

UK

# Televes®

**QUICK PRODUCT GUIDE 2022**

# ALL THE FUNCTIONS YOU NEED, ALSO IN FIBRE OPTICS

## H30 CRYSTAL

H30Crystal is the new portable and multi-standard spectrum analyzer, which completes the H30 range with powerful fibre optic functionality, present in all modern telecommunication infrastructures.

### Services and IPTV Analyzer

IPTV and RF services information



### OPTICAL MEASUREMENTS

Accurate analysis for high-capacity networks



### WI-FI ANALYSER

All bands (2.4 and 5 GHz)



### MULTISCREEN AND REMOTE CONTROL

Controllable from any Android or iOS device or a PC



[h30crystal.televes.com](http://h30crystal.televes.com)

Teledes®



**TV DISTRIBUTION**

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★ New  
 📦 Pack boxed in


**TFORCE** TForce Technology

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**Integrated protection against LTE:**

**LTE790** Channel 60 filtering (790MHz)  
**LTE700** Channel 48 filtering (694MHz)

**AUTO LTE** Channel 48/60 filtering (automatic switching)  
**700 790** Channel 48/60 filtering (manual switching)




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🔑 **Identifying colour in product**

● Orange	● Graphite
○ White	● Black
● Red	● Violet
● Grey	● Aqua blue



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**Packaging type for coaxial cable**

● Plastic reel      📦 EasyBox  
 ● Wooden drum

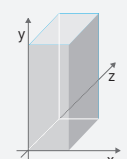
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**CAI Logos**

 Type 100       RG6

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**Dimensions:** xyz  
 (width x height x depth)



## CONSIDERATIONS

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.

Our Declarations of Conformity (DoC), Performance (DoP), etc., are available at: [www.doc.televés.com](http://www.doc.televés.com)

### T.OX series:

- In case of modules with CI, it is the responsibility of the concerned person to consult Televés and check compatibility of CAM and card with the module. Simultaneous decryption of services (CAM Pro): If CAM and card allow it.
- The number of modules indicated for supports and enclosures is based solely on the available space; but the number of installable modules may be limited by other restrictions as consumption or temperature.

### Compatibility between tower ranges:

Due to their assembly system, tower ranges 450/550 (systems with union nuts), 450XL (systems with security bolts) and 550ULTRA (system with plates) are not compatible with each other.

### Multiswitches:

- Some ranges of multiswitches include earth bonding bars. Contact us for more information about these references.
- PSU is only included in Quad compatible version.

### OLC technology:

The OLC (Optical Level Control) technology, included in some optical products, automatically adjusts the parameters to achieve a constant output level, irrespective of the channel.

### CENELEC standard for cables:

- EN 50117-2-1: Indoor Cable 5...1000MHz
- EN 50117-2-4: Indoor Cable 5...3000MHz
- EN 50117-2-5: Outdoor Cable 5...3000MHz

### Data cables:

Cables and patch cords with copper inner conductor are compatible with PoE/PoE+ (Power Over Ethernet) technology.

### Hospitality:

- Systems that integrate FibreData (GPON) and ArantiaTV require Layer2+ or Layer3 switches.

# TV DISTRIBUTION

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The distribution of radio communication services is the traditional core of our company.



# TV DISTRIBUTION TERRESTRIAL ANTENNAS

Ref.	Description		
<b>INTELLIGENT (WITH BOSSTECH)</b>			
<b>ELLIPSE SERIES</b>			
<b>Ellipse</b>			
148920	Ellipse Terrestrial Antenna UHF (Ch21-48), G 38dBi BOSS ON (Multiple Packing)	TFORCE LTE700	8
148923	Ellipse Terrestrial Antenna UHF (Ch21-48), G 38dBi BOSS ON PSU included 12V-220mA, UK plug (Single Packing)	TFORCE LTE700	1/4
<b>DAT SERIES</b>			
<b>DAT BOSS</b>			
149921	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Single packing)	TFORCE LTE700	1/5
149922	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Multiple packing)	TFORCE LTE700	6
<b>DAT BOSS LR</b>			
149721	DAT BOSS LR Terrestrial Antenna UHF (Ch21-48) G 19dBi BOSS OFF, G 47dBi BOSS ON (Single packing)	TFORCE LTE700	1
<b>NOVA SERIES</b>			
<b>DINOVA BOSS</b>			
144021	DINOVA BOSS Terrestrial Antenna UHF (Ch21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON	TFORCE LTE700	1
144022	DINOVA BOSS Terrestrial Antenna UHF (Ch21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	TFORCE LTE700	1
144223	DINOVA BOSS MIX Terrestrial Antenna BIII/UHF (Ch5-12/21-48) G 1/6dBi BOSS OFF, G 27/32dBi BOSS ON	TFORCE LTE700	1
144224	DINOVA BOSS MIX Terrestrial Antenna BIII/UHF (Ch5-12/21-48) G 1/6dBi BOSS OFF, G 27/32dBi BOSS ON (Kit with accesories)	TFORCE LTE700	1
<b>CAMPNOVA BOSS</b>			
144521	CAMPNOVA BOSS Terrestrial Antenna FM/BIII/UHF (Ch5-12/21-48) G -2/20/30dBi BOSS ON (Kit with accessories)	TFORCE LTE700	1
<b>OMNINOVA BOSS</b>			
144422	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF (Ch3-12/21-48) G 17/16/25/25dBi BOSS ON (Kit with accessories)	TFORCE LTE700	1
<b>INDOOR SERIES</b>			
<b>BEXIA series</b>			
130501	BEXIA Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-48) G 15/18dBi (USB-microUSB cable included, for 5V powering)	TFORCE LTE700	1
<b>INNOVA BOSS</b>			
130220	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 20dBi (USB-microUSB cable included, for 5V powering)	TFORCE LTE700	1
130320	INNOVA BOSS MIX Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-48) G 17/20dBi (USB-microUSB cable included, for 5V powering)	TFORCE LTE700	1
<b>MIRA BOSS</b>			
130121	MIRA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 18dBi	TFORCE LTE700	1


**ELLIPSE**



DISCOVER IT!  
[ellipse.televes.com](http://ellipse.televes.com)


**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.



PSU included: intelligence is activated when the antenna is powered.

**TFORCE TECHNOLOGY**




Look for the TForce mark in you intelligent antenna to guarantee the best quality reception.

TForce increases the coverage of a TDT antenna, amplifying almost imperceptible signals and remaining inalterable for very strong signals.

