲ 450 Sections

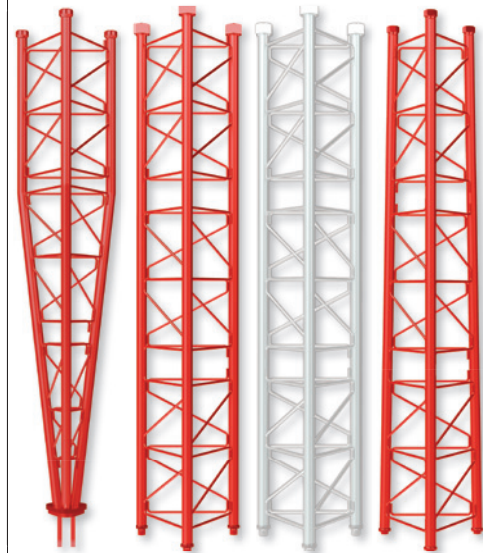


▲ 3135xx

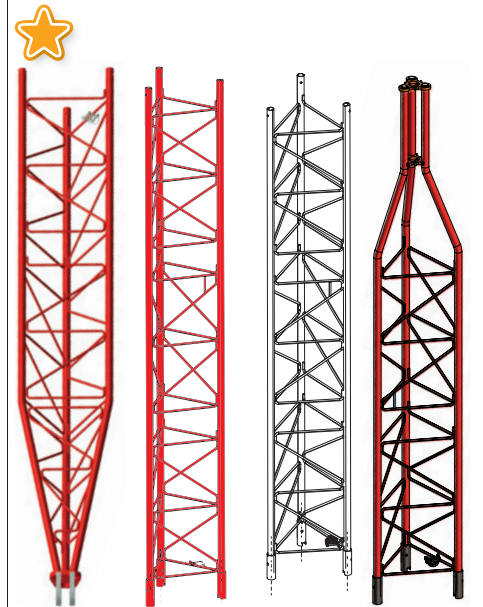
▲ 312901 [Plate]

TOWERS

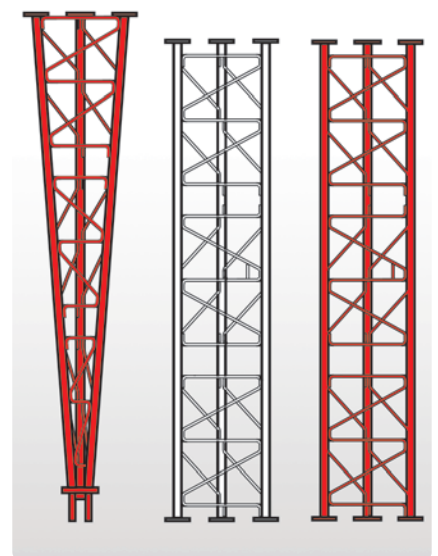
Ref.	Description		
550 TOWER			
ZINC+PAINTING SECTIONS			
3141	Transition Section 550 to 450 Tower Zinc+Red 3m	R	1
3140	Middle Section 550 Tower Zinc+Red 3m	R	1
314001	Middle Section 550 Tower Zinc+White 3m	W	1
313901	Lower Section Pivoting 550 Tower Zinc+Red 3m	R	1
HOT-DIP GALVANIZED+PAINTING SECTIONS			
314101	Transition Section 550 to 450 Tower HDG+Red 3m	R	1
314002	Middle Section 550 Tower HDG+Red 3m	R	1
314003	Middle Section 550 Tower HDG+White 3m	W	1
313902	Lower Section Pivoting 550 Tower HDG+Red 3m	R	1
ACCESSORIES			
3142	Pivoting Embedded/Bolting (with plate) Base 550 Tower Zinc+Red	R	1
314201	Pivoting Embedded/Bolting (with plate) Base 550 Tower HDG+Red	R	1
312901	Surface Plate 450/550 Tower for Pivoting Base (Refs. 3134xx & 3142xx) Zinc+RCP	G	1
3143	Fixed Embedded Base 550 Tower Zinc+RCP	G	1
314301	Fixed Embedded Base 550 Tower HDG	G	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	G	1
314401	Guy Wire Ring 450/550 Tower HDG	G	1
306001	Galvanized Steel Wire Ø 6mm		200
450XL - REINFORCED TOWER ⁽¹⁾			
HOT-DIP GALVANIZED+PAINTING SECTIONS			
★ 313311	Upper Section 450XL Tower HDG+Red 3m (mast Ømax 62mm)	R	1
★ 313112	Middle Section 450XL Tower HDG+Red 3m	R	1
★ 313113	Middle Section 450XL Tower HDG+White 3m	W	1
★ 313212	Middle Section Reinforced 450XL Tower HDG+Red 3m	R	1
★ 313213	Middle Section Reinforced 450XL Tower HDG+White 3m	W	1
★ 313011	Lower Section Pivoting Reinforced 450XL Tower HDG+Red 3m	R	1
ACCESSORIES			
★ 313412	Pivoting Embedded/Bolting (with plate) Base 450XL Tower HDG+Red	R	1
312901	Surface Plate 450/550 Tower for Pivoting Base (Refs. 3134xx & 3142xx) Zinc+RCP	G	1
550XL - REINFORCED TOWER ⁽¹⁾			
HOT-DIP GALVANIZED+PAINTING SECTIONS			
313810	Top Mast Holder 550XL Reinforced Tower HDG+Red 0.25m (mast Ømax 62mm)	R	1
314010	Middle Section 550XL Reinforced Tower HDG+Red 3m	R	1
314011	Middle Section 550XL Reinforced Tower HDG+White 3m	W	1
313911	Lower Section Pivoting 550XL Reinforced Tower HDG+Red 3m	R	1
ACCESSORIES			
314210	Pivoting Embedded Base 550XL Reinforced Tower HDG+Red	R	1
314401	Guy Wire Ring 450/550 Tower HDG	G	1



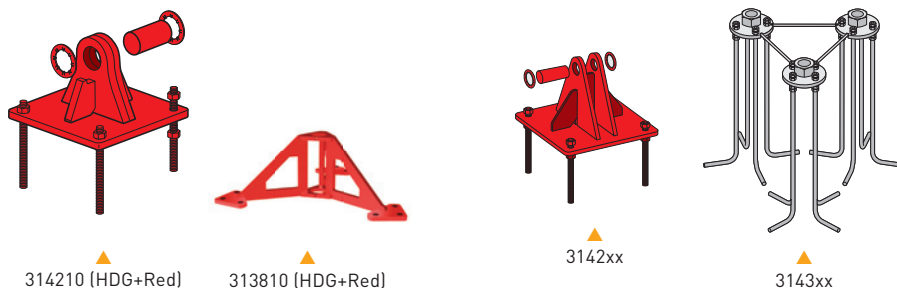
▲ 550 Sections



▲ 450XL Sections



▲ 550XL Sections - Reinforced



(1) Due to its assembly system, sections of these towers are not compatible with the rest of the tower range.

Ref.	Description		
LTE FILTERS			
"EasyF" CONNECTOR (OUTDOORS)			
405202	High Rejection LTE Filter (HR) "EasyF" 47...698MHz VHF/UHF (Ch21-48) Outdoor	LTE700	1/10
405101	Medium Rejection LTE Filter (MR) "EasyF" 470...774MHz UHF (Ch21-58) Outdoor	LTE790	1/10
405402	High Rejection LTE Filter (HR) "EasyF" 47...782MHz VHF/UHF (Ch21-59) Outdoor	LTE790	1/10
405403	High Rejection LTE Filter (HR) "EasyF" 47...782MHz VHF/UHF (Ch21-59) Outdoor (DC Pass)	LTE790	1/10
405401	High Rejection LTE Filter (HR) "EasyF" 47...790MHz VHF/UHF (Ch21-60) Outdoor	LTE790	1/10
"F" CONNECTOR (INDOORS)			
403201	Medium Rejection LTE Filter (MR) "F" 47...694MHz VHF/UHF (Ch21-48), Indoor	LTE700	1/10
403101	Medium Rejection LTE Filter (MR) "F" 470...774MHz UHF (Ch21-58) Indoor	LTE790	1/10
403402	High Rejection LTE Filter (HR) "F" 47...782MHz VHF/UHF (Ch21-59) Indoor	LTE790	1/10
403401	High Rejection LTE Filter (HR) "F" 47...790MHz VHF/UHF (Ch21-60) Indoor	LTE790	1/10
403301	Very High Rejection LTE Microcavities Filter (VHR) "F" 5...782MHz VHF/UHF (Ch21-59) Selective, Indoor	LTE790	1/14
403302	Very High Rejection LTE Microcavities Filter (VHR) "F" 5...790MHz VHF/UHF (Ch21-60) Selective, Indoor	LTE790	1/14
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	G	1/5
"IEC" CONNECTOR: AT800 (INDOOR)		LTE790	
404410	High Rejection LTE Filter (HR) "IEC" 47...782MHz VHF/UHF (Ch21-59) Indoor (Blister S)		10
"IEC" CONNECTOR (INDOOR)		LTE790	
404411	Medium Rejection LTE Filter (MR) "IEC" 470...774MHz UHF (Ch21-58) Indoor (Bag B3)		10
★ 404401	High Rejection LTE Filter (HR) "IEC" 47...782MHz VHF/UHF (Ch21-59) Indoor		10/50
404412	High Rejection LTE Filter (HR) "IEC" 47...790MHz VHF/UHF (Ch21-60) Indoor (Bag B3)		10
COMBINERS		LTE790	
TERRESTRIAL			
404010	Mast Triplexer 3i/1o "EasyF": BI/FM-BIII/DAB-UHF[dc], Outdoor	O	1/10
404011	Mast Triplexer 3i/1o "EasyF": BI/FM-BIII/DAB-UHF[dc], Outdoor Black	B	1/10
404110	Mast Triplexer 3i/1o "EasyF": VHF-UHF[dc]-UHF, Outdoor	O	1/10
TERRESTRIAL + 1 SATELLITE			
745210	Combiner MATV-SAT 2i/1o "F": 47...790-950...2400MHz[dc]		1/10
745220	Mini-Combiner MATV-SAT 2i/1o "F": 47...790-950...2400MHz[dc]		10
417801	Outdoor Case Black Model for Mini Series Dimensions: External 88x78x39mm Internal 57x47x13mm	B	1/10
TERRESTRIAL + 2 SATELLITES			
740710	Double Combiner (47...790/950...2400MHz[dc]) 3i/2o "F": SAT1-MATV-SAT2 / SAT1+MATV-SAT2+MATV		1/10



▲ 405202



▲ 404410 LET'S BE CLEAR 800



▲ 745220



▲ 745210

▲ 740710

LTE ADAPTATION ALL SOLUTIONS FOR ALL CASES



"EasyF" model



Plug-in model
("F" or "IEC" connection)



Filter based on microcavities
Minimal insertion losses

LTE FILTERS

Attenuate the LTE/4G or LTE/5G signals passing through the antenna towards active devices susceptible of being affected by them.

AMPLIFICATION

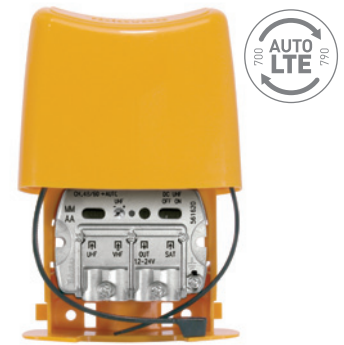
Ref.	Description			
MASTHEAD AMPLIFIERS				
NANOKOM SERIES				
★ 561421	NanoKom Mast Amplifier 3i/1o "EasyF": UHF-UHF[dc]-SATmix[dc] G 30-30- (-1.5)dB Vo 108dBμV 12...24V Powering (Switchable DC Pass)	LTE700	⊙	1/10
★ 561401	NanoKom Mast Amplifier 3i/1o "EasyF": UHF-UHF[dc]-SATmix[dc] G 30-30- (-2.5)dB Vo 107dBμV 12...24V Powering (Switchable DC Pass)	LTE790	⊙	1/10
★ 561521	NanoKom Mast Amplifier 3i/1o "EasyF": BIII/UHF[dc]-FMmix-SATmix[dc] G 18/28- (-1.5) - (-2.5)dB Vo 106/108dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE700	⊙	1/10
561501	NanoKom Mast Amplifier 3i/1o "EasyF": BIII/UHF[dc]-FMmix-SATmix[dc] G 20/29- (-2) - (-2)dB Vo 105/107dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE790	⊙	1/10
561620	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] G 30- (-1) - (-2)dB Vo 107dBμV w/USOS. 12...24V Powering (Automatic LTE Filter & Switchable DC Pass)	AUTO LTE	⊙	1/10
★ 561621	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] G 30- (-1) - (-2)dB Vo 107dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE700	⊙	1/10
561601	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] G 30- (-1) - (-2)dB Vo 107dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE790	⊙	1/10
★ 561721	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-UHF-VHFmix G 30-30- (-1.5)dB Vo 108dBμV 12...24V Powering (Switchable DC Pass)	LTE700	⊙	1/10
561701	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-UHF-VHFmix G 30-30- (-1.5)dB Vo 107dBμV 12...24V Powering (Switchable DC Pass)	LTE790	⊙	1/10
★ 561821	NanoKom Mast Amplifier 3i/1o "EasyF": BIII-UHF[dc]-FMmix G 20-30- (-2)dB Vo 107dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE700	⊙	1/10
561801	NanoKom Mast Amplifier 3i/1o "EasyF": BIII-UHF[dc]-FMmix G 21-29- (-2)dB Vo 107dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE790	⊙	1/10
DOMESTIC POWER SUPPLY UNITS: PICOKOM SERIES				
579401	PicoKom Domestic Power Supply Unit 1i/2o "EasyF" 5...2400MHz 12V-200mA			1/10
5796	PicoKom Domestic Power Supply Unit 1i/1o "EasyF" SATmix: 5...2400MHz 12V-220mA			1/10
DOMESTIC POWER SUPPLY UNITS				
5501	Domestic Power Supply Unit 1i/2o "F": 5...862MHz 12V-220mA			1
KITS: MAST AMPLIFIER + PSU				
567802	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] with USOS + PicoKom PSU 1i/1o "EasyF" 12V-220mA. Kit with Refs.: 561601 & 5796	LTE790	⊙	1
8048	Mast Amplifier 2i/4o "EasyF": UHF/Vmix[dc]-SATmix[dc] + Domest.PSU 1i/2o "F" 12V-220mA (Ref.535401+5501) Black		ⓑ	5
MATV DOMESTIC AMPLIFIERS (47...694/790/862MHz)				
"EasyF" CONNECTOR: PICOKOM SERIES				LTE790
560541	PicoKom Domestic Amplifier 1i/1o "EasyF": 47...790MHz G 14/20dB Vo 102/106dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA			1/10
560542	PicoKom Domestic Amplifier 1i/2o "EasyF": 47...790MHz G 10/16dB Vo 98/102dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA			1/10
560543	PicoKom Domestic Amplifier 1i/(2o+TV) "EasyF": 47...790MHz G 10/16dB Vo 98/102dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA			1/10
"IEC" CONNECTOR				
552741	Domestic Amplifier 1i/1o "IEC": 47...790MHz G 25dB Vo 112dBμV (UK plug)	LTE790		5
552120	Domestic Amplifier 1i/2o "IEC": 47...694MHz G 22dB Vo 104dBμV (Blister T1)	LTE700		8
552840	Domestic Amplifier 1i/(2o+TV) "IEC": 47...790MHz G 20dB Vo 106dBμV + Output TV Outlet G 12dB (Blister T1)	LTE790		8
545720	Domestic Amplifier 1i/(2o+TV) "IEC": 47...694MHz G 20dB Vo 110dBμV + Output TV Outlet G 12dB + Preamp.Pow. 12V-100mA (Blister T1)	LTE700		8
552940	Domestic Amplifier 1i/(4o+TV) "IEC": 47...790MHz G 16dB Vo 102dBμV + Output to a TV Outlet G 11dB (Blister T1)	LTE790		8
"F" CONNECTOR				
552220	Domestic Amplifier 1i/(2o+TV) "F": 47...694MHz G 20dB Vo 110dBμV + Output TV Outlet G 12dB (Blister T1)	LTE700		1
★ 552340	Domestic Amplifier 1i/(4o+TV) "F": 47...790MHz G 16dB Vo 102dBμV + Output to a TV Outlet G 11dB (Blister T1)	LTE790		8
5531	Domestic Amplifier 1i/6o "F": 47...862MHz G 16dB Vo 103dBμV (Blister T1)			8
★ 545801	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F" : 47...694/782MHz G 20dB Vo 101dBμV Auto-Adjustment + Output to a TV Outlet G 11dB + Preamplifier Powering 12V-100mA, UK plug (Blister T1)	AUTO LTE		8
★ 545901	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F" : 47...694/782MHz G 20dB Vo 101dBμV w/USOS + Output to a TV Outlet G 11dB + Preamplifier Powering 12V-100mA	AUTO LTE		1

≡ MAST NANOKOM SERIES



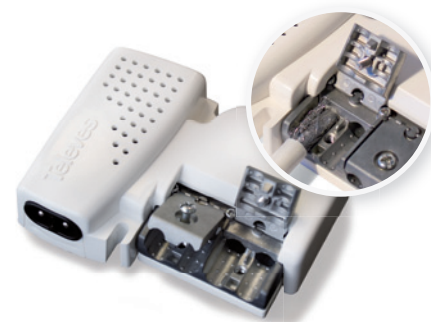
Dimensions: 90 x 80 x 38mm

The ultra-small size series with very low noise figure and automatic output level adjusting (USOS System).



▲ 561620 (with AUTO-LTE filter)

The amplifier is able to automatically switch the LTE filter on to filter channels from 48 (LTE700) to 60 (LTE790) depending on the scenario.



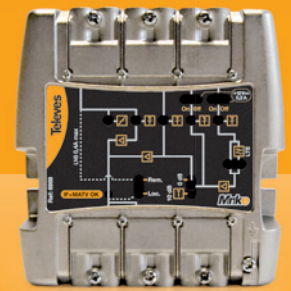
▲ PicoKom Series: Domestic PSU or amplifier 90 x 68 x 28 mm



▲ "F" or "IEC" Connector: Domestic PSU or amplifier 145 x 35 x 45 mm

Ref.	Description	
LAUNCH AMPLIFIERS: MINIKOM "EasyF" SERIES LTE790		
TERRESTRIAL - MATV		
562501	MiniKom Amplifier MATV 3i/1o "EasyF": FM-VHF-UHF G 15-[22 32]-[30 40]dB Vo 113-114-117dB μ V Preamplif. Powering 12V-200mA (Switchable DC Pass)	1
562401	MiniKom Amplifier MATV 4i/1o "EasyF": FM-VHF-UHF-UHF G 15-[22 32]-[26 36]-[26 36]dB Vo 113-114-117-117dB μ V Preamplif. Powering 12V-200mA (Switchable DC Pass)	1
562301	MiniKom Amplifier 5i/1o "EasyF": FM-V-U-21..36-38..60 G 15-[22 32]-[26 36]-[24 34]-[24 34]dB Vo 113-114-117-117-117dB μ V Preamplif. Powering 12V-200mA (Switchable DC Pass)	1
TERRESTRIAL + SATELLITE - SMATV		
562601	MiniKom Amplifier MATV+SAT 4i/1o "EasyF": FM-VHF-UHF-SAT G 15-[21 31]-[27 37]-35dB Vo 114-114-115-119dB μ V Preamplif. Powering 12V-200mA (Switchable DC Pass)	1
LAUNCH AMPLIFIERS: MINIKOM "F" SERIES		
TERRESTRIAL - MATV: LINE		
537302	MiniKom Amplifier MATV 1i/1o "F": 47...454/470...862MHz G (20 30)/[27 37]dB Vo 114/116dB μ V	1
TERRESTRIAL - MATV		
539201	MiniKom Amplifier MATV 4i/1o "F": FM-BIII/DAB-UHF-UHF G 15-[20 30]-[27 37]-[27 37]dB Vo 114-114-117-117dB μ V 12V-70mA Preamplif. Powering	1
RETURN PATH + TERRESTRIAL + SATELLITE - SMATV/CATV: LINE		
531710	MiniKom Amplifier Return Path + MATV + SAT 1i/1o "F": 5..30/47..862/950..2150MHz G -5/30/33..38dB Vo (MATV/SAT) 114/123dB μ V	1
RETURN PATH + TERRESTRIAL + SATELLITE - SMATV/CATV		
5317	MiniKom Amplifier Return Path + MATV + 2SAT 2i/2o "F": (5..30/47..862/950..2150)-(950..2150)MHz G (for 2 outputs) -5/30/33..38dB Vo (MATV/SAT) 114/123dB μ V	1
TERRESTRIAL + SATELLITE - SMATV		
5396	MiniKom Amplifier MATV + SAT 4i/1o "F": BI/FM-BIII-UHF-FI G 33/20-35-40-35..42dB Vo 112-112-115-121dB μ V 12V-70mA Preamplif. Powering	1
5363	MiniKom Amplifier MATV + SAT 2i/1o "F": (47...862)-(950...2150)MHz G -1.5-35..45dB Vo(SAT) 124dB μ V	1
SKY PASS - TERRESTRIAL - MATV		
5372	MiniKom Amplifier Return Path + MATV 2i/(7+1)o "F": FM/VHF-5..7MHz/UHF G 5-0.5/15dB Vo 89-108/89dB μ V (+1 δ 16-15/27dB) 12V 30/10mA Preamplif./IR Powering (UK plug)	1
LAUNCH AMPLIFIERS: DTKOM SERIES		
TERRESTRIAL - MATV: LINE		
5338	DTKom Amplifier MATV 1i/1o "F": 47...862MHz G (41 53)dB Vo 123dB μ V (Remote Powering)	1
TERRESTRIAL - MATV		
534040	DTKom Amplifier MATV 3i/1o "F": FM-BIII-UHF LTE790 G (21 25)-[36 44]-[45 55]dB Vo 123dB μ V 12V-50mA Preamplif. Powering	1
534140	DTKom Amplifier MATV 5i/1o "F": FM-BIII-21..35-38..60-UHF LTE790 G (21 25)-[36 44]-[40 50]-[42 52]-[42 52]dB Vo 123dB μ V 12V-50mA Preamplif. Powering	1
4508	DTKom Amplifier MATV 4i/1o "F": FM-VHF-UHF-UHF G 30-[32 45]-[40 52]-[40 52]dB Vo 129dB μ V 12V-70mA Preamplif. Powering	1
RETURN PATH + TERRESTRIAL + SATELLITE - SMATV/CATV: LINE		
533501	DTKom Amplifier Return Path + MATV + SAT 1i/1o "F": 5..65/87..862/950...2150MHz G 20/[40 53]/42dB Vo 115/124/121dB μ V	1
5337	DTKom Amplifier Return Path + MATV + 2SAT 2i/2o "F": (5..30/47..862/950..2150MHz) - (950..2150MHz) G (for 2 outputs) [-5 28]/[30 40]/40dB Vo 115/120/120dB μ V	1
RETURN PATH + TERRESTRIAL - CATV: LINE		
451203	DTKom Amplifier Return Path + MATV 1i/1o "F": 5...65/87...1006MHz G 28/[30 40]dB Vo 118/129dB μ V	1

MINIKOM EasyF SERIES



▲ Amplifiers
Dimensions: 100 x 100 x 50 mm

High efficiency launch / splitband amplifiers, with selectable gain and LTE rejection.

uk.televes.com/minikom



▲ Amplifiers: MiniKom "F" Series
185 x 112 x 70 mm



▲ Amplifiers: DTKom Series
284 x 140 x 50 mm

AMPLIFICATION

Ref.	Description		
AMPLIFIERS: OUTDOOR SERIES			
RETURN PATH + TERRESTRIAL - CATV			
451310	Outdoor Amplifier Return Path + MATV 35...90Vac Powered 1i/1o 5/8": 5...65/87...1006MHz G (- 128 /30 140)dB Vo 128/118dBµV (Passive/Active Return Path)	1	
5456	Outdoor Power Supply Unit 57Vac - 5A	1	
PROGRAMMABLE AMPLIFIERS : AVANT SERIES			
AVANT 3			
532740	Avant 3: Programmable Amplifier (5 Filters AGC) 5i/2o "F": BI/FM-VHF-2UHF-INmix G 32/15-35-50-3dB Vo 114-114-116-114/116dBµV	LTE790	1
AVANT X (1) AUTO LTE TFORCE			
★ 532101	Avant X Basic with Auto-LTE: Programmable Amplifier with Digital Processing/Filtering (32 Filters) 5i/1o "F": FM-4xVHF/UHF G 29-XXdB Vo 122-122dBµV (DVB-T/T2 Compatible)		1
★ 532111	Avant X Basic-Sat with Auto-LTE: Programmable Amplifier with Digital Processing/Filtering (32 Filters) 6i/2o "F": FM-4xVHF/UHF-SAT G 29-XX-41dB Vo 118-118-123dBµV (DVB-T/T2 Compatible)		1
★ 532121	Avant X Pro with Auto-LTE: Programmable Amplifier with Digital Processing/Filtering (32 Filters) 5i/1o "F": FM-4xVHF/UHF G 25-XXdB Vo 122-122dBµV (DVB-T/T2 Compatible) With Autoprogramming, Monitoring and Report Generation		1
★ 532131	Avant X Pro-Sat with Auto-LTE: Programmable Amplifier with Digital Processing/Filtering (32 Filters) 6i/2o "F": FM-4xVHF/UHF-SAT G 25-XX-41dB Vo 118-118-123dBµV (DVB-T/T2 Compatible) With Autoprogramming, Monitoring and Report Generation		1
ACCESSORIES			
7234	Universal Programmer T.OX/T05/AVANT		1
400610	Line Amplifier UHF 1i/1o "F": 470...790MHz G 13dB Vo 98dBµV (Plug-in)		1/10
4007	Notch Filter "F" UHF (Ch21-69) 1 Channel & 1 Adjustment		1/10
4162	Notch Filter "IEC" BI/FM/BIII/UHF 2 Channels & 2 Adjustments		1/10
4061	Terminal Load "F" 75Ohm with DC Blocked		10/200



▲ Amplifiers: Outdoor Series
290 X 220 X 100 mm



▲ Programmable Amplification: Avant 3
198 x 119 x 65 mm



Use ASuite to program the Avant X, a simple and intuitive application for Android and PC.

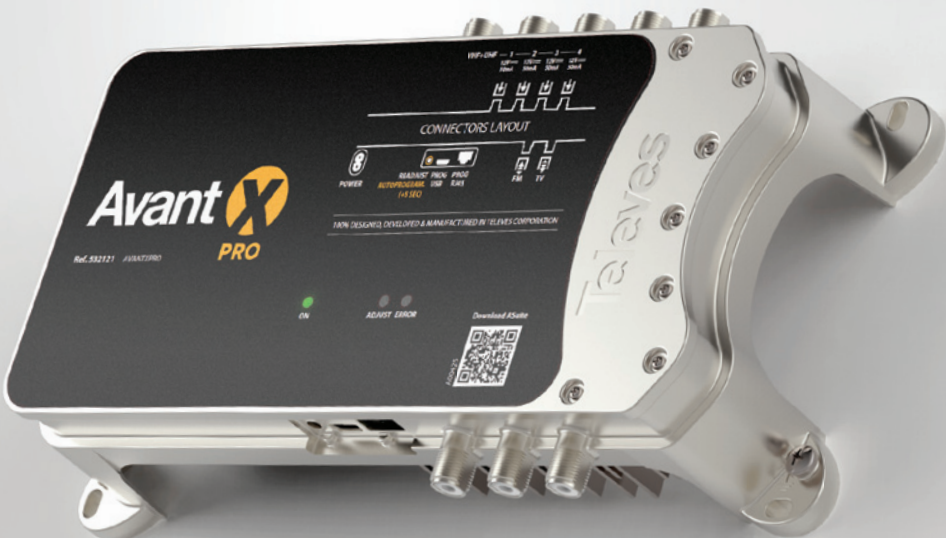
(1) OTG cable for an ASuite programming included in all the AVANT X versions



AVANT X PROGRAMMABLE HEADEND AMPLIFIER DIGITAL FILTERING AND PROCESSING

A NEW EVOLUTIVE STAGE

DIGITAL PROCESSING TECHNOLOGY IMPLEMENTED ON TERRESTRIAL TV SIGNALS



Setting the internal filters according to the type of signal LTE (4G/5G)



Compatible with **DVB-T DVB-T2**



Terrestrial signal level always stable and adapted to its optimum value



UP TO 32 INDIVIDUALLY PROGRAMMABLE FILTERS

Single channel digital filtering, even for adjacent channels



DIGITAL PROCESSING OF CHANNELS

Output channels can be frequency shifted



AUTOMATIC SIGNAL ADJUSTMENT IN EACH FILTER (AGC)

And output signal manual regulation



UHF/VHF DIGITAL FILTERS WITH HIGH SELECTIVITY

30dB rejection (@ 1MHz)

Ref.	Description	
SINGLE CHANNEL AMPLIFIERS: T12 SERIES		
SINGLE CHANNEL AMPLIFIERS		
508212	T12 Single Channel Amplifier FM 88..108MHz G 35dB Vo 114dBμV	1
509912	T12 Single Channel Amplifier DAB 195..232MHz G45dB Vo114dBμV	1
509812	T12 Single Channel Amplifier UHF High Selectivity 470...862MHz G 55dB Vo 125dBμV	LTE700 / LTE790 1
POWER SUPPLY UNITS		
549812	T12 Switch-mode Power Supply Unit 60W 24V-2.5A	1
SUPPORTS & ENCLOSURES		
5071	Wall Mount 498mm (1 PSU + 7 T.0X Modules or 10 T12/T05 Modules) ⁽¹⁾	1
5239	Wall Mount 560mm (1 PSU + 8 T.0X Modules or 12 T12/T05 Modules) ⁽¹⁾	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.0X Modules or 10 T12/T05 Modules) ⁽¹⁾	1
5072	Lockable Cabinet 498mm (1 PSU + 10 Modules T12/T05) ⁽¹⁾	1
5069	Lockable Cabinet 648mm (1 PSU + 14 T12/T05 Modules) ⁽¹⁾	1
5332	19" Rack Cabinet 37RU. Ventilation, Wheels, Glazed Door	1
ACCESSORIES		
400610	Line Amplifier UHF 1i/1o "F": 470...790MHz G 13dB Vo 98dBμV (Plug-in)	1/10
4007	Notch Filter "F" UHF (C21-69) 1 Channel & 1 Adjustment	1/10
4162	Notch Filter BI/FM/BIII/UHF 2 Channels & 2 Adjustments "IEC"	1/10
4005	Adjustable Attenuator "F" 0 to 20dB 5...2200MHz DC Pass	1/10
5074	T12 "F" Connector Link Push Fit Type, 48mm	10
4061	Terminal Load "F" 75Ohm with DC Blocked	10/200



▲ 509812

▲ 549812



▲ 5301

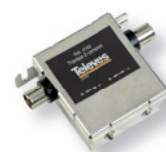
▲ 549812



▼ 5072



▼ 5069



▲ 4162



▲ 400610

(1) The number of modules indicated is based solely on the available space; but the number of installable modules may be limited by other restrictions such as consumption or temperature.

Ref.	Description	
T.OX SERIES		
SMATV HEADENDS		
563101	T.OX Transmodulator DVBS/S2-COFDM (BIII/UHF)	1
563301	T.OX Transmodulator DVBS/S2-COFDM CI (BIII/UHF) ⁽¹⁾	1
564201	T.OX Transmodulator DVBS/S2-COFDM CI (UHF) Multiplexer: 3 Transponders(2Sat) :1Ch or 3 Transponders(1Sat+LoopThru) :1Ch ⁽¹⁾	1
564301	T.OX Twin Transmodulator DVBS/S2-COFDM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :2Ch or 3 Transponders(1Sat+LoopThru) :2Ch ⁽¹⁾	1
563001	T.OX Twin Transmodulator DVBS/S2-QAM (47...862MHz)	1
564501	T.OX Hexa Transmodulator DVBS/S2-QAM (47...862MHz)	1
563501	T.OX Transmodulator DVBS/S2-QAM CI (47...862MHz) ⁽¹⁾	1
564101	T.OX Transmodulator DVBS/S2-QAM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :1C or 3 Transponders(1Sat+LoopThru) :1Ch ⁽¹⁾	1
564401	T.OX Twin Transmodulator DVBS/S2-QAM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :2Ch or 3 Transponders(1Sat+LoopThru) :2Ch ⁽¹⁾	1
553701	T.OX Twin Transmodulator QPSK-PAL CI Stereo (VSB 47...862MHz) ⁽¹⁾	1
553702	T.OX Twin Transmodulator QPSK/PAL CI Stereo (VSB 47...862MHz) Pro CAM compatible. Simultaneous decryption of 2 services ^{(1) (2)}	1
MATV HEADENDS		
566001	T.OX Encoder/Modulator Single 1i: HDMI / Component(YPbPr) / CVBS - 1Mux: COFDM/QAM (MPEG2/4) (Standalone support + PSU 18V included)	1
566011	T.OX Encoder/Modulator Twin, 2i: CVBS - 1Mux: COFDM/QAM (MPEG2) (Standalone Support + PSU18V included)	1
563822	T.OX Encoder/Modulator Quad, 4i A/V: CVBS - 1Mux: COFDM/QAM (MPEG2/4)	1
563832	T.OX Encoder/Modulator Twin, 2i: HDMI / Component (YPbPr) - 1Mux: COFDM/QAM (MPEG2/4)	1
563852	T.OX Encoder/Modulator IP Twin (MPEG2/4), 2 Modes: 2i: HDMI / Component(YPbPr) / CVBS - 1Mux: IP/COFDM/QAM 2i: HDMI / Component(YPbPr) / CVBS / IP - 1Mux: COFDM/QAM	1
565101	T.OX Twin Transmodulator DVBT/T2-COFDM CI (47...862MHz) Multiplexer: 2 Channels (DVB-T/T2) : 2 Channels (DVB-T) ⁽¹⁾	1
565201	T.OX Twin Transmodulator DVBT/T2-QAM CI (47...862MHz) Multiplexer: 2 Channels (DVB-T/T2) : 2 Channels (DVB-T) ⁽¹⁾	1
564901	T.OX Twin Processor Analogue/Digital Channel (47...862MHz)	1
5806	T.OX Twin Modulator Analogue A/V-PAL Stereo (VSB 47...862MHz)	1
★ 580610	T.OX Twin Modulator Analogue A/V-PAL Mono (VSB 47...862MHz)	1
POWER SUPPLY UNITS		
562802	Power Supply Unit 38.4W 24V-1.6A (T.OX standalone mounting)	1
562910	T.OX Switch-mode Power Supply Unit 60W 24V-2.5A	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
AMPLIFIER		
5575	T.OX Amplifier Push-Pull 47...862MHz G 44dB Vo 120dBμV	1
COMBINER		
565002	Combiner 7i/1o: 5...1002MHz, 19" Rack Mount, 1RU	1



▲ 564201 ▲ 564301



▲ T.OX Encoders

Generate your own DTT content in High Definition.



▲ 565101 ▲ 565201



▲ 580610 ▲ 564501 ▲ 565002

(1) In case of modules with CI, it is the responsibility of the installer to consult Televes and check compatibility of CAM and card with the module.
(2) If CAM and card allow it.

Ref.	Description	
PROCESSING HEADENDS		
REMOTE CONTROL, PROGRAMMER & SW		
5559	T.OX Headend Management Unit CDC IP	1
555901	T.OX Headend Management Control CDC IP/GSM	1
★ 555911	T.OX Headend Management Control CDC IP/3G	1
7234	Universal Programmer T.OX/T05/AVANT	1
216801	Kit: PC-Module Cable & USB-Serial Adapter Utilities: TSuite (T.OX, T05)	1
SUPPORTS & ENCLOSURES		
567401	Standalone Support (1 T.OX Module)	1
5071	Wall Mount 498mm (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules) ⁽¹⁾	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules) ⁽¹⁾	1
★ 507204	Lockable Cabinet with Forced Ventilation 327mm (1 PSU + 4 T.OX Modules) ⁽¹⁾	1
★ 507203	Lockable Cabinet with Forced Ventilation 498mm (1 PSU + 7 T.OX Modules) ⁽¹⁾	1
5332	19" Rack Cabinet 37RU. Ventilation, Wheels, Glazed Door	1
ACCESSORIES		
5673	T.OX Blank Plate 50mm - 5RU	1
533153	T.OX Panel for Rack 19" 1RU, Up to 2x7 "F" connectors	1
4061	Terminal Load "F" 750hm with DC Blocked	10/200
4071	DC Blocker "F"	10
422601	Patch Cable for Powering T.OX from T05 0.4m	1/5



▲ 5071



▲ Pre-assembled Rack Cabinet (on request)



▲ 567401



▲ 5301



▲ 422602



★ 555911



▲ 5559

▲ 555901



★ 507204



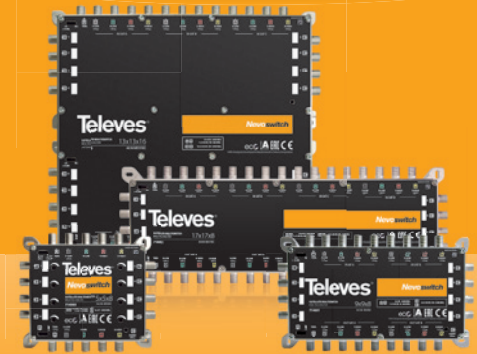
★ 507203 (T.OX units not included)

(1) The number of modules indicated is based solely on the available space; but the number of installable modules may be limited by other restrictions such as consumption or temperature.