[uk.televes.com/tforce](http://uk.televes.com/tforce)



**BEXIA**



**Outdoor performance, indoors**

BEXIA is a DVB-T / T2 indoor antenna with a clean and sleek design, with technology used to achieve the performance of an outdoor antenna. BEXIA does not have to be aligned to the signal, and also impresses with a certain power consumption.



## TV DISTRIBUTION TERRESTRIAL ANTENNAS

Televes

Ref.	Description		
<b>INTELLIGENT (WITH BOSSTECH)</b>			
<b>ACCESSORIES</b>			
<b>Power supply units</b>			
5501	Domestic Power Supply Unit 1i/2o "F": 5...862MHz 12V-220mA (UK Plug)		1
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
<b>Domestic amplifiers</b>			
545802	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F": 47...694/790MHz G 20dB Vo 101dB $\mu$ V Auto-Adjustment + Output to a TV Outlet G 11dB + Preamp/Powering 12V-100mA, UK plug (Blister T1)	AUTOLTE	8
545901	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F": 47...694/790MHz G 20dB Vo 101dB $\mu$ V w/ USOS + Output to a TV Outlet G 11dB + Preamp/Powering 12V-100mA	AUTOLTE	1
★ 560521	PicoKom Domestic Amplifier 1i/1o "EasyF": 47...694MHz G 14/20dB Vo 102/105dB $\mu$ V Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
★ 560522	PicoKom Domestic Amplifier 1i/2o "EasyF": 47...694MHz G 10/16dB Vo 98/101dB $\mu$ V Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
★ 560523	PicoKom Domestic Amplifier 1i/(2o+TV) "EasyF": 47...694MHz G 10/16dB Vo 98/101dB $\mu$ V Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
<b>Accessories</b>			
4947	Coaxial Atmospheric Surge Arrestor 90V 0...3GHz		1/20
Ref.	Description		
<b>PASSIVE</b>			
<b>VHF AND MIXED</b>			
<b>FM antenna</b>			
1201	FM Terrestrial Antenna 88...108MHz Circular G 1dBi		1/5
<b>BIII or DAB antenna</b>			
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
<b>UHF</b>			
<b>Yagi antenna</b>			
111940	Yagi Edge Terrestrial Antenna UHF (Ch21-60) 12 Elements G 10dBi (Multiple Packing)	LTE790	15
111941	Yagi Edge Terrestrial Antenna UHF (Ch21-60) 12 Elements G 10dBi (Multiple packing)	LTE790	15
802440	Yagi Terrestrial Antenna UHF (Ch21-60) 10 Elements G 8.5dBi	LTE790	15
802441	Yagi Terrestrial Antenna UHF(Ch21-60) 10 Elements G 8.5dBi	LTE790	15
<b>L antenna</b>			
112120	L 700 Terrestrial Antenna UHF (Ch21-48) 18 Elements G 13dBi	LTE700	6
112121	L 700 Terrestrial Antenna UHF (Ch21-48) 18 Elements G 13dBi Black	LTE700	6
<b>V Zenit antenna</b>			
149221	V ZENIT Terrestrial Antenna UHF (Ch21-48) G 15dBi (Single packing)	LTE700	1/6
149222	V ZENIT Terrestrial Antenna UHF (Ch21-48) G 15dBi (Multiple packing)	LTE700	9
149223	V ZENIT Terrestrial Antenna UHF (Ch21-48) G 15dBi (Multiple Packing) Black	LTE700	9
Ref.	Description		
<b>MOBILE DATA (LTE)</b>			
<b>4G</b>			
650101	4GNOVA Antenna 4G/LTE 698...960/1700...2700MHz G 7dBi (0.7m Female "N")		1
650302	Kit: 2x 4G/LTE MIMO Antenna "SMA" 698...960/1700...2700MHz G 1/3,5dBi		1



▲ 5501



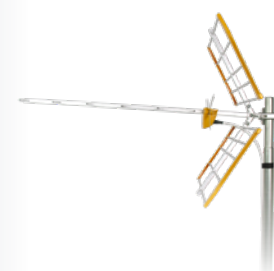
▲ 560523



▲ 802440



▲ 111940



▲ 112120



▲ 149221



▲ 650101



▲ 650302

Ref.	Description		
<b>ALUMINIUM OFFSET SATELLITE DISHES</b>			
<b>QSD SERIES</b>			
<b>QSD75</b>			
7902	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) Orange	●	1
790202	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) Graphite	●	1
790204	QSD High Quality Offset Dish 75 Aluminium G 38.5dBi (750x850mm) White	○	1
<b>QSD85</b>			
7903	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) Orange	●	1
790302	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) Graphite	●	1
790304	QSD High Quality Offset Dish 85 Aluminium G 39.5dBi (850x950mm) White	○	1
<b>ISD SERIES</b>			
<b>630</b>			
793001	ISD Offset Dish 630 Aluminium G 36.2dBi Orange	●	1
793002	ISD Offset Dish 630 Aluminium G 36.2dBi White	○	1
793003	ISD Offset Dish 630 Aluminium G 36.2dBi Graphite	●	1
793011	ISD Offset Dish 630 Aluminium G 36.2dBi Orange (Multiple packing)	●	10
793012	ISD Offset Dish 630 Aluminium G 36.2dBi White (Multiple packing)	○	10
793013	ISD Offset Dish 630 Aluminium G 36.2dBi Graphite (Multiple packing)	●	10
<b>830</b>			
793101	ISD Offset Dish 830 Aluminium G 39dBi Orange	●	1
793102	ISD Offset Dish 830 Aluminium G 39dBi White	○	1
793103	ISD Offset Dish 830 Aluminium G 39dBi Graphite	●	1
793109	ISD Offset Dish 830 Aluminium G 39dBi Graphite (No Televes logo)	●	1
793111	ISD Offset Dish 830 Aluminium G 39dBi Orange (Multiple packing)	●	5
793112	ISD Offset Dish 830 Aluminium G 39dBi White (Multiple packing)	○	5
793113	ISD Offset Dish 830 Aluminium G 39dBi Graphite (Multiple packing)	●	5
793119	ISD Offset Dish 830 Aluminium G 39dBi Graphite (No Televes logo)	●	1



▲ 793001



▲ 793003



▲ 793002



▲ 793109  
ISD without logo

**Compatibility between supports & dishes**

∅ Support	35	45			60	
Dishes	7393	7349	7371	719202	7576	719201
ISD	✓	✓	✓	✓	✓	✓
QSD	✗	✓	✓	✓	✓	✓
<b>Other typical sizes</b>						
600	✓	✓	✓	✓	✗	✗
800	✓	✓	✓	✓	✓	✓
1000	✗	✗	✗	✓	✓	✓
1100	✗	✗	✗	✗	✓	✓
1300	✗	✗	✗	✗	✓	✓

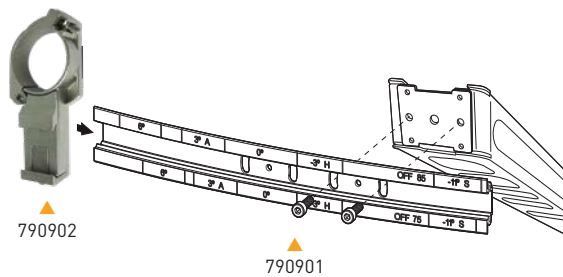
**TV DISTRIBUTION**  
**SATELLITE DISHES**

Ref.	Description		
<b>LNB</b>			
<b>COAXIAL (RF)</b>			
<b>Universal</b>			
746902	Offset LNB Single (Universal) Hh/Vh/HI/VI G 60dB, Grey	●	1/100
747002	Offset LNB Twin (2 Outputs Hh/Vh/HI/VI) G 60dB, Grey	●	1/50
747102	Offset LNB Quattro Hh-Vh-HI-VI G 60dB, Grey	●	1/50
747202	Offset LNB Quad (4 Outputs Hh/Vh/HI/VI) G 60dB, Grey	●	1/50
7475	Offset LNB Single (Universal) Hh/Vh/HI/VI G 60dB	●	1/10
747701	Offset LNB Quattro Hh-Vh-HI-VI G 60dB	●	1/30
747802	Offset LNB Twin (2 Outputs Hh/Vh/HI/VI) G 60dB	●	1/30
761001	Offset LNB Quad (4 Outputs Hh/Vh/HI/VI) G 60dB	●	1/30
761301	Offset LNB Octo (8 Outputs Hh/Vh/HI/VI) G 60dB, Grey	●	1/30
<b>WideBand</b>			
★ 747401	Wideband LNB (2 Outputs H-V) G 56dB	●	1
★ 747402	Wideband LNB (2 Outputs H-V) G 57dB for Overlight solution	●	1
<b>ACCESSORIES</b>			
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	●	1/5
7268	DiSEqC 2.0 Switch 2i/1o 0...2400MHz		1/10
732150	DC Cable "F"- "Jack" Female 0,4m		1
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 112.5dBuV		1/10

Ref.	Description		
<b>MULTI-SATELLITE MOUNTS</b>			
<b>FOR QSD SERIES</b>			
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

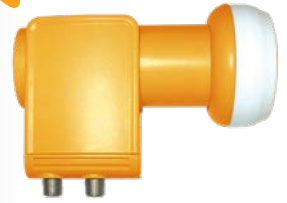
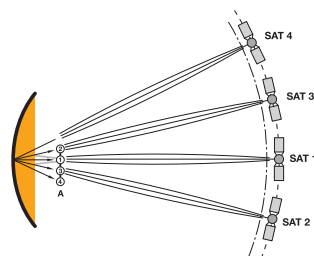


▲ 7485



▲ 790902

▲ 790901



▲ 747402

**LNB Wideband**

It captures the entire frequency spectrum of a satellite and transmits it through two outputs (V-H) in a frequency range between 290 and 2340 MHz.



▲ 7475



▲ 747701



▲ 747802



▲ 761001

Ref.	Description		
<b>MASTS</b>			
<b>SCREW MOUNTING</b>			
<b>Zinc+RCP</b>			
3010	Mast Zinc+RCP 3m x Ø 45mm x Thickness 2mm	●	4
<b>FIXING ACCESSORIES</b>			
4361	Guy Wire Mounting Kit Ø 45mm		1/5
Ref.	Description		
<b>SUPPORTS FOR ANTENNAS</b>			
<b>"L" TYPE</b>			
<b>Zinc+RCP</b>			
7349	"L" Bracket Zinc+RCP Wall Mount 380x350mm / Ø 45mm x Thickness 1.5mm	●	6
7371	"L" Bracket Zinc+RCP Wall Mount 500x450mm / Ø 45mm x Thickness 2mm	●	5
7393	"L" Bracket Zinc+RCP Wall Mount 284x194mm / Ø 35mm x Thickness 1.5mm	●	10
<b>FLOOR MOUNT</b>			
<b>Zinc+RCP</b>			
7576	"T" Bracket Zinc+RCP Ground Mount 750x200mm / Ø 60mm x Thickness 2.9mm	●	1
<b>"Y" TYPE FOR WALL AND FLOOR</b>			
<b>Galvanized</b>			
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
Ref.	Description		
<b>STEEL CABLES</b>			
3034	Galvanized Steel Wire Ø 4mm		100
3059	Galvanized Steel Wire Ø 5mm		100
306001	Galvanized Steel Wire Ø 6mm		200



▲ 3010



▲ 4361



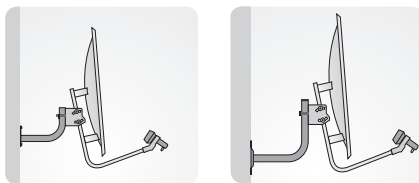
▲ 7393



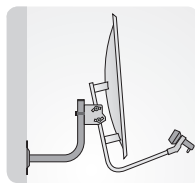
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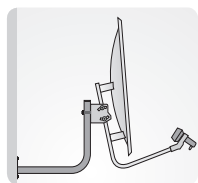
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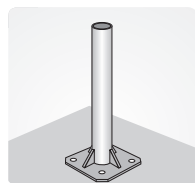
▲ 7393



▲ 7349



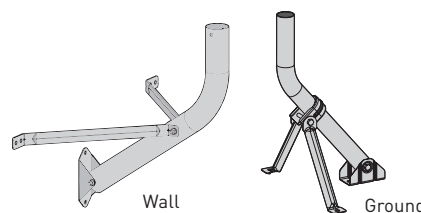
▲ 7371



▲ 7576

**Galvanized brackets**

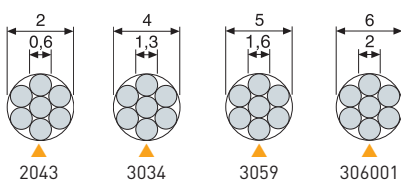
Ref.	Wall mount	Ground mount
719201	551 x 439 mm	620 x 247 mm
719202	728 x 473 mm	720 x 481 mm