MULTISWITCHES

Ref.	Description	
NEVOSWITCH SERIES: STAND ALONE & CASCADE MULTISWITCHES ⁽¹⁾ ⁽²⁾		
5 INPUTS (1 SATELLITE + TERRESTRIAL)		
★ 714501	Multiswitch 5x5x4 "F" Terminal/Cascade	1
★ 714502	Multiswitch 5x5x6 "F" Terminal/Cascade	1
714503	Multiswitch 5x5x8 "F" Terminal/Cascade	1
714504	Multiswitch 5x5x12 "F" Terminal/Cascade	1
714505	Multiswitch 5x5x16 "F" Terminal/Cascade	1
714506	Multiswitch 5x5x24 "F" Terminal/Cascade	1
714507	Multiswitch 5x5x32 "F" Terminal/Cascade	1
714508	Amplifier 5x5 "F" MATV/IF G 12/15dB Vo 110dBµV	1
714509	Amplifier 5x5 "F" MATV/IF G 27/25dB Vo 110dBµV	1
714906	Tap 5x5x5 "F" 8dB	1
714901	Tap 5x5x5 "F" 12dB	1
714902	Tap 5x5x5 "F" 15dB	1
714903	Tap 5x5x5 "F" 20dB	1
714904	Tap 5x5x5 "F" 25dB	1
714905	Splitter 5x5x5 4/4dB	1
5 INPUTS (1 SATELLITE + TERRESTRIAL) - QUAD COMPATIBLE		
714413	Quad Compatible Multiswitch 5x5x8 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714414	Quad Compatible Multiswitch 5x5x12 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714415	Quad Compatible Multiswitch 5x5x16 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714416	Quad Compatible Multiswitch 5x5x24 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714417	Quad Compatible Multiswitch 5x5x32 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
5 INPUTS (1 SATELLITE + TERRESTRIAL) - dCSS TECHNOLOGY ^{FORCE}		
714101	dCSS Multiswitch 5x5x2 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial	1
714102	dCSS Multiswitch 5x5x4 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial	1
★ 714103	dCSS Multiswitch 5x5x8 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial	1
★ 714104	dCSS Multiswitch 5x5x12 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial	1
★ 714105	dCSS Multiswitch 5x5x16 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial	1
9 INPUTS (2 SATELLITES + TERRESTRIAL)		
714601	Multiswitch 9x9x8 "F" Terminal/Cascade	1
714602	Multiswitch 9x9x12 "F" Terminal/Cascade	1
714603	Multiswitch 9x9x16 "F" Terminal/Cascade	1
714604	Multiswitch 9x9x24 "F" Terminal/Cascade	1
714605	Multiswitch 9x9x32 "F" Terminal/Cascade	1
714609	Amplifier 9x9 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBµV	1
9 INPUTS (2 SATELLITES + TERRESTRIAL) - QUAD COMPATIBLE		
714211	Quad Compatible Multiswitch 9x9x8 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714212	Quad Compatible Multiswitch 9x9x12 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
714213	Quad Compatible Multiswitch 9x9x16 "F" Terminal/Cascade (12V-1.5A PSU with <i>UK plug</i> included)	1
13 INPUTS (3 SATELLITES + TERRESTRIAL)		
714701	Multiswitch 13x13x8 "F" Terminal/Cascade	1
714702	Multiswitch 13x13x12 "F" Terminal/Cascade	1
714703	Multiswitch 13x13x16 "F" Terminal/Cascade	1
714704	Multiswitch 13x13x24 "F" Terminal/Cascade	1
714705	Multiswitch 13x13x32 "F" Terminal/Cascade	1
714709	Amplifier 13x13 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBµV	1
17 INPUTS (4 SATELLITES + TERRESTRIAL)		
714801	Multiswitch 17x17x8 "F" Terminal/Cascade	1
714802	Multiswitch 17x17x12 "F" Terminal/Cascade	1
714803	Multiswitch 17x17x16 "F" Terminal/Cascade	1
714804	Multiswitch 17x17x24 "F" Terminal/Cascade	1
714805	Multiswitch 17x17x32 "F" Terminal/Cascade	1
714809	Amplifier 17x17 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBµV	1

NEVOSWITCH SERIES



Scalable multiswitches range, european design, manufacturing and quality.

uk.televés.com/nevoswitch

THE NEW AND INNOVATIVE NEVOSWITCH IMPLEMENTING dCSS TECHNOLOGY, WITH DCFLEX FUNCTIONALITY



DCFLEX gives complete flexibility when choosing how to power the dCSS NevoSwitch to suit any installation scenario. This versatility is achieved by a toggle switch that can isolate the multiswitch from the cascade's DC power configuration.

uk.televés.com/dcssnevoswitch



▲ 714211

(1) Output earth bonding bars included.

(2) PSU is only included in Quad compatible versions.

MULTISWITCHES

Ref.	Description	
------	-------------	--

NEVOSWITCH SERIES: STAND ALONE & CASCADE MULTISWITCHES

POWER SUPPLY UNITS

732101	Power Supply Unit 12V-0.8A	1
732210	Power Supply Unit 12V-1.5A (UKplug)	1
732802	Power Supply Unit 12.5V-2.8A	1
732010	Power Supply Unit 18V-2A (dCSS NevoSwitch, UKplug)	1

BONDING BARS

993810	Earth Bonding Bar 4 Connectors (9x/13x/17x NevoSwitch compatible)	1
993811	Earth Bonding Bar 5 Connectors (5x/9x/13x/17x NevoSwitch compatible)	1

CABINETS AND ACCESSORIES

CABINETS

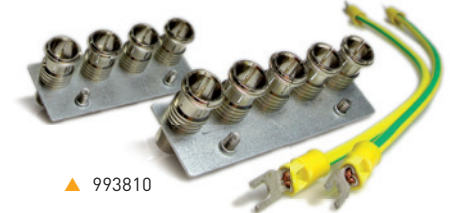
5894	Perforated Mounting Plate 300x400mm, Distance from the wall 19mm	1
589401	Perforated Mounting Plate 400x400mm, Distance from the wall 19mm	1
589402	Perforated Mounting Plate 400x600mm, Distance from the wall 19mm	1
5893	Indoor Lockable Cabinet with Mounting Plate, Dimensions: 300x400x200mm	1
589301	Indoor Lockable Cabinet with Mounting Plate, Dimensions: 400x400x200mm	1
589302	Indoor Lockable Cabinet with Mounting Plate, Dimensions: 400x600x200mm	1
589303	Indoor Lockable Cabinet with Mounting Plate, Dimensions: 600x600x200mm	1
589304	Indoor Lockable Cabinet with Mounting Plate, Dimensions: 600x800x200mm	1
5749	Outdoor Lockable Cabinet (IP66 Standard), Dimensions: 600x380x210mm	1

ACCESSORIES

3821	Adapter "Quick F" Male - "F" Male, Plastic Box	50/500
4174	Set of 5 Colour Coded Leads "Quick F" 260mm	1
★ 732150	DC Cable "F"-"Jack" Female 0,4m	1
3850	Coaxial Cable Lead "F" Compression 280mm White	Ⓜ 20
385001	Coaxial Cable Lead "F" Compression 330mm White	Ⓜ 20
385002	Coaxial Cable Lead "F" Compression 390mm White	Ⓜ 20
385004	Coaxial Cable Lead "F" Compression 430mm White	Ⓜ 20
385003	Coaxial Cable Lead "F" Compression 500mm White	Ⓜ 20

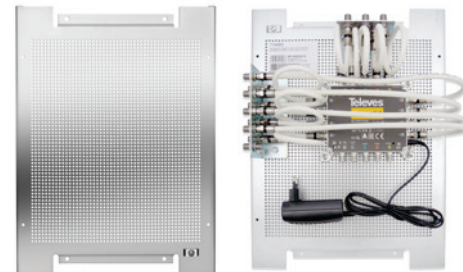


732010



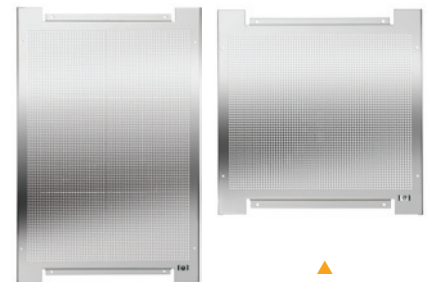
993810

993811



5894

Mounting with ref. 5894



589402

589401



5893



732150



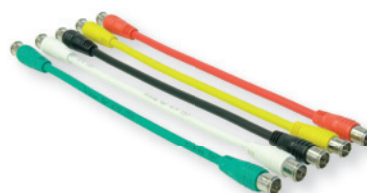
3850xx



3821



5749



4174

FIBRE OPTICS

Ref.	Description	
T.OX SERIES		
TRANSMISSION & RECEPTION		
233306	T.OX Optical Transmitter SMATV 1310nm "SC/APC" Po 6dBm w/o Return Path	1
233311	T.OX Optical Transmitter SMATV 1310nm "SC/APC" Po 10dBm w/o Return Path	1
234801	T.OX Optical Transmitter CATV 1310nm "SC/APC" Po 10dBm w/o Return Path RF Automatic Adjustment and Temperature Stability	1
234305	T.OX Optical Transmitter SMATV 1550nm "SC/APC" Po 5dBm w/o Return Path	1
234806	T.OX Optical Transmitter CATV 1550nm "SC/APC" Po 6dBm w/o Return Path External modulation and RF Automatic Adjustment (up to 30Km). DOCSIS 3.1 compatible	1
234811	T.OX Optical Transmitter CATV 1550nm "SC/APC" Po 10dBm w/o Return Path RF Automatic Adjustment and Temperature Stability	1
2335	T.OX Optical Receiver SMATV 1200...1600nm "SC/APC" w/o Return Path	1
234901	T.OX Return Path Optical Receiver (5...300MHz) 1270...1650nm "SC/APC", with AGC	1
SPLITTERS		
2337	T.OX Optical Splitter 1260...1650nm "SC/APC" 2W 4dB	1
2339	T.OX Optical Splitter 1260...1650nm "SC/APC" 4W 7dB	1
234401	T.OX Optical Splitter 1260...1650nm "SC/APC" 8W 10dB	1
234501	T.OX Optical Splitter 1260...1650nm "SC/APC" 16W 14dB	1
234601	T.OX Optical Splitter 1260...1650nm "SC/APC" 32W 17dB	1
POWER SUPPLY UNITS		
562910	T.OX Switch-mode Power Supply Unit 60W 24V-2.5A	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
AMPLIFIERS		
234220	T.OX Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology)	1
234221	T.OX Optical Amplifier / Multiplexer "SC/APC" 19dBm (EDFA Technology) 2i: 1310/1490nm - 1550nm, 1o: 1310/1490/1550nm	1
234228	T.OX Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 9i: 8x1310/1490nm - 1x1550nm, 8o: 8x1310/1490/1550nm	1
MULTIPLEXER / DEMULTIPLEXER (WDM)		
234701	T.OX Optical Multiplexer / Demultiplexer 1i/2o "SC/APC": GPON+RF: Data (1310/1490nm) - TV (1550nm)	1
234702	T.OX Optical Multiplexer / Demultiplexer 1i/2o "SC/APC": RFoG: Uplink (1610nm) - Downlink (1550nm)	1
SUPPORTS & ENCLOSURES		
5071	Wall Mount 498mm (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules) ⁽¹⁾	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules) ⁽¹⁾	1
★ 507204	Lockable Cabinet with Forced Ventilation 327mm (1 PSU + 4 T.OX Modules) ⁽¹⁾	1
★ 507203	Lockable Cabinet with Forced Ventilation 498mm (1 PSU + 7 T.OX Modules) ⁽¹⁾	1
5332	19" Rack Cabinet 37RU. Ventilation, Wheels, Glazed Door	1
ACCESSORIES		
5673	T.OX Blank Plate 50mm - 5RU	1
4061	Terminal Load "F" 75ohm with DC Blocked	10/200
4071	DC Blocker "F"	10



▲ 234806 ▲ 234801/234811



▲ 234401 ▲ 234501 ▲ 234601



▲ 234221 ▲ 234228



▲ 234701 ▲ 234702



▲ 562910 ▲ 5629

(1) The number of modules indicated is based solely on the available space; but the number of installable modules may be limited by other restrictions as consumption or temperature.

FIBRE OPTICS

Ref.	Description	
19" RACK FORMAT		
TRANSMISSION & RECEPTION		
★ 769902	Optical Transmitter SMATV 1310nm "SC/APC" Po 6dBm w/o Return Path, 19" Rack Mount, 1RU	1
★ 769903	Optical Transmitter SMATV 1310nm "SC/APC" Po 10dBm w/o Return Path, 19" Rack Mount, 1RU	1
STANDALONE FORMAT		
TRANSMISSION & RECEPTION		
★ 238201	FiberKom Optical Transmitter SMATV 1310nm "SC/APC" Po 3dBm w/o Return Path	1
F.O. DISTRIBUTION (OPTICAL NODES)		
OPTICAL NODES (OUTDOOR)		
231020	Outdoor Optical Node 1200...1600nm "SC/APC" Return Path 1610nm with Amplifier 2o: 87...1006MHz, OLC Technology (Local Powering) ⁽¹⁾	1
231220	Outdoor Optical Receiver 1200...1600nm "SC/APC" without Return Path with Amplifier 2o: 40...1006MHz, OLC Technology (Local Powering) ⁽¹⁾	1
231201	Outdoor Optical Receiver 1200...1600nm "SC/APC" without Return Path with Amplifier 1o: 87...862/950...2150MHz (Local Powering)	1
OPTICAL MINI-NODES: FIBERKOM SERIES		
238001	FiberKom Optical Mini-node 1200...1600nm "SC/APC" Return Path 1310nm (2 Fibres) with Amplifier 87...1218MHz DOCSIS 3.1 Compatible. OLC Technology (Local Powering) ⁽¹⁾	1
238004	FiberKom Optical Mini-node 1550nm "SC/APC" Return Path 1610nm (1 Fibre) with Amplifier 87...1218MHz DOCSIS 3.1 Compatible. OLC Technology (Remote Powering) ⁽¹⁾	1
238005	FiberKom Optical Mini-node 1550nm "SC/APC" Return Path 1610nm (1 Fibre) with Amplifier 87...1218MHz DOCSIS 3.1 Compatible. OLC Technology (Local Powering) ⁽¹⁾	1
238101	FiberKom Optical Mini-receiver 1200...1600nm "SC/APC" without Return Path (1 Fibre) with Amplifier 47...1006MHz, OLC Technology (Remote Powering) ⁽¹⁾	1
OPTICAL MICRO-NODES		
231111	Domestic Optical Receiver 1550nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology ⁽¹⁾	1
231110	Domestic Optical Receiver 1200...1600nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology ⁽¹⁾	1
2311	Domestic Optical Receiver 1200...1600nm "SC/APC" with Amplifier 87...862/950...2400MHz with Automatic Adjustment	1



▲ 769902



▲ 769903



▲ 238201



▲ Mini-Node: FiberKom Series
185 x 80 x 35 mm



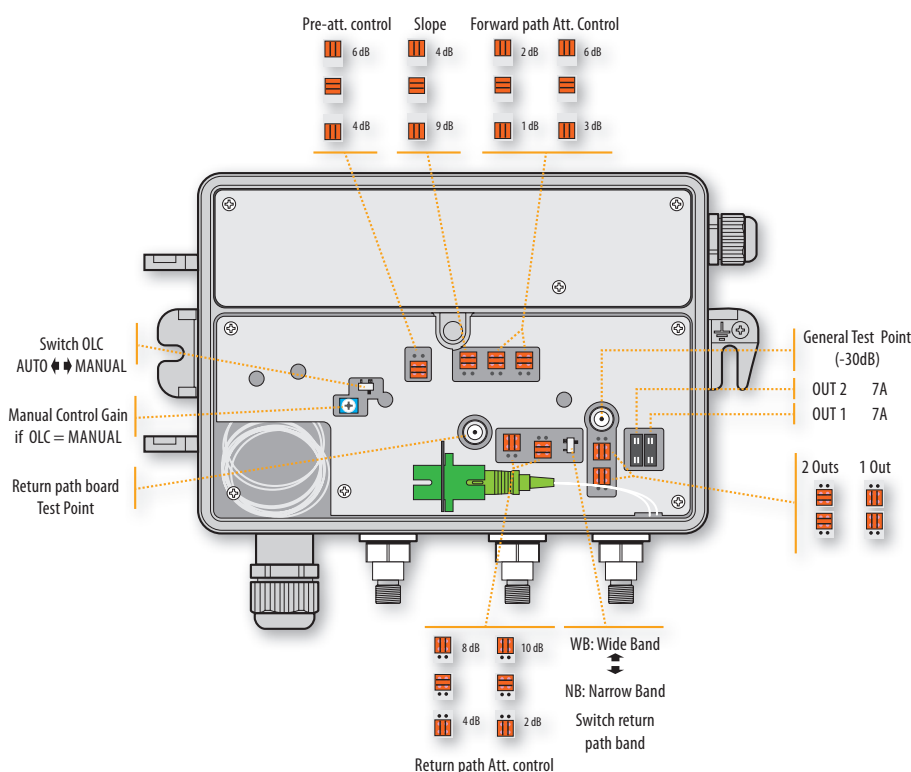
▲ Micro-Node:
145 x 60 x 35 mm



▲ Outdoor Node:
232 x 140 x 90 mm



Optical node: Configuration Scheme



(1) OLC Technology: Optical Level Control.

FIBRE OPTICS

Ref.	Description	
------	-------------	--

F.O. DISTRIBUTION

RACKS AND ACCESSORIES

533106	19" Rack Cabinet 6RU (+2RU extra). Glazed Door and Accesible from the side. Wall/Ground Mount	1
533108	19" Rack Cabinet 8RU (+2RU extra). Glazed Door and Accesible from the side. Wall/Ground Mount	1
533113	19" Rack Cabinet 13RU (+2RU extra). Glazed Door and Accesible from the side. Wall/Ground Mount	1
533117	19" Rack Cabinet 17RU (+2RU extra). Glazed Door and Accesible from the side. Wall/Ground Mount	1
533124	19" Rack Cabinet 24RU (+2RU extra). Glazed Door and Accesible from the side. Ground Mount	1
533150	Panel for Rack 19" Mount 1RU, Up to 24 "F" Connectors	1
533153	T.OX Panel for Rack 19" 1RU, Up to 2x7 "F" connectors	1
533151	Panel for Rack 19" Mount 1RU, Up to 24 "RJ45" Connectors	1
533154	Cable Management for Rack 19" 1RU, 5 Holes	1
533156	Cable Management for Rack 19" 1RU, 5 Rings	1
533152	Splice Box for Rack 19" Mount 1RU, Up to 24 "SC" Connectors	1
533155	Tray for Rack 19" 2RU (Depth 265mm)	1
533161	Blank Panel for Rack 19" 1RU	1
533163	Blank Panel for Rack 19" 3RU	1
533165	Blank Panel for Rack 19" 5RU	1
533170	Screw Kit for Rack 19": Screw with washer and nut (50 units)	1

ENCLOSURES

233002	Main Terminal Enclosure for F.O., Indoor (Up to 48 "SC/APC" connectors)	1
233003	Stackable Main Enclosure for F.O., Indoor (Up to 48 "SC/APC" connectors)	1
231302	Splitting Terminal Enclosure for F.O., Indoor (Up to 24 fibres)	1
231301	Splitting Terminal Enclosure for F.O., Indoor (Up to 16 fibres)	1
231310	Splitting Terminal Enclosure for F.O., Indoor (Up to 8 fibres)	1
546701	Data/Coaxial/Fibre Network Terminal Enclosure	1

PATCH BOXES

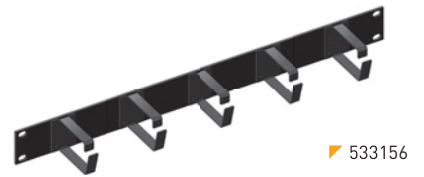
231502	F.O. Patch/Splitting Box 2 to 4 Outs ("SC/APC" Female - Female adapters included) ⁽¹⁾	1
231520	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 15m on one end ^{(1) (2)}	1
231521	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 25m on one end ^{(1) (2)}	1
231522	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 40m on one end ^{(1) (2)}	1
231523	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 55m on one end ^{(1) (2)}	1
231524	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 70m on one end ^{(1) (2)}	1
231525	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 85m on one end ^{(1) (2)}	1
231526	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Fibres of 100m on one end ^{(1) (2)}	1
231530	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 15m on one end ^{(1) (2)}	1
231531	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 25m on one end ^{(1) (2)}	1
231532	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 40m on one end ^{(1) (2)}	1
231533	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 55m on one end ^{(1) (2)}	1
231534	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 70m on one end ^{(1) (2)}	1
231535	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 85m on one end ^{(1) (2)}	1
231536	F.O. Patch Box 4 Outs: 4 Pre-terminated Fibres of 100m on one end ^{(1) (2)}	1



▲ 533113
600 x 690 x 400mm



▲ 533152
480 x 43 x 230mm



▲ 533156



▲ 233003
444 x 180 x 125 mm



▲ 233002
454 x 358 x 95 mm

▲ 231302
206 x 300 x 110 mm



▲ 231301
153 x 264 x 67 mm



▲ 231310
203 x 106 x 30 mm

(1) "SC/APC" (Female - Female) Adapters and dispenser box included.

(2) ITU-T G657A2 single-mode fibres.