Wall

Ground

**Galvanized steel wires (mm)**



2043

3034

3059

306001



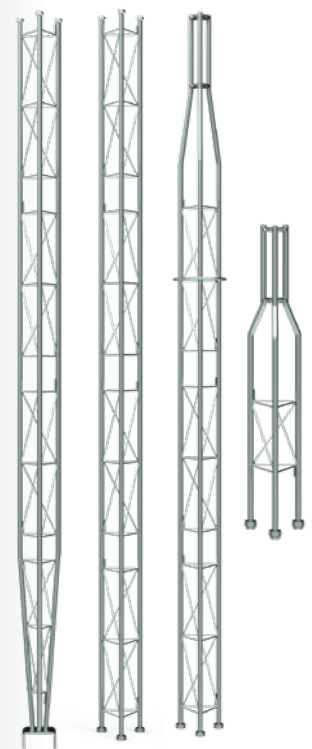


Ref.	Description		
<b>FOR COMMON USE</b>			
<b>PACK TOWER</b>			
306501	"Pack" Tower Galvanized+Orange 2.2m (Mast and Accessories included)	●	1
<b>180 SE TOWER</b>			
<b>Zinc + RCP</b>			
3014	Upper Section 180 SE Tower Zinc+RCP 1.25m (mast Ømax 46mm)	●	1
3015	Upper Section 180 SE Tower Zinc+RCP 2.5m, with Wire Ring (mast Ømax 46mm)	●	1
3017	Middle Section 180 SE Tower Zinc+ RCP 2.5m	●	1
<b>Accessories</b>			
3019	Fixed Embedded Base 180 SE Tower Zinc+RCP	●	1
3020	Fixed Bolting Base 180 SE Tower Zinc+RCP	●	1

Ref.	Description		
<b>MULTIFUNCTION</b>			
<b>180 TOWER</b>			
<b>Zinc + RCP</b>			
3021	Upper Section 180 Tower Zinc+RCP 1m (mast Ømax 46mm)	●	1
3031	Middle Section 180 Tower Zinc+RCP 3m	●	1
3032	Upper Section 180 Tower Zinc+RCP 3m (mast Ømax 46mm)	●	1
3037	Lower Section Pivoting 180 Tower Zinc+RCP 3m	●	1
<b>Zinc + Painting</b>			
303102	Middle Section 180 Tower Zinc+White 3m	○	1
303202	Upper Section 180 Tower Zinc+White 3m (mast Ømax 46mm)	○	1
<b>Hot-Dip Galvanizing</b>			
303101	Middle Section 180 Tower H.D.G. 3m	●	1
303201	Upper Section 180 Tower HDG 3m (mast Ømax 46mm)	●	1
303701	Lower Section Pivoting 180 Tower HDG 3m	●	1
<b>Hot-Dip Galvanizing + Painting</b>			
303103	Middle Section 180 Tower HDG+White 3m	○	1
303203	Upper Section 180 Tower HDG+White 3m (mast Ømax 46mm)	○	1
<b>Accessories</b>			
3029	Embedded Frame 180 Tower Zinc+RPR for Fixed Base (Ref. 3038xx)	●	1
3034	Galvanized Steel Wire Ø 4mm		100
3038	Fixed Bolting/Embedded (with frame) Base 180 Tower Zinc+RCP	●	1
303801	Fixed Bolting/Embedded (with frame) Base 180 Tower HDG	●	1
303802	Fixed Bolting/Embedded (with frame) Base 180 Tower Zinc+White	○	1
303803	Fixed Bolting/Embedded (with frame) Base 180 Tower HDG+White	○	1
3048	Pivoting Embedded Base 180 Tower Zinc+ RCP	●	1
304801	Pivoting Embedded Base 180 Tower HDG	●	1
3058	Guy Wire Ring 180/360 Tower Zinc+RCP	●	20
305801	Guy Wire Ring 180/360 Tower HDG	●	20



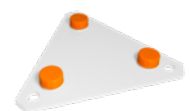
▲ Pack Tower (Ref. 306501)  
Compatible with support Ref. 7349.



▲ 180 Sections







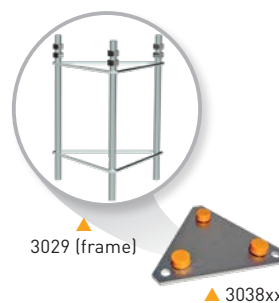
▲ 3048xx



▲ 303803

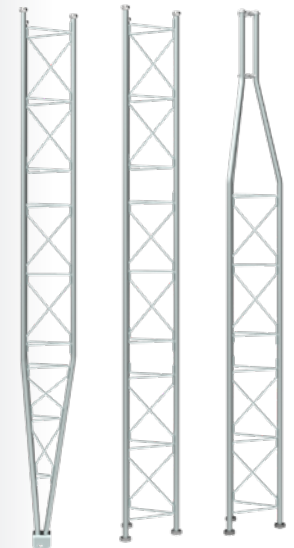
**Types of finishing**

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



Ref.	Description		
<b>MULTIFUNCTION</b>			
<b>360 TOWER</b>			
<b>Zinc + RCP</b>			
3085	Upper Section 360 Tower Zinc+RCP 3m (mast Ømax 52mm)	●	1
3086	Lower Section Pivoting 360 Tower Zinc+RCP 3m	●	1
3087	Middle Section 360 Tower Zinc+RCP 3m	●	1
<b>Zinc + Painting</b>			
308501	Upper Section 360 Tower Zinc+Red 3m (mast Ømax 52mm)	●	1
308502	Upper Section 360 Tower Zinc+White 3m (mast Ømax 52mm)	○	1
308601	Lower Section Pivoting 360 Tower Zinc+Red 3m	●	1
308602	Lower Section Pivoting 360 Tower Zinc+White 3m	○	1
308701	Middle Section 360 Tower Zinc+Red 3m	●	1
308702	Middle Section 360 Tower Zinc+White 3m	○	1
<b>Hot-Dip Galvanizing</b>			
308503	Upper Section 360 Tower HDG 3m (mast Ømax 52mm)	●	1
308603	Lower Section Pivoting 360 Tower HDG 3m	●	1
308703	Middle Section 360 Tower HDG 3m	●	1
<b>Hot-Dip Galvanizing + Painting</b>			
308504	Upper Section 360 Tower HDG+Red 3m (mast Ømax 52mm)	●	1
308604	Lower Section Pivoting 360 Tower HDG+Red 3m	●	1
308605	Lower Section Pivoting 360 Tower HDG+White 3m	○	1
308704	Middle Section 360 Tower HDG+Red 3m	●	1
308705	Middle Section 360 Tower HDG+White 3m	○	1
<b>Accessories</b>			
3058	Guy Wire Ring 180/360 Tower Zinc+RCP	●	20
305801	Guy Wire Ring 180/360 Tower HDG	●	20
3059	Galvanized Steel Wire Ø 5mm		100
3088	Pivoting Embedded Base 360 Tower Zinc+RCP	●	1
308801	Pivoting Embedded Base 360 Tower HDG	●	1
3089	Fixed Embedded Base 360 Tower Zinc+RCP	●	1
308901	Fixed Embedded Base 360 Tower HDG	●	1

Ref.	Description		
<b>WIND INDUSTRY</b>			
<b>450 TOWER</b>			
<b>Zinc + Painting</b>			
3130	Lower Section Pivoting Reinforced 450 Tower Zinc+Red 3m	●	1
3131	Middle Section 450 Tower Zinc+Red 3m	●	1
313101	Middle Section 450 Tower Zinc+White 3m	○	1
3132	Middle Section Reinforced 450 Tower Zinc+Red 3m	●	1
313201	Middle Section Reinforced 450 Tower Zinc+White 3m	○	1
3133	Upper Section 450 Tower Zinc+Red 3m	●	1
<b>Hot-Dip Galvanizing + Painting</b>			
313001	Lower Section Pivoting Reinforced 450 Tower HDG+Red 3m	●	1
313102	Middle Section 450 Tower HDG+Red 3m	●	1
313103	Middle Section 450 Tower HDG+White 3m	○	1
313202	Middle Section Reinforced 450 Tower HDG+Red 3m	●	1
313203	Middle Section Reinforced 450 Tower HDG+White 3m	○	1
313301	Upper Section 450 Tower HDG+Red 3m (mast Ømax 62mm)	●	1
<b>Accessories</b>			
306001	Galvanized Steel Wire Ø 6mm		200
312901	Surface Plate 450/550 Tower for Pivoting Base (Refs. 3134xx & 3142/01) Zinc+RCP	●	1
3134	Pivoting Embedded/Bolting (with plate) Base 450 Tower Zinc+Red	●	1
313401	Pivoting Embedded/Bolting (with plate) Base 450 Tower H.D.G.+Red	●	1
313501	Fixed Embedded Base 450 Tower Zinc+RCP	●	1
313502	Fixed Embedded Base 450 Tower HDG	●	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	●	1
314401	Guy Wire Ring 450/550 Tower HDG	●	1