Types of Rack Cabinets

Ref.	Dimensions (mm)
533106	600 x 380 x 400
533108	600 x 460 x 400
533113	600 x 690 x 400
533117	600 x 870 x 400
533124	600 x 1200 x 600



▲ 23152x / 23153x

FIBRE OPTICS

Ref.	Description		
F.O. CABLES (ITU-T G657A2)			
MULTI-FIBRE CABLES (FIBRE'S TIGHT BUFFER Ø 250µm)			
231612	Multi-fibre Cable 24 Single-mode Fibres LSFH	○	By m
231712	Multi-fibre Cable 48 Single-mode Fibres LSFH	○	By m
MULTI-FIBRE CABLES (FIBRE'S TIGHT BUFFER Ø 900µm)			
231802	Multi-fibre Cable 12 Single-mode Fibres LSFH	○	By m
231603	Multi-fibre Cable 24 Single-mode Fibres LSFH	○	By m
231702	Multi-fibre Cable 48 Single-mode Fibres LSFH	○	By m
4 FIBRE CABLES (FIBRE'S TIGHT BUFFER Ø 250µm)			
231911	4 Fibre Cable Single-mode Indoor LSFH	○	300
2 FIBRE CABLES (FIBRE'S TIGHT BUFFER Ø 900µm)			
231901	2 Fibre Cable Single-mode Indoor LSFH Dca	○	300
231902	2 Fibre Cable Single-mode Indoor LSFH Dca	○	750
232001	2 Fibre Cable Single-mode Outdoor LSFH Dca	ⓑ	200
232002	2 Fibre Cable Single-mode Outdoor LSFH Dca	ⓑ	500
PRE-TERMINATED PATCH CORDS (Ø 3mm)			
232622	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC" - "SC/PC" 0.2m		5
232621	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 2m (Bag B4)		10
232640	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 10m		1
232641	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 15m		1
232642	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 20m		1
232643	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 25m		1
232644	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 30m		1
232645	F.O. Duplex Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 40m		1
ACCESSORIES			
2328	Mechanical Splices of Fibre Optics (for Mechanical Splicer)		10
232602	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 2m (ITU-T G657A2, 900µm) Convertible to Pigtail		25
233203	Adapter "SC/APC" Female - "SC/APC" Female, with Auto-blocking Cap		25
★ 233210	Twin Adapter "SC/APC" Female - "SC/APC" Female, with Auto-blocking Cap		20/1000
212001	Optical Fibre Dispenser, Small model (plastic drums) ⁽¹⁾		1
212011	Optical Fibre Dispenser, Large model (plastic drums) ⁽²⁾		1

"By m" = Cut to length



▲ 2120xx
(Cable drum not included)



▲ 23264x:
Duplex patch cord



▲ 232621:
Patch cord



▲ 233210



▲ 2328



▲ 233203

F.O. CABLES

Fibre's tight buffer Ø 250µm



▲ 48 Fibres
(231712)



▲ 24 Fibres
(231612)



▲ 4 Fibres - Indoor
(231911)



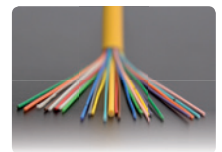
Fibre's tight buffer Ø 900µm



▲ 48 Fibres
(231702)



▲ 24 Fibres
(231603)



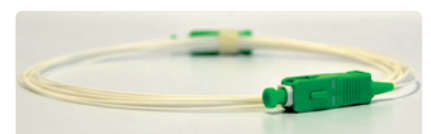
▲ 12 Fibres
(231802)



▲ 2 Fibres - Indoor
(231901 / 231902)



▲ 2 Fibres - Outdoor
(232001 / 232002)



▲ 232602

(1) For 2 fibre cable in 200 or 300m drum.

(2) For 2 fibre cable in 500 or 750m drum.

FIBRE OPTICS

Ref.	Description		
F.O. DISTRIBUTION (OPTICAL LNB)			
OPTICAL LNBs			
2353	Offset Optical LNB 1310nm "FC/PC" G 72dB Po 7dBm (Up to 32 converters), Grey	G	1
OPTICAL FIBRE / RF CONVERTERS: SATELLITE + TERRESTRIAL			
236801	RF/Optical Converter ODU32 1310nm "F"- "N"- "FC/PC": DAB/UHF-SAT + Offset LNB + AC/DC Adapter + Interconnection Accessories		1
236810	RF/Optical Converter ODU32 1550nm "F"- "N"- "FC/PC": DAB/UHF-SAT + Offset LNB + AC/DC Adapter + Interconnection Accessories		1
237201	dCSS Optical/RF Converter GTU "FC/PC"- "F" Twin FM/DAB/UHF-SAT		1
236903	Optical/RF Converter "FC/PC"- "F" Quad FM/DAB/UHF-SAT		1
237003	Optical/RF Converter "FC/PC"- "F" Quattro FM/DAB/UHF-SAT		1
FTTH TRANSMISSION & RECEPTION			
237301	Optical Transmitter / Multiplexer "SC/APC". 2i: 1310/1490nm(Sat) - RF(Terr.), 1o: 1310/1490/1550nm(Sat/Terr.)		1
237311	Optical Receiver / Demultiplexer "SC/APC". 1i: 1310/1490/1550nm(Sat/Terr.), 2o: 1310/1490nm(Sat) - RF(Terr.)		1
FIBER4SAT SOLUTION: 4 SATELLITES + TERRESTRIAL			
★ 237901	Optical Transmitter / Multiplexer DWDM "SC/APC" 5i: 4x 1100...1600nm(Sat) - RF(Terr.), 1o: 1550nm(4xSat+Terr), Po 5dBm		1
★ 237911	Optical Receiver / Demultiplexer DWDM "SC/APC" 1i: 1550nm(4xSat+Terr.), 4o: 4x RF(4xSat+Terr.)		1
★ 234755	DWDM Component, Optical Multiplexer / Demultiplexer 1i/4o "FC/PC": 1550,12nm (Ch34) / 1150,92nm (Ch33) / 1551,71nm (Ch32) / 1552,52nm (Ch31)		1
★ 237902	Optical Transmitter / Multiplexer CWDM "SC/APC" 5i: 4x 1100...1600nm(Sat) - RF(Terr.), 1o: 1550nm(4xSat+Terr), Po 5dBm		1
★ 234756	CWDM Component, Optical Multiplexer / Demultiplexer 1i/4o "FC/PC": 1510/1530/1550/1570nm		1
SPLITTERS			
235701	Optical Splitter 1310/1550nm "FC/PC" 2W 4dB		1
235801	Optical Splitter 1310/1550nm "FC/PC" 3W 5.5dB		1
235901	Optical Splitter 1310/1550nm "FC/PC" 4W 7dB		1
236001	Optical Splitter 1310/1550nm "FC/PC" 8W 10.1dB		1
ATTENUATORS			
2364	Optical Attenuator 1310/1550nm "FC/PC" 5dB		1
2365	Optical Attenuator 1310/1550nm "FC/PC" 10dB		1
2366	Optical Attenuator 1310/1550nm "FC/PC" 15dB		1
PRE-TERMINATED PATCH CORDS			
236110	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 1m		1
2361	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 3m		1
236101	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 5m		1
236102	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 10m		1
236103	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 20m		1
236104	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 30m		1
236105	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 40m		1
236106	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 50m		1
236107	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 75m		1
236108	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 100m		1
236109	F.O. Patch Cord Single-mode LSFH Pre-terminated "FC/PC" 200m		1
ACCESSORIES			
237050	Power Supply Unit 20V-1.2A (for Ref. 237003)		1
2354	Fibre Optics Connector for 2 "FC"- "FC" Pre-terminated Patch Cords Interconnection		5
2356	Fibre Optics Adapter for a "FC"- "SC" Connector Change, of 2 Pre-terminated Patch Cords		5



▶ 237201

FIBER4SAT

A FULL FOUR SATELLITES IN A SET-TOP BOX



▶ Transmitter (2379xx)



▲ Receiver (237911)

Distribution system of four satellites and DTT in a single optical fibre. Optical transmission using DWDM or CWDM (depending on the reference).

FULL SAT + DTT (FTTH)



▲ Transmitter (237301)



▲ Receiver (237311)

Optical system with WDM (Full SAT + DTT) allows the distribution of the whole contents of a satellite and the whole terrestrial band on a single fibre.



▶ 236810

Ref.	Description		
------	-------------	--	--

SPLITTERS WITH "EasyF" CONNECTOR

5...2400MHz

543503	Mini-Splitter 5...2400MHz "EasyF" 2W 4.3/4dB Indoor DC Pass O-I	10	
543603	Mini-Splitter 5...2400MHz "EasyF" 3W 8.5/7.5dB Indoor DC Pass O-I	10	
543702	Splitter 5...2400MHz "EasyF" 4W 9/7.5dB Indoor DC Pass O-I	10	
543802	Splitter 5...2400MHz "EasyF" 5W 10/9.5dB Indoor DC Pass O-I	10	
5469	Splitter 5...2400MHz "EasyF" 6W 11/14dB Indoor DC Pass O-I	6	
5489	Splitter 5...2400MHz "EasyF" 8W 14/16dB Indoor DC Pass O-I	6	
434103	Mini-Splitter 5...2400MHz "EasyF" 2W 4.5/4.3dB DC Pass All With Outdoor Mounting Case (Blister T1)	10	B
434202	Splitter 5...2400MHz "EasyF" 4W 9/7dB DC Pass O-I With Outdoor Mounting Case (Blister T1)	8	B

ACCESSORIES

417801	Outdoor Case Black Model for Mini Series Dimensions: External 88x78x39mm Internal 57x47x13mm	1/10	B
545501	Face Plate White 93x74x21mm	10	W
4177	Outdoor Case Black Small Model Dimensions: External 113x88x35mm Internal 92x66x27mm	1/5	B
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	1/5	G

SPLITTERS WITH "F" CONNECTOR

5...2400MHz

5155	Splitter 5...2400MHz "F" 2W 4/5dB Indoor DC Pass All	1/10	
5156	Splitter 5...2400MHz "F" 4W 7.5/10dB Indoor DC Pass All	1/10	
5157	Splitter 5...2400MHz "F" 5W 10/12dB Indoor DC Pass All	1/10	
5158	Splitter 5...2400MHz "F" 6W 10/12dB Indoor DC Pass All	1/10	
5159	Splitter 5...2400MHz "F" 8W 11/14dB Indoor DC Pass All	1/10	

ACCESSORIES

4177	Outdoor Case Black Small Model Dimensions: External 113x88x35mm Internal 92x66x27mm	1/5	B
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	1/5	G
4061	Terminal Load "F" 750hm with DC Blocked	10/200	
4058	Terminal Load "F" 750hm without DC Blocked	10/200	
405802	Terminal Load "F" 750hm without DC Blocked, Plastic Box	100	

TAPS WITH "F" CONNECTOR

5...2400MHz

5130	Tap 5...2400MHz "F" 2W 12dB Indoor (TA - Floor 1)	1/10	
5131	Tap 5...2400MHz "F" 2W 15dB Indoor (A - Floors 2 & 3)	1/10	
5132	Tap 5...2400MHz "F" 2W 18dB Indoor (B - Floors 4 & 5)	1/10	
5133	Tap 5...2400MHz "F" 2W 23dB Indoor (C - Floors 6 & 7)	1/10	
5134	Tap 5...2400MHz "F" 2W 27dB Indoor (D - Floors 8...10)	1/10	
514110	Tap 5...2400MHz "F" 4W 12dB Indoor DC Pass All (TA - Floor 1)	1/10	
514210	Tap 5...2400MHz "F" 4W 16dB Indoor DC Pass All (A - Floors 2 & 3)	1/10	
514310	Tap 5...2400MHz "F" 4W 19dB Indoor DC Pass All (B - Floors 4 & 5)	1/10	
514410	Tap 5...2400MHz "F" 4W 24dB Indoor DC Pass All (C - Floors 6...8)	1/10	
★ 514510	Tap 5...2400MHz "F" 4W 29dB Indoor DC Pass All (D - Floors 9 & 10)	1/10	
5135	Tap 5...2400MHz "F" 6W 19dB Indoor (TA - Floor 1)	1/10	
5136	Tap 5...2400MHz "F" 6W 21dB Indoor (A - Floors 2 & 3)	1/10	
5137	Tap 5...2400MHz "F" 6W 25dB Indoor (B - Floors 4...6)	1/10	
5146	Tap 5...2400MHz "F" 8W 19dB Indoor (TA - Floor 1)	1/10	
5147	Tap 5...2400MHz "F" 8W 20dB Indoor (A - Floors 2 & 3)	1/10	
5148	Tap 5...2400MHz "F" 8W 25dB Indoor (B - Floors 4...6)	1/10	



▲ Mini-Splitter 57x 47 x 13 mm

▲ 545501

BLACK OUTDOOR CASE FOR MINI SERIES



▲ 417801



▲ 543802

▲ 5155



▲ 5159



▲ 4163



▲ 514510

DISTRIBUTION

Ref.	Description	
OUTLETS		
END OUTLETS		
★ 516110	Quad End Outlet 5...2200MHz, FM-TV-SAT1-SAT2 8-5-3-2.8dB with DC Pass + Back Box + Face Plate	10
524501	End Outlet Triplexed 5..2400MHz, TV/FM-SAT1-SAT2 1-1.5-1dB with DC Pass	10/100
CONNECTORS		
"IEC" - Ø 9.5mm		
4130	"IEC" Ø 9.5mm Connector Male Elbowed Shielded	25/250
4131	"IEC" Ø 9.5mm Connector Female Elbowed Shielded	25/250
413210	"PRO EasyF" "IEC" Ø 9.5mm Connector Male Elbowed Class A+ Shielded	25/250
413310	"PRO EasyF" "IEC" Ø 9.5mm Connector Female Elbowed Class A+ Shielded	25/250
"F"		
413410	"PRO EasyF" "Quick F" Connector Elbowed Class A+ Shielded	25/250
4176	"Quick F" Connector Elbowed Shielded	25/250
3802	"F" Connector Compression for TSH Triple Shielded Cables (SK), Plastic Box	50/500
★ 410901	"F" Connector Compression Elbowed for T-100 Cable	25
4104	"F" Connector Compression for T-100 Cable, Plastic Box	50/500
4105	"F" Connector Compression for CXT-5 (Ø 5mm) Cable, Plastic Box	50/500
417102	"F" Connector Threaded with O-ring for T-100 Cable, Plastic Box	50/500
417101	"F" Connector Threaded with O-ring for T-100 Cable, Plastic Box	100/1000
3808	"F" Connector Threaded with O-ring for CXT-5 (Ø 5mm) Cable, Plastic Box	100/1000
9349	"F" Connector Threaded for TR-165 Cable	10/100
ACCESSORIES		
3821	Adapter "Quick F" Male - "F" Male, Plastic Box	50/500
4173	Adapter "F" Female - "F" Female	10/200
4071	DC Blocker "F"	10
4061	Terminal Load "F" 750hm with DC Blocked	10/200
4058	Terminal Load "F" 750hm without DC Blocked	10/200
405802	Terminal Load "F" 750hm without DC Blocked, Plastic Box	100
TOOLS		
216101	Hex-11 Wrench for "F" Connectors	1/250
★ 216120	Tightening Tool for "F" Connectors	1
2163	Tool for "F" Compression Connectors	1
216310	Insertion Tool for "F" Compression Connectors	1



PRO EASYF CLASS A+ CONNECTORS
 THE EXCEPTIONAL SCREENING FOR A COAXIAL NETWORK

COAXIAL CABLE

Ref.	Description			
COAXIAL CABLES				
Cu INNER CONDUCTOR / CuSn BRAID (CLASS A++ TRIPLE SHIELDED)				
EN 50117-2-4 / B2ca				
413910	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.9mm White	○	Ⓜ	100
413911	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.9mm White	○	Ⓜ	250
413912	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.9mm White	●	Ⓜ	500
EN 50117-2-4 / Cca				
★ 414901	Coaxial Cable SK2015plus LSFH UV Resistant Cca Class A++ Triple Shielded TSH 18AtC Ø 1.05/4.6/6.9mm White	○	Ⓜ	100
★ 414902	Coaxial Cable SK2015plus LSFH UV Resistant Cca Class A++ Triple Shielded TSH 18AtC Ø 1.05/4.6/6.9mm White	○	Ⓜ	250
Cu INNER CONDUCTOR / CuSn BRAID (CLASS A+ TRIPLE SHIELDED)				
EN 50117-2-5 / Dca				
414002	Coaxial Cable SK2003plus LSFH UV Resistant Dca Class A+ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.70mm Black	○	Ⓟ	100
414003	Coaxial Cable SK2003plus LSFH UV Resistant Dca Class A+ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.70mm Black	○	Ⓟ	250
414004	Coaxial Cable SK2003plus LSFH UV Resistant Dca Class A+ Triple Shielded TSH 18AtC Ø 1.02/4.6/6.70mm Black	●	Ⓟ	500
"Cu INNER CONDUCTOR + CuSn BRAID / CLASS A+ TRIPLE SHIELDED CAI BENCHMARK CABLE TUK100"				
EN 50117-2-4 / Eca				
★ 413708	Coaxial Cable SK110plus PVC Eca Class A+ Triple Shielded TSH 18VatC Ø 1.02/4.6/6.70mm White	●	Ⓜ	250
413707	Coaxial Cable SK110plus PVC Eca Class A+ Triple Shielded TSH 18VatC Ø 1.02/4.6/6.70mm Black	●	Ⓟ	250
CCS (Cu+Ac) INNER CONDUCTOR + AI BRAID				
EN 50117-2-4 / Eca				
2127	Coaxial Cable CXT-1 PVC Eca 17VatC.A Ø 1.00/4.7/6.7mm White	○	Ⓜ	100
212701	Coaxial Cable CXT-1 PVC Eca 17VatC.A Ø 1.00/4.7/6.7mm Black	○	Ⓟ	100
212703	Coaxial Cable CXT-1 PVC Eca 17VatC.A Ø 1.00/4.7/6.7mm White	●	Ⓜ	250
212702	Coaxial Cable CXT-1 PVC Eca 17VatC.A Ø 1.00/4.7/6.7mm Black	●	Ⓟ	250
212704	Coaxial Cable CXT-1 PVC Eca 17VatC.A Ø 1.00/4.7/6.7mm White	●	Ⓜ	500
UNDERGROUND CABLES				
Cu INNER CONDUCTOR + Cu BRAID				
EN 50117-2-5 / Fca				
2140	Coaxial Cable 1/2" PE Fca Class A 7PRTc Ø 2.7/11.5/15.0mm Black	●	Ⓟ	500
214901	Coaxial Cable TR-165 PE Fca Class A 11PRTc Ø 1.63/7.2/10.1mm Black	●	Ⓟ	250
ACCESSORIES				
2145	Professional Coaxial Cable Stripper			10
2162	Coaxial Cable Stripper (Bag B2)			10



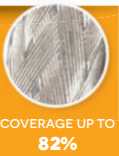
▲ 2145



➤ MORE INFORMATION ABOUT CPR: uk.televes.com/cpr

TRIPLE SHIELDED CABLES

The Trishield cable provides the greatest immunity against interferences. Its use is specially recommend when trying to avoid interference.



SK2020plus (4139xx)

CLASS A++
B2ca

An exceptional TSH cable with high screening attenuation, that offers an A++ class.

Additionally, due to its LSFH outer sheath, it complies with the requirements for CPR class B2ca, so it has a very low fire hazard.



SK2015plus (4149xx)

CLASS A+
Cca

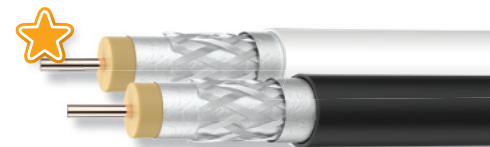


SK2003plus (4140xx)

CLASS A+
Dca



CAI type 100 approved cable.



▲ SK110plus (4137xx)

CLASS A+
Eca



CAI type RG6 approved cable.



▲ CXT-1 (2127)

Eca



▲ 1/2" (2140)

CLASS A
Fca



▲ TR-165 (214901)

CLASS A
Fca

CENELEC Standard:

Specifications for coaxial cable used in cabled distribution networks operating between 5...3000MHz.

Technical characteristics

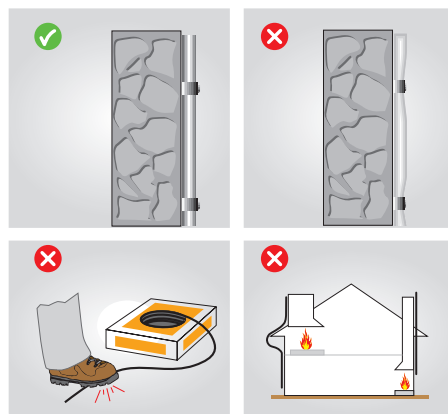
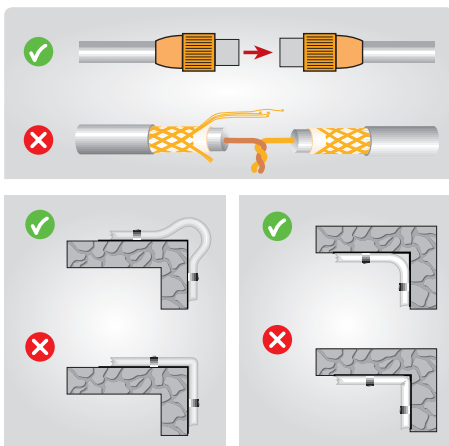
References		41391x	4149xx	4140xx	4138xx	4137xx	2127xx	2140	214901	
Type		SK2020plus Class A++	SK2015plus Class A++	SK2003plus Class A+	SK2000plus Class A++	SK110plus Class A+	CXT-1	1/2"	TR-165 Class A	
Inner Conductor	Ø mm	1.05	1.05	1.02	1.02	1.02	1.00	2.70	1.63	
	Material	Cu	Cu	Cu	Cu	Cu	CCS	Cu	Cu	
	Res. Ohm/Km	22	22	22	22	22	<120	3.2	<9	
Dielectric	Ø mm	4.6	4.6	4.6	4.6	4.6	4.7	11.5	7.2	
	Material	PEE	PEE	PEE	PEE	PEE	PEE	PEE	PEE	
Over Lapped Foil	Material	B	B	B	B	B	B	C	D	
Braid	Material	CuSn (98% Cu)	CuSn (98% Cu)	CuSn (98% Cu)	CuSn (98% Cu)	CuSn (98% Cu)	Al	Cu	Cu	
	Coverage %	82	82	82	82	55	77	53	70	
	Res. Ohm/Km	<11	<11	10.5	10.5	10.5	<60	7	<7.2	
2 nd shielding foil		Yes	Yes	Yes	Yes	Yes	No	No	No	
Petro-Jelly		No	No	No	No	No	No	Yes	Yes	
Outer sheath	Ø mm	6.9	6.9	6.7	6.7	6.7	6.7	15.0	10.1	
	Material	LSFH UV Resistant	LSFH UV Resistant	LSFH UV Resistant	PVC	PVC	PVC	PE	PE	
Minimum bending radius	mm	34.5	34.5	33.5	33.5	33.5	33	75	50	
Screening Attenuation @ 1GHz	dB	>105	>105	>95	>95	>95	>85	>75	>85	
Impedance	Ohm	75	75	76	75	75	75	75	75	
Velocity Ratio	%	84	84	84	84	84	82	82	84	
Attenuations										
Frequency [MHz]	[dB/m]	50	0.05	0.05	0.05	0.05	0.05	0.05	< 0.01	0.02
		200	0.09	0.09	0.09	0.09	0.09	0.09	0.03	0.05
		500	0.14	0.14	0.14	0.14	0.14	0.15	0.05	0.09
		800	0.18	0.18	0.18	0.18	0.18	0.17	0.07	0.11
		1000	0.21	0.21	0.21	0.21	0.21	0.23	0.08	0.16
		1350	0.25	0.25	0.25	0.25	0.25	0.27	0.10	0.18
		1750	0.28	0.28	0.28	0.28	0.28	0.32	0.12	0.19
		2050	0.31	0.31	0.30	0.30	0.30	0.35	0.13	0.21
		2300	0.32	0.32	0.32	0.32	0.32	0.37	0.14	0.21

Over Lapped Foil composition Environment

B	Aluminium + Polyester
C	Copper + Polyester
D	Aluminium + Polypropylene

Other abbreviations

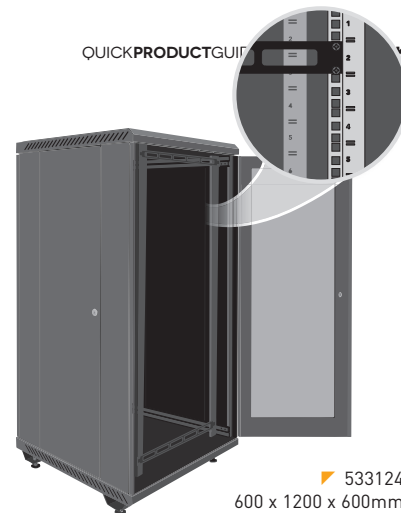
PE	Polyethylene
PEE	Foam Polyethylene
PVC	Polyvinyle Clorhidre
Al	Aluminium
Cu	Copper
CCS	Copper Clad Steel
CuSn	Tinned Copper



DATA ENCLOSURES AND CABLES

QUICKPRODUCTGUIDE

Ref.	Description		
RACKS, ENCLOSURES AND BOXES			
RACKS AND ACCESSORIES			
533106	19" Rack Cabinet 6RU (+2RU extra). Glazed Door and Accessible from the side. Wall/Ground Mount	1	
533108	19" Rack Cabinet 8RU (+2RU extra). Glazed Door and Accessible from the side. Wall/Ground Mount	1	
533113	19" Rack Cabinet 13RU (+2RU extra). Glazed Door and Accessible from the side. Wall/Ground Mount	1	
533117	19" Rack Cabinet 17RU (+2RU extra). Glazed Door and Accessible from the side. Wall/Ground Mount	1	
533124	19" Rack Cabinet 24RU (+2RU extra). Glazed Door and Accessible from the side. Ground Mount	1	
533150	Panel for Rack 19" 1RU, Up to 24 "F" connectors	1	
533153	T.OX Panel for Rack 19" 1RU, Up to 2x7 "F" connectors	1	
533151	Panel for Rack 19" 1RU, Up to 24 "RJ45" connectors	1	
533154	Cable Management for Rack 19" 1RU, 5 Holes	1	
533156	Cable Management for Rack 19" 1RU, 5 Rings	1	
533152	Splice Box for Rack 19" 1RU, Up to 24 "SC" connectors	1	
533155	Tray for Rack 19" 2RU (Depth 265mm)	1	
533161	Blank Panel for Rack 19" 1RU	1	
533163	Blank Panel for Rack 19" 3RU	1	
533165	Blank Panel for Rack 19" 5RU	1	
533170	Screw Kit for Rack 19": Screw with washer and nut (50 units)	1	
ENCLOSURES			
★ 546601	Closed Main Terminal Enclosure for Data/Coaxial Distribution (Up to 48 connections)	1	
546610	Open Main Terminal Panel for Data/Coaxial Distribution (Up to 24 connections)	1	
546701	Data/Coaxial/Fibre Network Terminal Enclosure	1	
546620	Coaxial Adapter Support "F" Female - "F" Female, for Panels (Ref. 546610)	1	
DATA CABLES			
CAT 7			
Cca			
★ 219101	Data Cable S/FTP Cat.-7 Cca Cu LSFH Ø 7.4mm White	305	Ⓜ
CAT 6A			
Cca			
★ 219301	Data Cable U/FTP Cat.-6A Cca Cu LSFH Ø 6.9mm White	305	Ⓜ
CAT 6			
Dca			
212101	Data Cable F/UTP Cat.-6 Dca Cu LSFH Ø 7.2mm Violet	500	Ⓥ
2123	Data Cable U/UTP Cat.-6 Dca Cu LSFH Ø 6.2mm Violet	305	Ⓥ
212302	Data Cable U/UTP Cat.-6 Dca Cu LSFH Ø 6.2mm Violet	1000	Ⓥ
Eca			
212310	Data Cable U/UTP Cat.-6 Eca Cu LSFH Ø 6.2mm Violet	305	Ⓥ
2199	Data Cable U/UTP Cat.-6 Eca Cu PVC Ø 6.2mm White	305	Ⓜ
Fca			
212201	Data Cable U/UTP Cat.-6 Fca Cu PE Ø 6.2mm White	305	Ⓜ
CAT 5E			
Eca			
219502	Data Cable F/UTP Cat.-5E Eca Cu LSFH Ø 6.3mm Grey	305	ⓐ
219602	Data Cable U/UTP Cat.-5E Eca Cu LSFH Ø 5.5mm Grey	305	ⓐ
Fca			
219701	Data Cable U/UTP Cat.-5E Fca Cu PE Ø 5.5mm Black	305	ⓑ
DATA CONNECTORS			
209901	Data Connector RJ45 UTP Cat.-6 Female	10	
209902	Data Connector RJ45 UTP Cat.-6 Male	100	
ACCESSORIES			
209801	Crimping Tool RJ45/RJ11/RJ12 and 4P4C/4P2C	1	



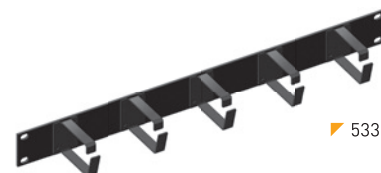
533124
600 x 1200 x 600mm



533154



533150



533156



546601
300 x 340 x 265 mm



546701
600 x 500 x 80mm



219502



2123



546620



209901



209902

SET TOP BOXES & HOME ACCESSORIES

Ref.	Description	
DTH STBs		
SATELLITE TV		
★ 717402	Satellite Digital Set-top Box FTA DVB-S/S2 (S/PDIF + SCR1/2)	1/10
717501	Satellite Digital Set-top Box FTA "zAs HD SAT" (FreeSat)	1/10
MODULATORS		
★ 585401	DiMod HD Encoder/Modulator DVB-T/DVB-C. 1i: HDMI/USB - 1 Mux(47...862MHz): CODFM/QAM (MPEG2/4) Configurable by WiFi.	1
640301	Wall Mount	1
585801	Domestic Modulator with Display (VHF/UHF)	1
AUDIO/VIDEO & IR TRANSMISSION		
730704	Digidom Transmitter + Receiver Audio/Video 2.4GHz 3 Channels	1/10
★ 716701	Digidom Transmitter + Receiver Audio/Video 5.8GHz 8 Channels	1/10
IR OVER RF TRANSMISSION		
★ 723703	Digidom Universal Transmitter + Receiver, Remote Control Extender, 8 Channels	1/30
★ 721903	Digidom Universal Transmitter, Remote Control Extender, 8 Channels	1/50



▲ 717501



▼ 585801

DIMOD



MULTI-STANDARD HD ENCODER / MODULATOR

With a domestic design, DiMod generates a digital multiplex from **one high definition audio/video source**. It is configurable with a **smartphone, tablet or PC wirelessly** with a user friendly embedded web interface.



▲ 640301



▲ 717402



▼ 716701



▲ 723703

Ref.	Description	
SPECTRUM ANALYZERS		
H30FLEX		
593301	H30FLEX: DVB-S/S2 + DVB-T	1
593302	H30FLEX: DVB-S/S2 + DVB-T/T2	1
593303	H30FLEX: DVB-S/S2 + DVB-C	1
593304	H30FLEX: DVB-S/S2 + DVB-T/T2 + DVB-C	1
H30FLEX OPTIONS		
593231	Option DVB-T	1
593232	Option DVB-T2 (DVB-T required)	1
593233	Option DVB-C	1
593234	Option dCSS	1
593235	Option Extended Terrestrial Input to 120dBμV	1
★ 593236	Option Analogue A/V Display (Format Adapters and Protective Sleeve included)	1
5909	Calibration of Spectrum Analyzer (Certificate Included) ⁽¹⁾	1
H30 (DVB-C)		
593102	H30: DVB-C + Remote Control (Ethernet) + IP Speed Test	1
593104	H30D3: DVB-C + Remote Control (Ethernet) + IP Speed Test + DOCSIS 3.0	1
H30/H30D3 OPTIONS		
593210	Option MPEG Service Information	1
5909	Calibration of Spectrum Analyzer (Certificate Included) ⁽¹⁾	1
H30FLEX / H30 / H30D3 ACCESSORIES		
593201	Protective Sleeve (Included by Default in H30 and H30D3 models)	1
★ 593239	Carrying Case	1
H45 COMPACT		
599020	H45 COMPACT: Full HD + CI	1
599021	H45 COMPACT: Full HD + CI + DVB-T2	1
599022	H45 COMPACT: Full HD + CI + F.O.	1
599024	H45 COMPACT: Full HD + CI + DVB-T2 + F.O.	1
H45 COMPACT OPTIONS		
598901	Option DVB-T2 ⁽¹⁾	1
5999	Option Fibre Optic Interface ⁽¹⁾	1
5909	Calibration of Spectrum Analyzer (Certificate Included) ⁽¹⁾	1
H45 ACCESSORIES		
5995	Weatherproof Bag	1
405701	Twin Adaptor "EasyF" Male - "F" Female	10
MOSAIQ6		
596101	MOSAIQ6: DVB-T/T2 + DVB-S/S2 + DVB-C, CI, F.O.	1
596111	MOSAIQ6: DVB-T/T2 + DVB-S/S2 + DVB-C, CI, Selective F.O. Interface (CWDM Filter)	1
MOSAIQ6 OPTIONS		
596201	Option GPS Drive Test	1
596202	Option WiFi 5GHz	1
596203	Option Analogue Measures	1
596204	Option DAB/DAB+	1
596205	Option 4K - Ultra High Definition (UHD)	1
5909	Calibration of Spectrum Analyzer (Certificate Included) ⁽¹⁾	1
MOSAIQ6 ACCESSORIES		
★ 596210	Field Replaceable Battery	1
★ 596211	Carrying Bag	1
★ 596212	Adapter "N" Male - "F" Female	1

H30FLEX



ALL THE FUNCTIONS YOU NEED IN YOUR HAND

A pocket size meter which allows you to customize upgrade choice with downloadable software.

h30flex.televes.com

uk.televes.com/h30flex

MOSAIQ6

Portable meter with high performance and high accuracy for professional installers.



THE POWER OF USER EXPERIENCE

6 SCREENS IN 1

Thanks to its configurable interface, you choose which widgets (up to 6) you want to simultaneously display in the 8" high resolution screen. Check the installation status at a glance.

A TRUE TOUCH SCREEN

This new interface has been designed and also programmed to take full advantage of a touch screen with touch gestures (tap, double tap, long press, drag, spread or pinch). Only in this way is it possible to operate so easily a meter with so many performances.

mosaiq6.televes.com

uk.televes.com/mosaiq6



▲ 596211



▲ 593239



▲ H45 Compact

(1) Upgrades to be done in Factory.

MEASURING EQUIPMENT & TOOLS

Ref.	Description	
FIBRE OPTIC TOOLS		
KITS		
232103	F.O Kit: Arc Fusion Splicer + Stripper + Cleaver + Accessories for fusioning Connectors ⁽¹⁾	1
2341	F.O Kit: Connector & Mechanical Splice + Stripper (Ref. 2324) + Cleaver (Ref. 232301) + Cleaning Tools ⁽²⁾	1
ACCESSORIES		
2327	Splicing Protection Sleeve 60mm for FO fusion	200
232701	Splicing Protection Sleeve 43mm for FO fusion	200
2322	Fibre Mechanical Splicer	1
2328	Fibre Mechanical Splices	10
232301	Cleaver of Fibre Optics	1
232310	Kevlar Scissors for Optical Fibres	1
2325	Stripper for Multi-fibre Cables	1
2324	Precision Stripper for Optical Fibres	1
★ 2329	Connectors of Fibre Optics "SC/APC" (with mounting tool)	10
232910	Cleaner for Fibre Optic Connectors	1
232710	F.O. Cleaning Kit: 50 isopropyl alcohol Wipes + 25 Sticks	1
SIGNAL GENERATORS		
★ 2340	OPS3L Triple Light Source (1310, 1490 & 1550nm)	1
4008	SAT Simulator 950...2150MHz	1
593001	SAT Simulator and Noise Generator 5...3000MHz	1



▲ 2341



▲ 2322



▲ 232301



▲ 593001



▲ 4008



▲ 2340



▲ 2329



▲ 232103



▲ 232910

(1) Also includes: Spare set of electrodes, tweezers and carrying case.

(2) Also includes: ref. 2328 (5 units), ref.2329 (10 units), ref.232910 (1 unit and a replacement reel), 10 isopropyl alcohol wipes, 10 sticks for connectors cleaning & carrying bag.

Ref.	Description	
COAXDATA SERIES		
GIGABIT: 1Gbps		
769301	Transmitter/Receiver Router 1Gbps-HDTV Data over Coaxial, PLC and WiFi (Low Power WiFi option), 3 Ethernet Connectors & 2 "F" Connectors	1
769201	Transmitter/Receiver 1Gbps-HDTV Data over Coaxial and PLC, 2 Ethernet Connectors & 2 "F" Connectors	1
769202	Transmitter/Receiver 1Gbps-HDTV Data over Coaxial and PLC, 1 Ethernet Connector, 1 SFP (Optical Fibre) Connector & 2 "F" Connectors	1
769203	Transmitter/Receiver 1Gbps-HDTV Data over Coaxial, 1 Ethernet Connector & 2 "F" Connectors	1
MANAGEMENT		
★ 769330	CoaxBox Device: Managing and Monitoring for CoaxData Networks	1
ACCESSORIES		
769210	Ethernet - SFP Adapter 1000Base-X 2 Fibres, Point to Point (Media Converter)	1
769220	Diplexer Filter 2i/1o "F": LPF(2...68MHz) - HPF(87...2150MHz)	1/10
640301	Wall Mount	1



▲ 769201



▲ 769202



▲ 769203

COAXBOX



CoaxBox device Managing and monitoring the whole CoaxCata network from a single device
CoaxBox includes the following applications:

- **AdminService:** for the configuration of the device itself.
- **AccessControl:** for CoaxData devices configuration.
- **CoaxProv:** for the provisioning of CoaxData devices equipped with MyNET WiFi (Ref. 769301).

COAXDATA SERIES



▶ 769301

COAXDATA, IMPROVING CURRENT COAXIAL INFRASTRUCTURE

No works required. Data access up to 1 Gbps over television cable.

CoaxData turns the coaxial television network and/or the electricity grid into high-speed data networks. The easy installation together with the use of existing networks allows the hotel to keep operating during commissioning.

This technology supports a fast and easy implementation of value-added services for the guest (Wi-Fi, TV, Extended TV, ArantiaCast, digital signage).

Televes' Mynet WiFi technology allows you to configure your CoaxData Wireless Access Point in low power mode, hence the possibility to create network access microcells providing an improved performance to all users connected.