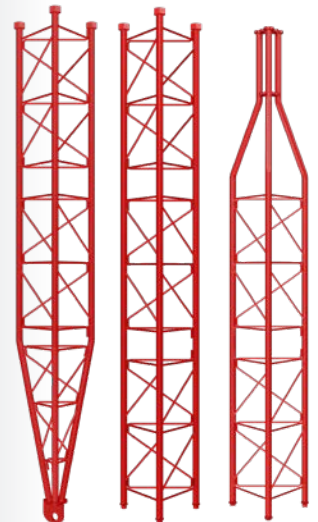


▲ 360 Section

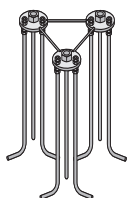


▲ 3088xx

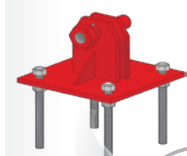
▲ 3089xx



▲ 450 Section



▲ 3135xx

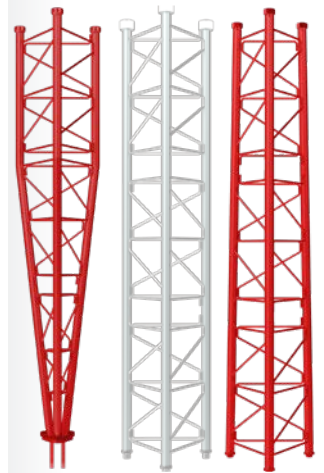


▲ 3134xx

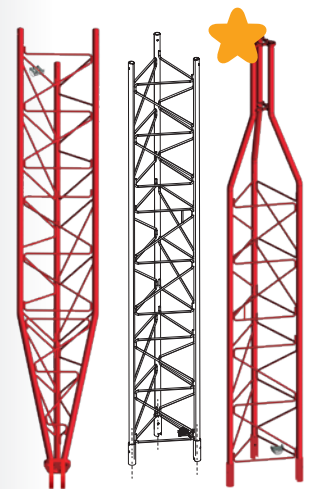


▲ 312901

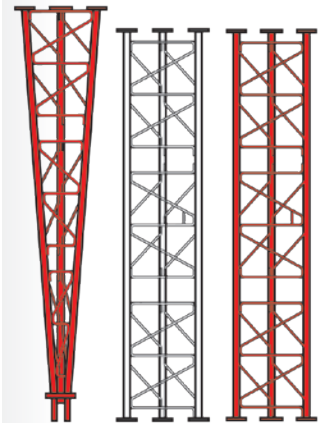
Ref.	Description		
<b>WIND INDUSTRY</b>			
<b>550 TOWER</b>			
<b>Zinc + Painting</b>			
313901	Lower Section Pivoting 550 Tower Zinc+Red 3m	●	1
3140	Middle Section 550 Tower Zinc+Red 3m	●	1
314001	Middle Section 550 Tower Zinc+White 3m	○	1
3141	Transition Section 550 to 450 Tower Zinc+Red 3m	●	1
<b>Hot-Dip Galvanizing + Painting</b>			
313902	Lower Section Pivoting 550 Tower HDG+Red 3m	●	1
314002	Middle Section 550 Tower HDG+Red 3m	●	1
314003	Middle Section 550 Tower HDG+White 3m	○	1
314101	Transition Section 550 to 450 Tower HDG+Red 3m	●	1
<b>Accessories</b>			
306001	Galvanized Steel Wire Ø 6mm		200
312901	Surface Plate 450/550 Tower for Pivoting Base (Refs. 3134xx & 3142/01) Zinc+RCP	●	1
312911	Surface Plate 450XL/550 Tower for Pivoting Base (Refs. 313412 & 3142xx) HDG	●	1
3142	Pivoting Embedded/Bolting (with plate) Base 550 Tower Zinc+Red	●	1
314201	Pivoting Embedded/Bolting (with plate) Base 550/550XL Tower HDG+Red	●	1
3143	Fixed Embedded Base 550 Tower Zinc+RCP	●	1
314301	Fixed Embedded Base 550 Tower HDG	●	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	●	1
314401	Guy Wire Ring 450/550 Tower HDG	●	1
<b>450 XL TOWER</b>			
<b>Hot-Dip Galvanizing + Painting</b>			
313011	Lower Section Pivoting Reinforced 450XL Tower HDG+Red 3m	●	1
313112	Middle Section 450XL Tower HDG+Red 3m	●	1
313113	Middle Section 450XL Tower HDG+White 3m	○	1
313212	Middle Section Reinforced 450XL Tower HDG+Red 3m	●	1
313213	Middle Section Reinforced 450XL Tower HDG+White 3m	○	1
313311	Upper Section 450XL Tower HDG+Red 3m (mast Ømax 62mm)	●	1
<b>Accessories</b>			
312911	Surface Plate 450XL/550 Tower for Pivoting Base (Refs. 313412 & 3142xx) HDG	●	1
313412	Pivoting Embedded/Bolting (with plate) Base 450XL Tower HDG+Red	●	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	●	1
314401	Guy Wire Ring 450/550 Tower HDG	●	1
314502	Buried Plate 450XL/550XL Tower with Guy Wire Ring HDG	●	1
<b>550 XL TOWER</b>			
<b>Hot-Dip Galvanizing + Painting</b>			
★ 313820	Upper Section 550XL Reinforced Tower HDG+Red 3m (mast Ømax 62mm)	●	1
★ 313921	Lower Section Pivoting Reinforced 550XL Tower HDG+Red 3m	●	1
★ 314020	Middle Section Reinforced 550XL Tower HDG+Red 3m	●	1
★ 314021	Middle Section Reinforced 550XL Tower HDG+White 3m	○	1
<b>Accessories</b>			
312911	Surface Plate 450XL/550 Tower for Pivoting Base (Refs. 313412 & 3142xx) HDG	●	1
314201	Pivoting Embedded/Bolting (with plate) Base 550/550XL Tower HDG+Red	●	1
3144	Guy Wire Ring 450/550 Tower Zinc+RCP	●	1
314401	Guy Wire Ring 450/550 Tower HDG	●	1
314502	Buried Plate 450XL/550XL Tower with Guy Wire Ring HDG	●	1
<b>550 ULTRA TOWER</b>			
<b>Hot-Dip Galvanizing + Painting</b>			
313810	Top Mast Holder 550ULTRA Reinforced Tower HDG+Red 0.25m (mast Ømax 62mm)	●	1
313911	Lower Section Pivoting 550ULTRA Reinforced Tower HDG+Red 3m	●	1
314010	Middle Section 550ULTRA Reinforced Tower HDG+Red 3m	●	1
314011	Middle Section 550ULTRA Reinforced Tower HDG+White 3m	○	1
<b>Accessories</b>			
312911	Surface Plate 450XL/550 Tower for Pivoting Base (Refs. 313412 & 3142xx) HDG	●	1
314210	Pivoting Embedded Base 550ULTRA Reinforced Tower HDG+Red	●	1
314401	Guy Wire Ring 450/550 Tower HDG	●	1



▲ 550 Section



▲ 450XL/550XL Sections Reinforced



▲ 550 ULTRA Sections - Reinforced



▲ 312911

**TV DISTRIBUTION**  
**FILTERING AND AMPLIFICATION**

Ref.	Description		
<b>LTE FILTERS</b>			
<b>MICROCAVITIES</b>			
403302	Very High Rejection LTE Microcavities Filter (VHR) "F" 5...782MHz VHF/UHF (Ch59) Selective, Indoor	LTE790	1/14
<b>EASYF FORMAT</b>			
405202	High Rejection LTE Filter (HR) "EasyF" 47...694MHz VHF/UHF (Ch48) Outdoor	LTE700	1/10
405203	High Rejection LTE Filter (HR) "EasyF" 47...694MHz VHF/UHF (Ch48) Outdoor (DC Pass)	LTE700	1/10
<b>PLUG-IN FORMAT</b>			
<b>F connector</b>			
403101	Medium Rejection LTE Filter (MR) "F" 470...774MHz UHF (Ch21-58) Indoor	LTE790	1/10
403201	Medium Rejection LTE Filter (MR) "F" 47...694MHz VHF/UHF (Ch48), Indoor (DC Pass)	LTE700	1/10
403220	High Rejection LTE Filter (HR) "F" 47...694MHz VHF/UHF (Ch48) Indoor	LTE700	1/10
<b>IEC connector</b>			
403210	High Rejection LTE Filter (HR) "IEC" 47...694MHz VHF/UHF (Ch48) Indoor	LTE700	1/10
<b>ACCESSORIES</b>			
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm		1/5

Ref.	Description		
<b>COMBINERS</b>			
<b>MATV (TERRESTRIAL)</b>			
404010	Mast Triplexer 3i/1o "EasyF": BI/FM-BIII/DAB-UHF[dc]	LTE790	1/10
404011	Mast Triplexer 3i/1o "EasyF": BI/FM-BIII/DAB-UHF[dc], Outdoor Black	LTE790	1/10
404110	Mast Triplexer 3i/1o "EasyF": VHF-UHF[dc]-UHF	LTE790	1/10
<b>SMATV (TERRESTRIAL + SATELLITE)</b>			
740710	Double Combiner (47...790/950...2400MHz[dc]) 3i/2o "F": SAT1-MATV-SAT2 / SAT1+MATV-SAT2+MATV	LTE790	1/10
745210	Combiner MATV-SAT 2i/1o "F": 47..790-950..2400MHz[dc]	LTE790	1/10
745220	Mini-Combiner MATV-SAT 2i/1o "F": 47..790-950..2400MHz[dc]	LTE790	10
<b>ACCESSORIES</b>			
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm		1/5
417801	Outdoor Case Black Model for Mini Series Dimensions: External 88x78x39mm Internal 57x47x13mm		1/10



▲ Mini-mixer (745220)  
57 x 47 x 13 mm



▲ 404010



▲ 740710



▲ 745210



▲ 4163

**LTE FILTERS**

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



"EasyF" model



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



**LTE ADAPTATION,**  
**All solutions for all cases**



Ref.	Description		
<b>MAST AMPLIFIERS</b>			
<b>NANOKOM SERIES</b>			
<b>Terrestrial</b>			
561721	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-UHF-VHFmix G 28-28- (-1.5)dB Vo 108dBμV 12...24V Powering (Switchable DC Pass)	LTE700	1/10
561821	NanoKom Mast Amplifier 3i/1o "EasyF": BIII-UHF[dc]-FMmix G 18-28- (-1,5)dB Vo 106/108dBμV w/ USOS 12...24V Powering (Switchable DC Pass)	LTE700	1/10
<b>Terrestrial and satellite</b>			
561421	NanoKom Mast Amplifier 3i/1o "EasyF": UHF-UHF[dc]-SATmix[dc] G 28-28- (-2.5)dB Vo 108dBμV 12...24V Powering (Switchable DC Pass)	LTE700	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
561620	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] G 28- (-1,5) - (-2,5)dB Vo 109dBμV w/USOS. 12...24V Powering (Automatic LTE Filter & Switchable DC Pass)	AUTOLTE	1/10
561621	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] G 24- (-1,5) - (-2,5)dB Vo 104dBμV w/USOS 12...24V Powering (Switchable DC Pass)	LTE700	1/10