Ref.	Description	
------	-------------	--

FIBREDATA SOLUTIONS: GPON (Gigabit-capable Passive Optical Networks)

GPON HEADENDS

769401	OLT512: 8x PON + 4x Gb Ethernet + 4x 10Gb Ethernet/Gb Ethernet (Up to 512 users) ⁽¹⁾	1
769420	Modular OLT3072, for 3 16xPON cards and 2 2x10Gb switch cards, (Up to 3072 users) ⁽¹⁾	1
769421	2x10Gb Switch Card (for OLT3072, Ref. 769420)	1
769422	16xPON Card (for OLT3072, Ref. 769420)	1
769601	Double Power Supply Unit -48Vdc. 19" Rack Mount, 1RU (for OLT)	1
769410	SFP GPON B+ 1 Fibre "SC/PC"	1
769413	SFP GPON C+ 1 Fibre "SC/PC"	1
769411	SFP Gb Ethernet "RJ45"	1
769412	SFP 10Gb Ethernet 2 Fibres	1

VIDEO OVERLAY HEADENDS

234305	T.OX Optical Transmitter SMATV 1550nm "SC/APC" Po 5dBm w/o Return Path	1
234811	T.OX Optical Transmitter CATV 1550nm "SC/APC" Po 10dBm w/o Return Path RF Automatic Adjustment and Temperature Stability	1
234806	T.OX Optical Transmitter CATV 1550nm "SC/APC" Po 6dBm w/o Return Path External modulation and RF Automatic Adjustment (up to 30Km). DOCSIS 3.1 compatible	1
★ 769801	Optical Transmitter SMATV 1550nm "SC/APC" Po 5dBm w/o Return Path 19" Rack Mount, 1RU	1
★ 769812	Optical Transmitter CATV 1550nm "SC/APC" Po 6dBm w/o Return Path External modulation and RF Automatic Adjustment (up to 30Km). DOCSIS 3.1 compatible 19" Rack Mount, 1RU	1
769610	Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 9i: 8x1310/1490nm - 1x1550nm, 8o: 8x1310/1490/1550nm + Double Power Supply Unit -48Vdc. 19" Rack Mount, 1RU (for OLT)	1
★ 769612	Optical Amplifier / Multiplexer "SC/APC" 17dBm (YEDFA Technology) 9i: 8x1310/1490nm - 1x1550nm, 8o: 8x1310/1490/1550nm + Double Power Supply Unit -48Vdc. 19" Rack Mount, 1RU (for OLT)	1
769611	Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 33i: 32x1310/1490nm - 1x1550nm, 32o: 32x1310/1490/1550nm 19" Rack Mount, 2RU	1
234220	T.OX Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology)	1
234221	T.OX Optical Amplifier / Multiplexer "SC/APC" 19dBm (EDFA Technology) 2i: 1310/1490nm - 1550nm, 1o: 1310/1490/1550nm	1
234228	T.OX Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 9i: 8x1310/1490nm - 1x1550nm, 8o: 8x1310/1490/1550nm	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
2337	T.OX Optical Splitter 1260...1650nm "SC/APC" 2W 4dB	1
2339	T.OX Optical Splitter 1260...1650nm "SC/APC" 4W 7dB	1
234401	T.OX Optical Splitter 1260...1650nm "SC/APC" 8W 10dB	1
234501	T.OX Optical Splitter 1260...1650nm "SC/APC" 16W 14dB	1
234601	T.OX Optical Splitter 1260...1650nm "SC/APC" 32W 17dB	1



▲ 234811 ▲ 234806



▲ 769410 ▲ 769413

FIBREDATA SOLUTIONS

TELEVES COST-EFFECTIVE
QUAD PLAY SOLUTIONS OVER
OPTICAL FIBRE



▲ OLT3072



▲ OLT512

Compact, reliable, affordable and easy to
manage GPON and RF overlay products.

Multiple-play service enabling high speed data,
VoIP, 802.11Ac Wi-Fi, video (IPTV and RF overlay)
Poe, etc.



▲ 769612



▲ 769812



▲ 769611



▲ CHECK
OUR FIBREDATA BROCHURE:
uk.televes.com/fibredata

(1) AC/DC Adapter included.

Ref.	Description	
FIBREDATA SOLUTIONS: GPON (Gigabit-capable Passive Optical Networks)		
DISTRIBUTION		
★ 234740	WDM Module Optical Multiplexer/Demultiplexer 1i/2o "SC/APC": GPON+RF: Data (1310/1490nm) - TV (1550nm)	1
233750	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 2W 4dB	1
233950	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 4W 7dB	1
234450	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 8W 10dB	1
234550	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 16W 14dB	1
234650	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 32W 17dB	1
★ 233850	Optical Splitter, PLC Component, 1260...1650nm "SC/APC" 64W 20dB	1
231502	F.O. Patch/Splitting Box 2 to 4 Outs ("SC/APC" Female - Female adapters included)	1
232622	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC"- "SC/PC" 0.2m	5
232621	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 2m (Bag B4)	10
236410	Optical Attenuator 1310/1550nm "SC/APC" 2dB	1
236411	Optical Attenuator 1310/1550nm "SC/APC" 5dB	1
236412	Optical Attenuator 1310/1550nm "SC/APC" 10dB	1
CUSTOMER PREMISE EQUIPMENT: ONT (Optical Network Terminal)		
769507	ONU Basic Module: 1x GB Ethernet	1
769508	ONU Standard Module: 1x GB Ethernet, RF Overlay	1
769501	Office ONT Module: 4x GB Ethernet + 2x FXS + 2x USB, WLAN	1
769506	Office AC ONT Module: 4x GB Ethernet + 2x FXS + 2x USB, WLAN b/g/n/ac	1
769502	Home ONT Module: 4x GB Ethernet + 2x FXS + 2x USB, WLAN, RF Overlay	1
769504	Home ONT Module: 4x GB Ethernet + 2x FXS + 2x USB, WLAN b/g/n/ac, RF Overlay	1
OPTICAL MICRO-NODES		
231111	Domestic Optical Receiver 1550nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology (Optical Level Control)	1



▲ 234740



▲ 234650



▲ ONT



▲ 231111



▲ 232622
(SC/APC to SC/PC lead)

Technical Characteristics: ONT + ONU



References		769501	769506	769502	769504	769507	769508
Models		ONT				ONU	
		OFFICE	OFFICE	HOME	HOME	BASIC	STANDARD
RF-Overlay		✗	✗	✓	✓	✗	✓
WiFi (802.11 b/g/n) (2x2) 2.4		✓	✓	✓	✓	✗	✗
WiFi (802.11 b/g/n/ac) (2x2) 2.4/5		✗	✓	✗	✓	✗	✗
USB		2	2	2	2	✗	✗
FXS Ports		2	2	2	2	✗	✗
ETH 10/100/1000BASE-T Ports		4	4	4	4	1	1
NAT/NAPT		✓	✓	✓	✓	✗	✗
Firewall		✓	✓	✓	✓	✗	✗
VPN pass-through		✓	✓	✓	✓	✗	✗
PPPoE Terminal		✓	✓	✓	✓	✗	✗
OMCI		✓	✓	✓	✓	✗	✗
TR-069		✓	✓	✓	✓	✗	✗
CLI		✓	✓	✓	✓	✗	✗
WebGUI		✓	✓	✓	✓	✗	✗
General							
Temperature conditions	°C	-5...65				-5...65	
	°F	23...149				23...149	
Relative humidity	%	0..95				0..95	
Power consumption	W	19	19	19	19	7	7
Dimensions (Width x Hight x Depth)	mm	212x45x212				143x34x107	

DO IT YOURSELF

Ref.	Description			
ANTENNAS				
TERRESTRIAL - with TForce Technology				
★ 148923	Ellipse Terrestrial Antenna UHF (Ch21-48), G 38dBi BOSS ON PSU included, UK plug (Single Packing)	LTE700	⊙	1
149921	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Single Packing)	LTE700	⊙	1/5
149941	DAT BOSS Terrestrial Antenna UHF (Ch21-60) G 17dBi BOSS OFF, G 45dBi BOSS ON (Single Packing)	LTE790	⊙	1/5
149721	DAT BOSS LR Terrestrial Antenna UHF (Ch21-48) G 19dBi BOSS OFF, G 47dBi BOSS ON (Single Packing)	LTE700	⊙	1
149740	DAT BOSS LR Terrestrial Antenna UHF (Ch21-60) G 19dBi BOSS OFF, G 47dBi BOSS ON (Single Packing)	LTE790	⊙	1
144022	DINOVA BOSS Terrestrial Antenna UHF (Ch21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	LTE700	⊙	1
144012	DINOVA BOSS Terrestrial Antenna UHF (Ch21-60) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	LTE790	⊙	1
★ 144222	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch21-48) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON (Kit with accesories)	LTE700	⊙	1
★ 144212	DINOVA BOSS MIX Terrestrial Antenna VHF/UHF(Ch21-60) G 1/6dBi BOSS OFF, G 24/33dBi BOSS ON (Kit with accesories)	LTE790	⊙	1
★ 144422	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF(Ch21-48) G 17/16/25/25dBi BOSS ON (Kit with accessories)	LTE700	⊙	1
★ 144442	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF(Ch21-60) G 17/16/25/25dBi BOSS ON (Kit with accessories)	LTE790	⊙	1
TERRESTRIAL				
144501	CAMPNOVA BOSS Terrestrial Antenna FM/BIII/UHF G -2/10/22dBi BOSS ON (Kit with accessories)		⊙	1
INDOOR ANTENNAS				
SET TOP AERIALS - with TForce Technology				
★ 130220	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 20dBi (USB-microUSB cable included, for 5V powering)	LTE700	⊙	1
★ 130240	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-60) G 20dBi (USB-microUSB cable included, for 5V powering)	LTE790	⊙	1
★ 130320	INNOVA BOSS MIX Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-48) G 17/20dBi (USB-microUSB cable included, for 5V powering)	LTE700	⊙	1
★ 130340	INNOVA BOSS MIX Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-60) G 17/20dBi (USB-microUSB cable included, for 5V powering)	LTE790	⊙	1
HOME ACCESSORIES				
AUDIO/VIDEO & IR TRANSMISSION				
730704	Digidom Transmitter + Receiver Audio/Video 2.4GHz 3 Channels			1/10
★ 716701	Digidom Transmitter + Receiver Audio/Video 5.8GHz 8 Channels			1/10
IR OVER RF TRANSMISSION				
★ 723703	Digidom Universal Transmitter + Receiver, Remote Control Extender, 8 Channels			1/30
★ 721903	Digidom Universal Transmitter, Remote Control Extender, 8 Channels			1/50



▲ Ellipse



▲ DiNova BOSS



▲ CampNova BOSS

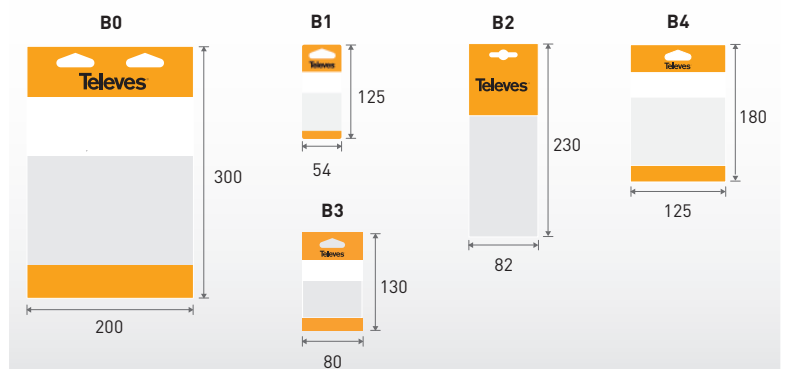
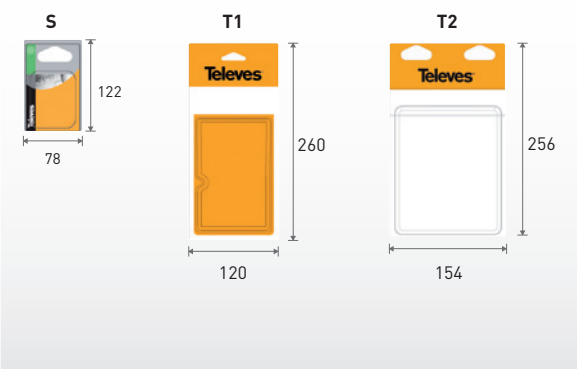


▲ InNova BOSS

Packaging types (mm)

BLISTERS

BAGS



DO IT YOURSELF

Ref.	Description		
DIGITAL RECEIVERS			
SATELLITE TV			
★ 717402	Satellite Digital Set-top Box FTA DVB-S/S2 (S/PDIF + SCR1/2)		1/10
717501	Satellite Digital Set-top Box FTA "zAs HD SAT" (FreeSat)		1/10
LTE FILTERS			
			LTE790
"IEC" CONNECTOR			
404411	Medium Rejection LTE Filter (MR) "IEC" 470...774MHz UHF (Ch21-58) Indoor (Bag B3)		10
404410	High Rejection LTE Filter (HR) "IEC" 47...782MHz VHF/UHF (Ch21-59) Indoor (Blister S)		10
404412	High Rejection LTE Filter (HR) "IEC" 47...790MHz VHF/UHF (Ch21-60) Indoor (Bag B3)		10
MODULATOR			
★ 585401	DiMod HD Encoder/Modulator DVB-T/DVB-C. 1i: HDMI/USB - 1 Mux(47...862MHz): CODFM/QAM (MPEG2/4) Configurable by WiFi.		1
585801	Domestic Modulator with Channel (VHF/UHF)		1
DOMESTIC AMPLIFIERS			
552840	Domestic Amplifier 1i/(2o+TV) "IEC": 47..790MHz G 20dB Vo 106dBµV + Output TV Outlet G 12dB (Blister T1)	LTE790	8
545720	Domestic Amplifier 1i/(2o+TV) "IEC": 47...694MHz G 20dB Vs 110dBµV + Output TV Outlet G 12dB + Preamp.Pow. 12V-100mA (Blister T1)	LTE700	8
552940	Domestic Amplifier 1i/(4o+TV) "IEC": 47..790MHz G 16dB Vo 102dBµV + Output to a TV Outlet G 11dB (Blister T1)	LTE790	8
552220	Domestic Amplifier 1i/(2o+TV) "F": 47...694MHz G 20dB Vo 110dBµV + Output TV Outlet G 12dB (Blister T1)	LTE700	1
★ 552340	Domestic Amplifier 1i/(4o+TV) "F": 47...790MHz G 16dB Vo 102dBµV + Output to a TV Outlet G 11dB (Blister T1)	LTE790	8
5531	Domestic Amplifier 1i/6o "F": 47...862MHz G 16dB Vo 103dBµV (Blister T1)		8
★ 545801	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F" : 47...694/790MHz G 20dB Vo 101dBµV Auto-Adjustment + Preamplifier Powering 12V-100mA (Blister T1)	AUTO LTE	8
ATTENUATORS			
4315	Adjustable Attenuator "IEC" Ø 9.5mm 1 to 25dB VHF/UHF DC Pass (Bag B1)		10
SPLITTERS			
434103	Mini-Splitter 5...2400MHz "EasyF" 2W 4.5/4.3dB DC Pass All With Outdoor Mounting Case (Blister T1)	B	10
434202	Splitter 5...2400MHz "EasyF" 4W 9/7dB DC Pass All With Outdoor Mounting Case (Blister T1)	B	8



▲ 717402

LET'S BE CLEAR 800



▲ 404410



▲ 585401



▲ 545801



▲ 552840



▲ 4315



▲ 434103

DO IT YOURSELF

Ref.	Description		
COAXIAL			
CLASS A++ CABLE LEADS			
3851	Coaxial Cable Lead "F" Compression 1.5m White (Bag B0)	Ⓜ	30
385101	Coaxial Cable Lead "F" Compression 3m White (Bag B0)	Ⓜ	20
385102	Coaxial Cable Lead "F" Compression 5m White (Bag B0)	Ⓜ	15
3852	Coaxial Cable Lead "IEC" Male-Female Compression 1.5m White (Bag B0)	Ⓜ	30
385201	Coaxial Cable Lead "IEC" Male-Female Compression 3m White (Bag B0)	Ⓜ	20
385202	Coaxial Cable Lead "IEC" Male-Female Compression 5m White (Bag B0)	Ⓜ	15
3856	Coaxial Cable Lead "F" - "IEC" Male Compression 1.5m White (Bag B0)	Ⓜ	30
385601	Coaxial Cable Lead "F" - "IEC" Male Compression 3m White (Bag B0)	Ⓜ	20
385602	Coaxial Cable Lead "F" - "IEC" Male Compression 5m White (Bag B0)	Ⓜ	15
3854	Coaxial Cable Lead "F" - "IEC" Female Compression 1.5m White (Bag B0)	Ⓜ	30
385401	Coaxial Cable Lead "F" - "IEC" Female Compression 3m White (Bag B0)	Ⓜ	20
385402	Coaxial Cable Lead "F" - "IEC" Female Compression 5m White (Bag B0)	Ⓜ	15
3853	Coaxial Cable Lead "F" Compression - "Quick F" "PRO EasyF" 1.5m White (Bag B0)	Ⓜ	30
385301	Coaxial Cable Lead "F" Compression - "Quick F" "PRO EasyF" 3m White (Bag B0)	Ⓜ	20
385302	Coaxial Cable Lead "F" Compression - "Quick F" "PRO EasyF" 5m White (Bag B0)	Ⓜ	15
385501	Coaxial Cable Lead "F" Compression - "IEC" Female "PRO EasyF" 3m White (Bag B0)	Ⓜ	20
385701	Coaxial Cable Lead "F" Compression - "IEC" Male "PRO EasyF" 3m White (Bag B0)	Ⓜ	20
3858	Coaxial Cable Lead "IEC" Male Compression - "IEC" Female "PRO EasyF" 1.5m White (Bag B0)	Ⓜ	30
385801	Coaxial Cable Lead "IEC" Male Compression - "IEC" Female "PRO EasyF" 3m White (Bag B0)	Ⓜ	20
385802	Coaxial Cable Lead "IEC" Male Compression - "IEC" Female "PRO EasyF" 5m White (Bag B0)	Ⓜ	15
CABLE LEADS			
431001	Coaxial Cable Lead "IEC" Ø 9.5mm Elbowed Shielded Male-Female 1,5m Grey (Blister T1)	Ⓜ	8
431002	Coaxial Cable Lead "IEC" Ø 9.5mm Elbowed Shielded Male-Female 2,5m Grey (Blister T1)	Ⓜ	8
ACCESSORIES			
2162	Coaxial Cable Stripper (Bag B2)		10
FIBRE OPTICS CONNECTION			
232621	F.O. Patch Cord Single-mode LSFH Pre-terminated "SC/APC" 2m (Bag B4)		10
AUDIO/VIDEO CONNECTION			
494501	HDMI Cable Male-Male 1.5m Black (Blister T1)	Ⓜ	8
494502	HDMI Cable Male-Male 3m Black (Blister T2)	Ⓜ	10
494503	HDMI Cable Male-Male 5m Black (Blister T2)	Ⓜ	10
494505	HDMI Cable Male-Male 1.5m Black (Bag)	Ⓜ	100
495790	HDMI Rotating Cable 0-90° Male-Male 1.5m Black	Ⓜ	100
MAST ACCESSORIES			
4361	Guy Wire Mounting Kit Ø 45mm (Blister T2)		10

Cable lead made with SK2000plus, a trishielded high screening cable. **A++**



See technical specifications of SK2000plus cable on page 29.



▲ 494502

▲ 232621



▲ 4361

ARANTIA.TV



IPTV AND INTERACTIVE TV

Arantia TV includes all the services needed to respond to its customers' requirements within a simple IPTV platform in all kinds of projects, including hotels, hospitals, operators, companies and residential buildings. Indeed, it provides additional **new tools in order to enhance business operations.**

- **New multi-screen Middleware:**
 - STB Nemesis V2 Middleware, LG and Samsung televisions*.
 - Apps for iOS and Android devices*.
- Third party systems integration:
 - Property Management Systems,
 - NO/NC Alarm Systems.
- **Multiple Interactive Services:**
 - Television, Video on Demand, News, Messages, Check Expenses, Information Services...
- Integration with Arantia DS (Digital Signage) and Arantia Cast (content sharing on the TV from mobile devices via Chromecast).
- A powerful system management tool: Allows managing all the existing functionalities and includes a complete and intuitive user friendly interface design tool.
- Customizable user interface, according to the requirements of every project and even every room within the same project.

* Check compatible TV models.

Ref.	Description	
COMPACT HE-21 IPTV HEADEND		
831010	HE-21 4U Chassis	1
831011	HE-21 4U Chassis with Redundant Power Supply	1
831012	HE-21 1U Chassis	1
831110	HE-21 DVB-S/S2 Dual Input	1
831111	HE-21 DVB-S/S2 Quad Input	1
831115	HE-21 DVB-T/T2 Dual Input	1
831114	HE-21 DVB-T/T2 Quad Input	1
831123	HE-21 DVB-S/S2/T/T2/C/ISDB-T Dual Input with Dual CI	1
831121	HE-21 ATSC Quad Input	1
831118	HE-21 DVB-IP Input	1
831122	HE-21 HDMI Quad Input	1
831119	HE-21 Corporate Channel Licence	1
★ 83031801	HE-21 Arantia TV Middleware up to 50 Users	1
830325	HE-21 Middleware Lite & TV Management Tool	1
TRANSCODERS		
832201	Transcoder/Streamer Live	1
ITV HEADEND (Interactive Television)		
★ 83032003	Arantia TV Middleware up to 100 Users	1
★ 83032103	Arantia TV Middleware from 101 to 499 Users	1
★ 83032203	Arantia TV Middleware from 500 to 750 Users	1
★ 83032303	Arantia TV Middleware over 750 Users	1
830319	Arantia TV Set-Top Box Licence	1
★ 83050701	Arantia TV LG Compatible Televisions Licence	1
★ 83050702	Arantia TV Samsung Compatible Televisions Licence	1
830311	VOD Server 20 Streams 1TB SATA	1
83031201	VOD Server 95 Streams 500GB (1,2TB) SAS	1
83031203	VOD Server 95 Streams 1TB (2,4TB) SAS	1
ITV PERSONALIZATION & OPTIONS		
830501	Property Management System Interface	1
830103	Alarm Monitor Device	1
830506	NO/NC Alarm System Integration	1

IPTV HE-21 HEADEND



Arantia IPTV HE-21 headend allows the reception of digital services through its DVB-T/T2, DVB-S/S2, DVB-C, ISDB-T, ATSC, HDMI, SDI & IP input modules that are encapsulated in IP packages and streamed through an IPTV network.

- **Cost-effective:** Adjusted price taking into account all the features that incorporates, such as the Session Announcement Protocol (SAP) or Universal Plug and Play (UPnP).
- **High Density:** Many inputs and software options in a reduced space of 4U.
- **Multi-Standard:** Support for most of the European and American Digital TV (DTV) standards.
- **Web Administration.**
- **Descrambling with DVB-CI.**
- **HEVC & 4K compatible.**
- **Optional Products:** Corporate Channel Licence, Interactive Services Middleware and Middleware IPTV Lite.



▲ Transcoder/Streamer Live



▲ VoD Server

Ref.	Description	
IPTV - ITV IN ROOM EQUIPMENT		
★ 830108	Nemesis V2 Set-Top Box	1
★ 830216	Universal RF Remote Control	1
★ 830217	Power Supply Unit for Nemesis V2Set-Top Box (EU plug)	1
★ 830218	Power Supply Unit for Nemesis V2 Set-Top Box (UK plug)	1
★ 830219	Nemesis V2 Set-Top Box TVI Extension - Samsung	1
★ 830220	Nemesis V2 Set-Top Box TVI Extension - LG	1
★ 830207	LG/Samsung Remote Control	1
831504	CAT6 UTP Cable 1m	1
IPTV - ITV ACCESSORIES		
831304	19" Rack 22U Mounted & Adjusted	1
831301	19" Rack 27U Mounted & Adjusted	1
831302	19" Rack 37U Mounted & Adjusted	1
831303	19" Rack 42U Mounted & Adjusted	1
831311	Rack Rails for HE-21	1
831404	VPN Router	1
831701	Uninterruptible Power Supply (UPS)	1
831401	Layer 3 Ethernet Switch 1000TX 24 Ports + 4 SFP Ports	1
831406	Layer 2+ Ethernet Switch 1000TX 24 Ports + 4 SFP Ports	1
831402	Layer 2 Ethernet Switch 100TX 24 Ports + 4 SFP Ports	1
831403	Layer 2 Ethernet Switch 100TX 48 Ports + 4 SFP Ports	1
831503	Transceiver 1000SX SFP LC MMF (Multi-Mode Fibre)	1
831506	Transceiver 1000LX SFP LC SMF (Single-Mode Fibre)	1
831505	Transceiver 1000T SFP RJ-45	1



▲ 831403

STB NEMESIS V2



Powerful Set-Top-Box designed to deploy interactive services specifically designed and developed to serve the hospitality environment.

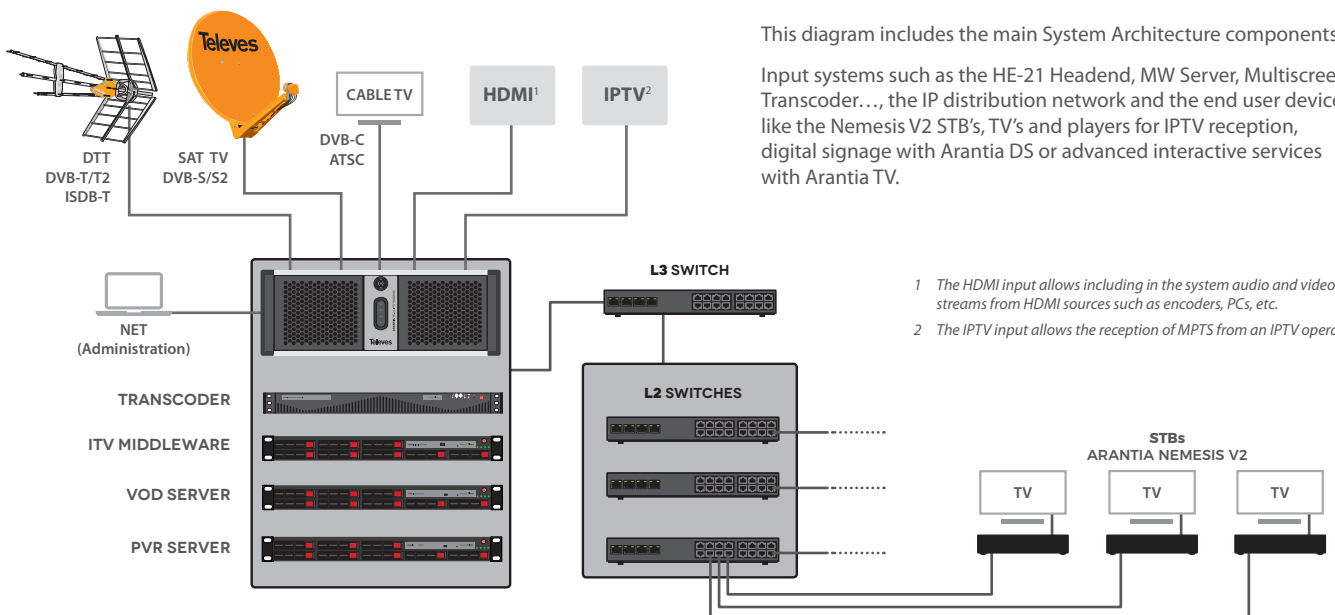
Based on the AOSP (Android Open Source Project) with a complete management tool and an intuitive user application, it is the perfect choice to offer information and entertainment services.

- MPEG2, MPEG4-AVC / H264 and H265 decoding capabilities.
- Resolutions up to 4K UHD.
- Connectivity: Gigabit Ethernet, WiFi 2.4 GHz and 5GHz and Bluetooth 4.1.
- Remote management and monitoring.
- Accessories: Power supply 10W (5V/2A) and remote control (Bluetooth and IR)



▼ Rack 27U (Mounted and adjusted)

Arantia TV: Main System Components



1 The HDMI input allows including in the system audio and video streams from HDMI sources such as encoders, PCs, etc.
 2 The IPTV input allows the reception of MPTS from an IPTV operator.

ARANTIA.DS



PROMOTE YOUR BUSINESS
 IN A SIMPLE, INTUITIVE AND PROFITABLE WAY
THROUGH ATTRACTIVE MULTIMEDIA CONTENT
 THANKS TO ARANTIA DS

DIGITAL SIGNAGE SOLUTION FOR YOUR BUSINESS

Create, manage and deliver attractive, flexible and tailor made information to different Digital Signage Players through the system management tool.

Main Features:

- Web based Management Tool.
- Scalable solution.
- Cloud based & in-house Server architecture.
- Users and groups management.
- DS Players Management.
- Media library Management.
- Secured Content Download.
- Templates and Content Designer.
- Content Carousels.
- Smart Content Scheduling.
- Displays Switch ON / OFF Scheduling.
- Room Booking Application.
- Several player options: External and Built-in/ embedded in the DS Display panel.

Ref.	Description	
DIGITAL SIGNAGE CLOUD		
831810	Chronos DS Player	1
831812	Nemesis DS Player	1
831801	Totem with Vertical Display DS Player	1
★ 831802	Totem with Vertical Touch Display DS Player	1
★ 831806	LG WebOS DS Player Licence	1
831811	DS Annual Cloud Hosting per Player	1
830209	Power Supply Unit for Set-Top Box (EU plug)	1
830208	Power Supply Unit for Set-Top Box (UK plug)	1
830213	Set-Top Box TVI Extension - Samsung	1
830215	Set-Top Box TVI Extension - LG	1
LOCAL DIGITAL SIGNAGE		
831805	Arantia DS Server up to 150 Users	1
831810	Chronos DS Player	1
831812	Nemesis DS Player	1
831801	Totem with Vertical Display DS Player	1
★ 831802	Totem with Vertical Touch Display DS Player	1
★ 831806	LG WebOS DS Player Licence	1
830209	Power Supply Unit for Set-Top Box (EU plug)	1
830208	Power Supply Unit for Set-Top Box (UK plug)	1
830213	Set-Top Box TVI Extension - Samsung	1
830215	Set-Top Box TVI Extension - LG	1

DS NEMESIS STB



THE NATURAL EVOLUTION OF STB's

Nemesis STB is the natural evolution of Chronos as a Digital Signage Player for Arantia DS.

- With the same shape as the Chronos STB, it is a powerful and reliable STB with low power consumption and better performance.
- It supports vertical and horizontal orientation, which is very useful for certain types of contents.
- It includes expandable storage via microSD.



▲ Player DS Chronos



▲ Arantia DS license for screens/panels that do not require external STB's.

ARANTIA.DS



ArantaDS Totem provides a new powerful tool for direct communication with your audience, fully integrated in the establishment environment at any location thanks to its innovative and customized design.

- It allows to display different types of digital information (information on events, addresses, advertisement and promotion) at one signalling point.
- It offers the possibility of customization, emphasizing the company's corporate image.
- It is made up of a light extruded aluminium chassis with a slim and sophisticated design.
- It has a IPS FHD 55" screen with integrated audio and Smart Energy Saving, specially conceived for Digital Signage, with a 24/7 operation mode and electronic protection against external agents as dust and humidity.
- It offers an optimal view of the displayed contents thanks to the frontal extra clear laminated glass.
- Totem with the touch panel/screen option enabled to support interactive content.

Arantia DS: Cloud based & in-house Server based operation modes

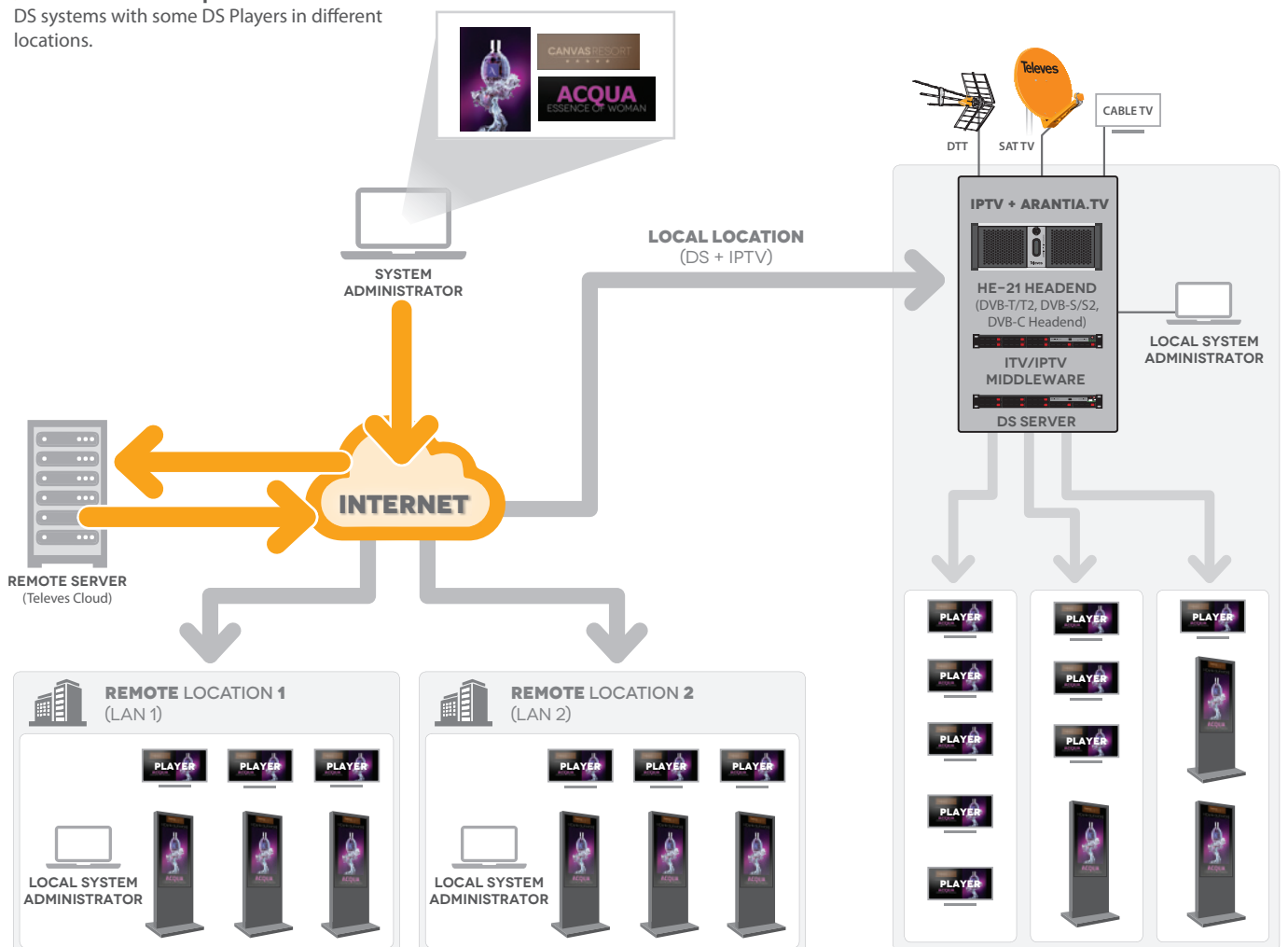
Arantia DS offers two operation modes through a Cloud based or an in-house Server based architecture:

CLOUD BASED ARANTIA DS: The core DS management application is hosted inside Televés Cloud infrastructure and the distributed DS Players access to it from any place with Internet access.

► **This architecture is perfect** for distributed DS systems with some DS Players in different locations.

IN-HOUSE SERVER BASED ARANTIA DS: The core DS management application and the DS Players are located in the same local area network.

► **This architecture is perfect** for DS systems where the number of DS Players located in the same local network is high.



DEFINITIONS

- 1.1. "Contract" means the contract for the sale of the Goods by the Supplier to the Purchaser.
- 1.2. "Goods" means the goods (including any installment of the goods or any part of them) agreed to be sold by the Supplier to the Purchaser.
- 1.3. "Purchaser" means the person, firm or company ordering Goods from the Supplier.
- 1.4. "Supplier" means Televes UK Limited (registered number 2280583) whose principal place of business is at Unit 11 Hill Street Industrial Estate, Cwmbran, Gwent, NP44 7PG.

GENERAL

- 2.1. These Conditions shall not be affected by any previous dealings between the Supplier and the Purchaser. Each Contract entered into by the Purchaser and the Supplier shall be regarded as a separate and new contract having no relation to other contracts between the Purchaser and the Supplier.
- 2.2. Any reference in these Conditions to a statute or a provision of statute shall be construed as a reference to that statute or provision as amended re-enacted or extended at the relevant time.
- 2.3. The headings in these Conditions are for convenience only and shall not affect their interpretation.

VARIATION

- 3.1. Neither the Purchaser and the Supplier shall be bound by any variation, waiver of, or addition to these Conditions except as agreed by both parties in writing and signed on their behalf. In the event of any such variation, waiver of, or addition to these Conditions the provisions of these Conditions not so varied or waived shall continue to apply to the Contract along with the condition or conditions as varied or added to these Conditions.
- 3.2. These Conditions can only be varied by a director of the Supplier in writing.

DESCRIPTION / SAMPLE

- 4.1. Any description of the Goods is given by way of identification only and the use of such description shall not constitute the sale a sale by description.
- 4.2. Notwithstanding that a sample of the Goods may be exhibited to and inspected by the Purchaser, it is hereby declared that such sample is exhibited and inspected solely to enable the Purchaser to judge for itself the quality of the bulk, and not so as to constitute the sale a sale by sample.

EXCLUSIONS

5.1. Without prejudice to Condition 12, no liability whatsoever shall be incurred by the Supplier in respect of any representation made by the Supplier or its agents to the Purchaser or the Purchaser's agents before the contract was made nor in respect of any express terms of the Contract whether a condition, warranty or intermediate stipulation (including any liability arising from the breach of such term) where such representation or express term relates or refers in any way to:

- a) The correspondence of the Goods to any description or
- b) The quality of the Goods or
- c) The fitness of the Goods for any purpose whatsoever.

All implied terms, conditions or warranties whether statutory or otherwise as to

- a) The correspondence of the goods to any description or the merchantable quality of the Goods or
- b) The fitness of the Goods for any purpose whatsoever (whether made known to the Supplier or not) are hereby excluded from the contract (other than as may be expressly set out in these Conditions).

5.2. The Supplier does not seek to exclude liability for death or personal injury caused by the Supplier's negligence, or (where the Purchaser deals as a consumer within the meaning of section 12 of the Unfair contract terms Act 1977) to exclude liability or breach of the obligations arising from Sections 13 to 15 of the Sale of Goods Act 1979.

DELIVERY

The Supplier shall deliver the Goods to the Purchaser on an "ex works" basis.

- 6.1. Delivery of the Goods shall be made to Purchaser's delivery address as notified by the Purchaser. The Purchaser shall make all arrangements to take delivery of the Goods whenever they are tendered for delivery.
- 6.2. The Purchaser shall be deemed to have accepted the Goods after delivery to the Purchaser.
- 6.3. The Supplier has the right to deliver the Goods by installments in any sequence. If the Goods are delivered by installments each installment will be deemed to be the subject of a separate contract and any default or failure by the Supplier in respect of one or more installments will not vitiate the Contract in respect of the Goods previously delivered or undelivered Goods.

6.4. Any dates stated by the Supplier for the delivery of the Goods are approximated only and do not form part of the contract and the Purchaser agrees that the time of delivery shall not be of the essence of the Contract. The Goods may be delivered by the Supplier in advance of any quoted delivery date upon giving reasonable notice to the Purchaser.

6.5. If the Purchaser fails to take delivery of the Goods (or any part of them) on the due date the Supplier will be entitled, upon giving written notice, delivery will be deemed to have taken place, risk in the goods will pass to the Purchaser and the Purchaser will pay to the Supplier on demand all costs and expenses (including but not limited to storage and insurance charges) arising from the failure.