Ref.	Description	
<b>DOMESTIC POWER SUPPLY UNITS</b>		
<b>PICOKOM SERIES</b>		
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
<b>F-CONNECTOR SERIES</b>		
5501	Domestic Power Supply Unit 1i/2o "F": 5...862MHz 12V-220mA (UK Plug)	1

Ref.	Description		
<b>KITS: MAST AMPLIFIER WITH POWER SUPPLY</b>			
<b>NANOKOM SERIES</b>			
<b>Terrestrial and satellite</b>			
567810	NanoKom Mast Amplifier 3i/1o "EasyF": UHF[dc]-VHFmix-SATmix[dc] with USOS + PicoKom PSU 1i/2o "EasyF" 12V-200mA (Refs.561621+579401)	LTE700	1
<b>F-CONNECTOR SERIES</b>			
560202	Mast Amplifier 1i/1o "F": UHF + Domest. PSU 1i/2o "F" 12V-220mA (Ref. 560210 & 5501) Black	LTE790	1
<b>IF-MIX SERIES</b>			
8048	Mast Amplifier 2i/4o "EasyF": UHF/Vmix[dc]-SATmix[dc] + Domest.PSU 1i/2o "F" 12V-220mA (UK Plug) (Ref.535401+5501) Black		1

**NANOKOM SERIES**



**LTE 700 READY**

Dimensions:  
90 x 80 x 38mm

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



**LTE 700 READY**

▲ High-gain Mast Amplifier  
120 x 130 x 40 mm



▲ Domestic PSU: PicoKom series  
90 x 68 x 28 mm



▲ Kit 560202  
(Mast amplifier + Domestic PSU)



▲ Domestic PSU: F connector  
145 x 35 x 45 mm

## TV DISTRIBUTION FILTERING AND AMPLIFICATION

Ref.	Description		
<b>DOMESTIC AMPLIFIERS</b>			
<b>PICOKOM SERIES</b>			
<b>MATV (terrestrial)</b>			
★ 560521	PicoKom Domestic Amplifier 1i/1o "EasyF": 47...694MHz G 14/20dB Vo 102/105dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
★ 560522	PicoKom Domestic Amplifier 1i/2o "EasyF": 47...694MHz G 10/16dB Vo 98/101dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
★ 560523	PicoKom Domestic Amplifier 1i/(2o+TV) "EasyF": 47...694MHz G 10/16dB Vo 98/101dBμV Auto-Adjustment + Preamp.Pow. 12V-150mA	LTE700	1/10
<b>IEC AND F CONNECTOR SERIES</b>			
<b>MATV (terrestrial)</b>			
545720	Domestic Amplifier 1i/(2o+TV) "IEC": 47...694MHz G 20dB Vo 110dBμV + Output to a TV Outlet G 12dB + Preamp.Pow. 12V-100mA (Blister T1)	LTE700	8
545802	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F": 47...694/790MHz G 20dB Vo 101dBμV Auto-Adjustment + Output to a TV Outlet G 11dB + Preamplifier Powering 12V-100mA, UK plug (Blister T1)	AUTOLTE	8
545901	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F": 47...694/790MHz G 20dB Vo 101dBμV w/USOS + Output to a TV Outlet G 11dB + Preamplifier Powering 12V-100mA	AUTOLTE	1
552120	Domestic Amplifier 1i/2o "IEC": 47...694MHz G 22dB Vo 104dBμV (Blister T1)	LTE700	8
552220	Domestic Amplifier 1i/(2o+TV) "F": 47...694MHz G 20dB Vo 106dBμV + Output to a TV Outlet G 12dB (Blister T1)	LTE700	8
552320	Domestic Amplifier 1i/(4o+TV) "F": 47...694MHz G 16dB Vo 102dBμV + Output to a TV Outlet G 12dB (Blister T1)	LTE700	8
552740	Domestic Amplifier 1i/1o "IEC": 47...790MHz G 25dB Vo 112dBμV (Blister T1)	LTE790	8
552840	Domestic Amplifier 1i/(2o+TV) "IEC": 47...790MHz G 20dB Vo 106dBμV + Output to a TV Outlet G 12dB (Blister T1)	LTE790	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
553120	Domestic Amplifier 1i/6o "F": 47...694MHz G 14dB Vo 95dBμV (Blister T1)	LTE700	8

### SERIE PICOKOM

easyF

LTE  
700  
READY

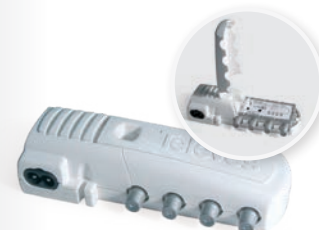


Dimensions:  
90 x 68 x 28 mm

Domestic amplifiers of pleasing design and limited size, with EasyF connection system. Equipped with automatic gain regulation and LTE700 filtering.