6.6. Without prejudice to condition 12, the Supplier will not be liable for any penalty loss, injury, damage or expense, arising from any delay or failure in delivery or performance from any cause at all, nor will any such delay or failure entitle the Purchaser to refuse to accept any delivery or performance of or to repudiate the contract.

6.7. Any claim for damage in transit, non-delivery of any Goods or that any Goods are not of the correct quantity must be notified in writing by the Purchaser to the Supplier within twenty days from the date of which the Goods were to be delivered or date of the Supplier's invoice, whichever is earlier. If the Purchaser proves that any goods have not been delivered or (subject to Condition 9) are not of the correct quantity the Supplier will replace the same with similar Goods.

6.8. Free delivery within the UK mainland on orders over £500 net. Freight charges for deliveries outside UK mainland will be charged to the buyer at cost.

QUOTATION / PRICE

7.1. The price of the Goods ("the Price") shall be the Supplier's quoted price or, where no prices has been quoted, the price listed in the Suppliers published price list in use by the Supplier at the date of acceptance of the Contract. Such prices are based on the current cost of production (materials, hours and wages) and are subject to amendment to meet any rise or fall in such cost. Any variation to the Price as a result of government taxes or levies will be for the Purchaser's account.

7.2. Unless previously withdrawn the quotation is open for acceptance in writing for a period of thirty days from the date of the quotation after which period it is subject to review.

7.3. The Price is exclusive of any applicable valued added tax, which the Purchaser shall be additionally liable to pay to the Supplier.

PAYMENT

8.1. Payment of Goods supplied under the Contract is due 30 days after the date of invoice (unless otherwise agreed in writing) and the Purchaser agrees that the Purchaser will not be entitled for any reason to make any deduction from or withhold any payment due to the Supplier.

8.2. Time for payment of sums payable to the Supplier shall be of the essence of the contract. If payment of the Price is not made in full by the due date for payment whether the same be demanded or not, the Supplier shall be entitled (without prejudice to any other rights it may have):

- 8.2.1. To charge interest (both before and after any judgment) on the outstanding amount remaining unpaid at either the rate of 2% per annum above the Base Rate of the Supplier's Bank, from time to time in force and accruing daily, or at the rate provided for in the Late Payment of Commercial Debts Act 1988; whichever is the higher; and
- 8.2.2. To require payment in advance of delivery of undelivered Goods; and
- 8.2.3. To refuse to make delivery of any undelivered Goods whether ordered under the contract or not and without incurring any liability whatever to the Purchaser for non-delivery or any delay in delivery; and
- 8.2.4. To terminate the Contract.

8.3. In the event of the Purchaser failing to make payments in respect of invoices due in terms of these Conditions, the Supplier shall be entitled to recover from the Purchaser all expenses relative to the recovering of outstanding sums. Such expenses to include all fees and relative outlays including those to third party collection agencies.

VARIATIONS IN AMOUNT

9.1. The Supplier shall be entitled to deliver to the Purchaser in satisfaction of the Contract a quantity of the goods which is less than or which exceeds that specified in the contract (the Supplier giving credit for any undelivered Goods).

TITLE

10.1. The property in the Goods will not pass to the Purchaser until payment of the Price for the Goods (and for all other goods agreed to be sold by the Supplier to the Purchaser for which payment is then due) has been made in full.

10.2. Until such time the Purchaser will hold the goods as the Supplier's bailee and fiduciary agent and will store the Goods separately from other goods so that they can be identified as the Supplier's property and keep the same protected and insured.

10.3. Until the property in the goods passes to the Purchaser, the Purchaser shall be entitled to resell or use the Goods in the ordinary course of its business but shall account to the Supplier for such element of the proceeds of sales or otherwise of the goods, whether tangible or intangible, including insurance proceeds, as is equivalent to the Price and shall keep all such proceeds separate from any monies or property of the Purchaser and other parties and, in the case of tangible proceeds, properly stored, protected and insured.

10.4. Until such time as property in the Goods passes to the Purchaser, the Supplier shall be entitled at any time to require the Purchaser to deliver up the Goods to the Supplier and if the Purchaser fails to do so forthwith to enter upon any premises of the Purchaser or any third party where the Goods are believed to be stored and repossess the Goods. The Purchaser shall indemnify the Seller in respect of any claims, costs or damages against or incurred by the Supplier as a result of entering such premises.

PERFORMANCE

11.1. Unless otherwise stated any performance given are guidelines only based upon results obtained under test conditions and they do not form part of the Conditions of Sale or constitute a warranty on the part of the Supplier.

11.2. Where it is warranted that specific performance figures shall be achieved a warranty shall only be enforced where the Goods are installed and operated in accordance with the Supplier's instructions.

GUARANTEE

12.1. The Supplier guarantees that subject to Conditions 12.2, 12.3 and 12.4 and for a period of 24 months, unless otherwise stated in written in the documentation included with the product, from the date of delivery of Goods to the Purchaser (in accordance with Condition 6), the Goods shall be of satisfactory quality within the meaning of the Sale of Goods Act 1979.

12.2. The Purchaser shall in relation to any claim made under Conditions 12.1 above give full details of the claim and shall afford the Supplier reasonable opportunity and facilities to investigate any claims made by the Purchaser and if requested in writing by the Supplier must promptly return any Goods, which are the subject of a claim (together with any packing) securely packed and carriage paid to the Supplier for examination.

12.3. Under no circumstances will be Supplier be liable for:

12.3.1. Damage resulting from fair wear and tear or improper use by the Purchaser or failure by the Purchaser to comply with the instructions or advice of the Supplier or the manufacturer of the Goods or neglect of any of the description;

12.3.2. Variations in the quantities or dimensions of any Goods or changes in specifications or substitution of any material or components if the variation or substitution does not materially affect the characteristics of the goods and the substituted materials or components are of a quality equal or superior to those originally specified.

12.3.3. Goods which have been adjusted, altered, adapted or repaired by any party other than the Supplier;

12.3.4. Any defect arising from any design or specification provided or made by the Purchaser or if any adjustments, alteration, adaptations or other work has been done to the Goods by any person other than the Supplier.

12.4. In no circumstances whatsoever shall be Supplier's liability to the Purchaser (on whatever ground) arising under out of or in connection with the Contract or the Goods exceed the Price of the particular Goods in regard to which complaint is made.

12.5. The Supplier will have no liability whatsoever in respect of claims made otherwise than in accordance with the provisions of conditions 12.1, 12.2 and 12.3 above.

12.6. Any Goods replaced shall belong to the Supplier and any repaired or replacement Goods shall be guaranteed on these terms for the unexpired portion of the guarantee period.

12.7. A handling charge of 10% of the Contract price shall be applied in the event that any Goods are returned to the Supplier which were correctly supplied to the Purchaser and do not breach the guarantee in condition 12.1.

TERMINATION OF SUPPLY

13.1. The Supplier may (without prejudice to its other rights) in its absolute discretion suspend or terminate the supply of any goods if the Purchaser fails to make punctual payment of any sum due or if:

13.1.1. The Purchaser makes any voluntary arrangement with its creditors (within the meaning of the Insolvency Act 1986) becomes the subject of a petition for an Administration Order or goes into liquidation (otherwise then for the purpose of amalgamation or reconstruction without insolvency) or (being an individual or firm) is declared bankrupt; or

13.1.2. An encumbrancer takes possession of or a receiver is appointed of any of the property or assets of the Purchaser; or

13.1.3. The Purchaser ceases or threatens to cease to carry on its business; or

13.1.4. The Supplier reasonably apprehends any of the events mentioned above is about to occur in relation to the Purchaser and notifies the Purchasers accordingly.

13.2. The Supplier shall not be under any liability to the Purchaser for a failure to perform any of its obligations under the Contract which is caused by or connected with a failure by the party from whom the Supplier is to purchase the Goods to carry out any of its obligations under the contract between the Supplier and such party.

INDEMNITY

14.1. The Purchaser shall indemnify the Supplier against all loss (including loss of profit), costs including the cost of all labour and materials used), damages, charges and expenses incurred by the Supplier as a result of any inadequacy of or lack of instruction by the purchaser or delay or default on the part of the Purchaser.

FORCE MAJEURE

15.1. Neither the Supplier nor the Purchaser shall be liable to the other or be deemed to be in breach of the Contract by reason of any delay in performing, or any failure to perform, any of its obligations in relation to the Goods, if the or failure was beyond that party's reasonable control. Without prejudice to the generality of the foregoing, act of God, explosion, flood, tempest, fire or accident, war, sabotage, insurrection, civil disturbance or requisition, acts, restrictions, regulations, by-laws, prohibitions, or measures of any kind on the part of any governmental parliamentary or local authority, import or export regulations or embargoes shall be regarded as caused beyond either party's reasonable control.

15.2. If either of the parties claims that a force majeure event has occurred and is accordingly relieved from performing any of its obligations under the Contract for a continuous period in excess of 30 days then the other may, notwithstanding any other provisions of these Conditions, terminate the Contract by giving to the party claiming force majeure not less than 7 days written notice.

PURCHASER'S SPECIFICATION

16.1. If the Goods are to be provided by the Supplier to a specifications submitted by the Purchaser, the Purchaser shall indemnify the Supplier against all losses, damages, costs and expenses awarded against or incurred by the Supplier in connection with or paid or agreed to be paid by the Supplier in settlement of any claim for infringement of any patent, copyright, design, trademark or other industrial or intellectual property rights of any other person which results from the Supplier's use of the Purchaser's specification.

NOTICE

17.1. Any notice under the Contract shall be deemed to have been duly served if delivered by hand, when left at the proper address for service

17.2. If given or made by prepaid first class post 48 hours after being posted (excluding Saturdays, Sundays and public holidays)

17.3. If given or made by e-mail or fax at the time of transmission if the transmission occurs before 4pm on a working day (Monday to Friday inclusive) or on a day other than a working day service shall be deemed to occur at 10am on the next following working day (such times being local time at the address of the recipient).

17.4. Any notice shall be in writing or by e-mail or fax addressed to the recipient at its registered office or its address stated in the Contract (or such other address, e-mail address or fax number as may be notified in writing from time to time).

LAW

18.1. These Conditions shall be governed by and construed according to English law and the parties to the Contract hereby submit to the non-exclusive jurisdiction of the English Courts.

WEEE COMPLIANCE B2B

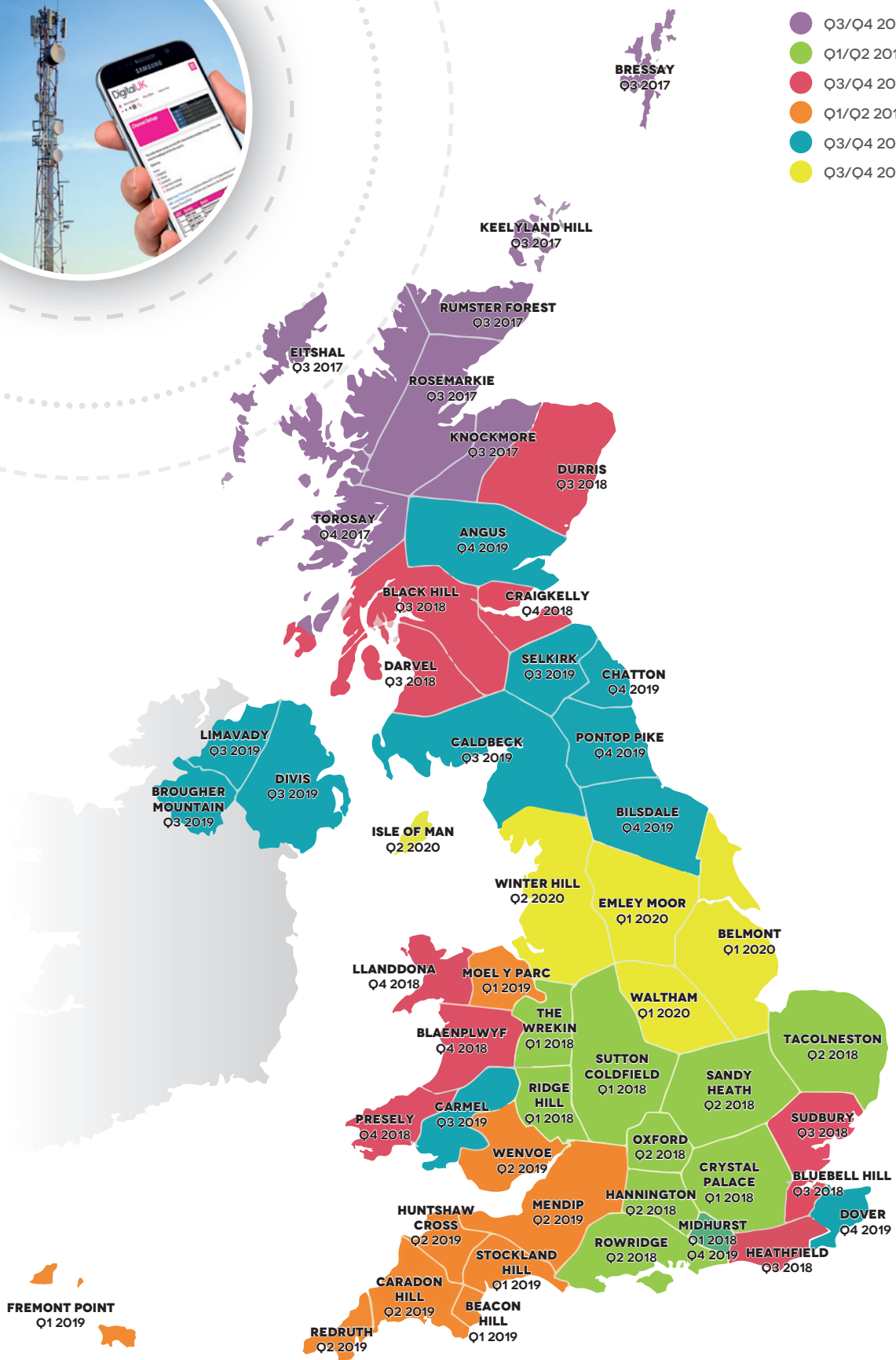
19.1. The B2B end user is responsible for all liabilities regarding the environmentally sound disposal of this EEE when is discarded as WEEE.

19.2. The producer may, for commercial reasons only, offer a take back option when a B2B end user is purchasing a new product. However this will be decided on a case by case basis and may incur a charge.

Be ready for the upcoming 700MHz clearance



- Q3/Q4 2017
- Q1/Q2 2018
- Q3/Q4 2018
- Q1/Q2 2019
- Q3/Q4 2019
- Q3/Q4 2020



COMMERCIAL NETWORK

FOR THE UNITED KINGDOM & REPUBLIC OF IRELAND

TELEVES UNITED KINGDOM LTD

Unit 11 Hill Street, Industrial Estate
Cwmbran, Gwent Np44 7Pg
(UNITED KINGDOM)

51° 38' 34.8144" N, 3° 1' 23.88" W

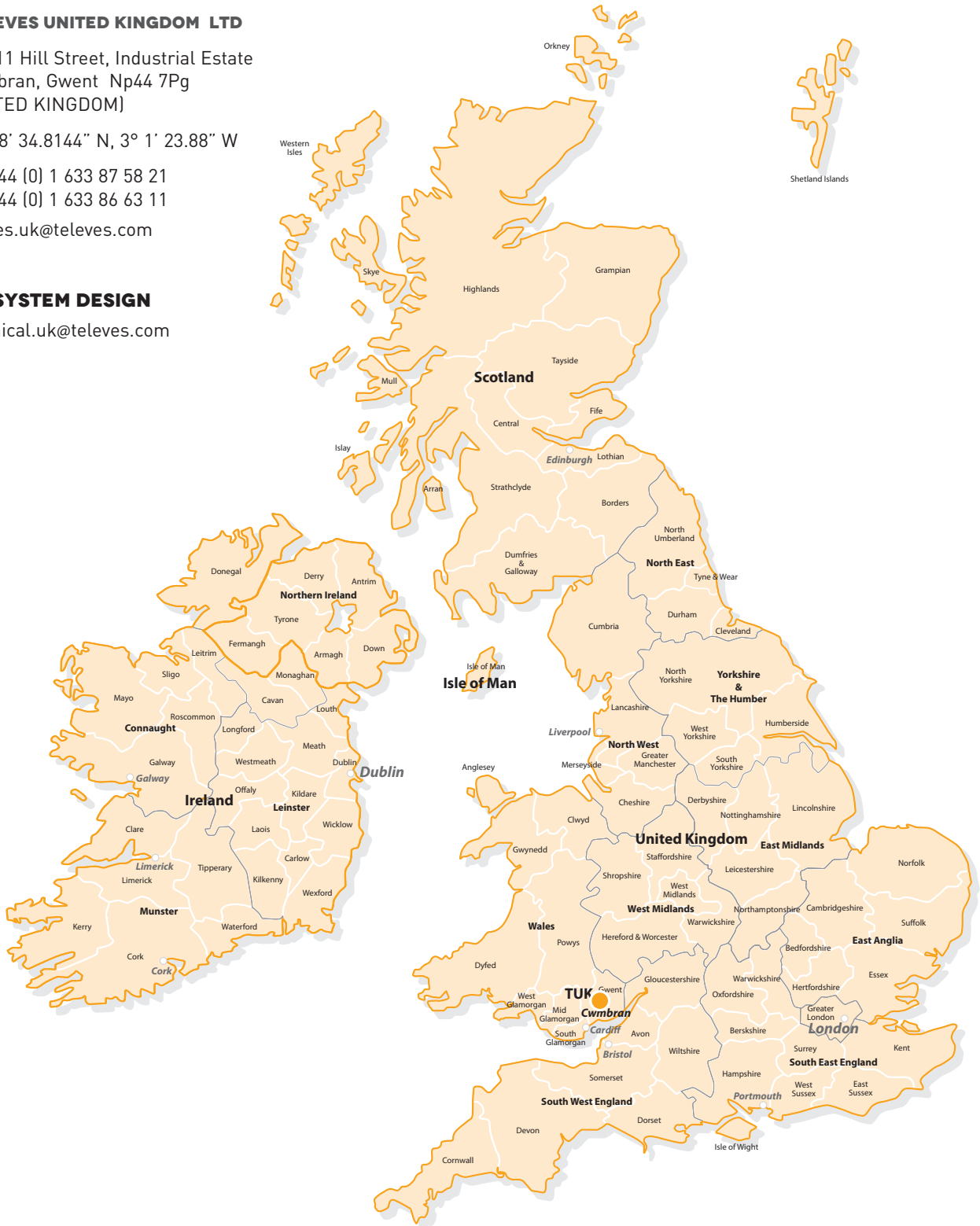
T. +44 (0) 1 633 87 58 21

F. +44 (0) 1 633 86 63 11

televes.uk@televes.com

SYSTEM DESIGN

technical.uk@televes.com



TELEVES CONTACT DETAILS

ANDREW BRANN

Wales, Scotland, North of England,
Northern Ireland & Republic of Ireland

M. +44 (0) 7778 846206 | abrann@televes.com

TONY MACINNES

South of England, London, East Anglia,
Midlands, Yorkshire & The Humber

M. +44 (0) 7973 270263 | tmacinnes@televes.com



BOUND BY TECHNOLOGY

Teledes Corporation is at the heart of a group of technological companies representing global leadership in desing and development of equipment for all types of telecom infrastructures in cities, buildings and homes.

Teledes Corporation groups more than 20 companies that work together pursuing the common goal of designing, developing and manufacturing in Spain high quality products and solutions for various sectors in the field of telecommunications, such as transmission and distribution of television services, implementation of multiservice networks in Hospitality, development of advanced eHealth platforms, as well as integrating solutions for professional LED lighting projects.

Teledes Corporation reaches over 100 countries directly through its 11 international subsidiaries (España, Portugal, France, United Kingdom, United Arab Emirates, Italia, United States, Deutschland, China, Polska, Russia, Scandinavia) and through an extensive network of professional distributors.