▲ Domestic Amplifier:  
"IEC" Connector  
145 x 35 x 45 mm



▲ Domestic Amplifier:  
"F" Connector  
145 x 35 x 45 mm

**TV DISTRIBUTION**  
**FILTERING AND AMPLIFICATION**

Ref.	Description		
<b>LAUNCH AMPLIFIERS</b>			
<b>MINIKOM EASYF SERIES</b>			
<b>MATV (terrestrial)</b>			
562321	MiniKom Amplifier 5i/1o "EasyF": FM-V-U-21..35-39..48/60 G 15-[24 34]-[26 36]-[24 34]-[25 35]dB Vo 113-114-116-116-116dB $\mu$ V Preamp.Powering 12V-200mA Switchable LTE790/700 Filter and DC Pass	700 790	1
562421	MiniKom Amplifier MATV 4i/1o "EasyF": FM-VHF-UHF-UHF G 15-[24 34]-[26 36]-[26 36]dB Vo 113-114-116-116dB $\mu$ V Preamp.lif.Powering 12V-200mA Switchable LTE790/700 Filter and DC Pass	700 790	1
562521	MiniKom Amplifier MATV 3i/1o "EasyF": FM-VHF-UHF G 15-[24 34]-[26 36]dB Vo 113-114-116dB $\mu$ V Preamp.lif.Powering 12V-200mA Switchable LTE790/700 Filter and DC Pass	700 790	1
<b>SMATV (terrestrial + satellite)</b>			
562621	MiniKom Amplifier MATV+SAT 4i/1o "EasyF": FM-VHF-UHF-SAT G 15-[21 31]-[27 37]-35dB Vo 114-114-115-122dB $\mu$ V Preamp.lif.Powering 12V-200mA Switchable DC Pass	LTE700	1
<b>MINIKOM F SERIES</b>			
<b>MATV (terrestrial)</b>			
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 $\mu$ V (+1@16-15/27dB) 12V 30/10mA Preamp.lif./IR Powering (UK Plug)		1
537302	MiniKom Amplifier MATV 1i/1o "F": 47..454/470..862MHz G [20 30]/[28 38]dB Vo 113/116dB $\mu$ V		1
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 $\mu$ V 12V-70mA Preamp.Pow.		1
<b>SMATV (terrestrial + satellite)</b>			
5363	MiniKom Amplifier MATV + SAT 2i/1o "F": [47..862]-[950..2150]MHz G -1.5-35..45dB Vo(SAT) 124dB $\mu$ V		1
539620	MiniKom Amplifier MATV + SAT 4i/1o "F": FM-BIII-UHF-FI G 17-35-39-35..41dB Vo 110-113-114-124dB $\mu$ V 12V-70mA Preamp.lif.Pow.	LTE700	1
<b>SMATV/CATV (return path + terrestrial + satellite)</b>			
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..33/33..38dB Vo (MATV/SAT) 118/124dB $\mu$ V		1
531710	MiniKom Amplifier Return Path + MATV + SAT 1i/1o "F": 5..30/47..862/950..2150MHz G -5/35/33..38dB Vo (MATV/SAT) 120/123dB $\mu$ V		1
<b>DTKOM SERIES</b>			
<b>MATV (terrestrial)</b>			
5338	DTKom Amplifier MATV 1i/1o "F": 47..862MHz G [40 50]dB Vo 123dB $\mu$ V [Remote Powering 12V-50mA]		1
534020	DTKom Amplifier MATV 3i/1o "F": FM-BIII-UHF G 25-[32 42]-[32 42]dB Vo 123dB $\mu$ V 12V-50mA Preamp.lif. Powering	LTE700	1
534120	DTKom Amplifier MATV 5i/1o "F": FM-BIII-21..36-38..48-UHF G 25-[32 42]-[31 41]-[31 41]-[32 42]dB Vo 123dB $\mu$ V 12V-50mA Preamp.lif. Powering	LTE700	1
534121	DTKom Amplifier MATV 5i/1o "F": FM-BIII-21..32-36..48-UHF G [25 25]-[32 42]-[31 41]-[31 41]-[32 42]dB Vo 123dB $\mu$ V 12V-50mA Preamp.lif. Powering	LTE700	1
<b>SMATV/CATV (return path + terrestrial + satellite)</b>			
533501	DTKom Amplifier Return Path + MATV + SAT 1i/1o "F": 5..65/87..862/950..2150MHz G 28/[38 50]/42dB Vo 116/123/123dB $\mu$ V		1
5337	DTKom Amplifier Return Path + MATV + 2SAT 2i/2o "F": [5..65/47..862/950..2150MHz] - [950..2150MHz] G (for 2 outputs) [-5 28]/[30 40]/40dB Vo 115/120/120dB $\mu$ V		1
<b>CATV (return path + terrestrial)</b>			
451203	DTKom Amplifier Return Path + MATV 1i/1o "F": 5..65/87...1006MHz G 28/[30 40]dB Vo 118/129dB $\mu$ 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.televés.com/minikom](http://uk.televés.com/minikom)



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



▲ Amplifiers: DTKom Series  
284 x 140 x 50 mm

**TV DISTRIBUTION**  
**FILTERING AND AMPLIFICATION**

QUICKPRODUCTGUIDE  
2022\_TELEVES\_UK

Ref.	Description		
<b>PROGRAMMABLE AMPLIFIERS</b>			
<b>AVANT X</b>			
<b>Avant X Basic</b>			
532103	Avant X Basic with anti-LTE Filter: Programmable Amplifier with Digital Filtering 5i/1o "F", 2 selectable modes: FM-4x(VHF/UHF) ou FM-DAB-3xUHF G 29-75 or 29-72-75dB Vo 122-122 or 122-119-122dBµV	<b>TFORCE LTE700</b>	1
532113	Avant X Basic-Sat with anti-LTE Filter: Programmable Amplifier with Digital Filtering 6i/2o "F", 2 selectable modes: FM-4x(VHF/UHF)-SAT or FM-DAB-3xUHF-SAT G 25-71-41 or 25-68-71-41dB Vo 118-118-123 or 118-115-118-123dBµV	<b>TFORCE LTE700</b>	1
<b>Avant X Pro</b>			
532123	Avant X Pro with anti-LTE Filter: Programmable Amplifier with Digital Filtering 5i/1o "F", 2 selectable modes: FM-4x(VHF/UHF) ou FM-DAB-3xUHF G 29-75 or 29-72-75dB Vo 122-122 or 122-119-122dBµV Autoprogramming, Monitoring and Report PDF	<b>TFORCE LTE700</b>	1
532133	Avant X Pro-Sat with anti-LTE Filter: Programmable Amplifier with Digital Filtering 6i/2o "F", 2 modes:FM-4x(VHF/UHF)-SAT or FM-DAB-3xUHF-SAT G 25-71-41 or 25-68-71-41dB Vo 118-118-123 or 118-115-118-123dBµV Autoprogramming, Monitoring and PDF Report	<b>TFORCE LTE700</b>	1
<b>POWER SUPPLY UNITS</b>			
994903	Avant X Power Supply Unit 12V-1.5A		1

**PROGRAMMING AVANT SERIES**



**A SIMPLE AND INTUITIVE APPLICATION FOR ANDROID, PC AND MAC**  
USB connection using a OTG cable (included in all the Avant X models)



**AUTOMATIC PROGRAMMING WITH A SINGLE KEY!**  
(only on PRO model)



**COMPATIBLE WITH UNIVERSAL PROGRAMMER**  
(Ref.7234, not included)

asuite.televes.com

**AVANT X PROGRAMMABLE HEADEND AMPLIFIER DIGITAL FILTERING AND PROCESSING**

**A NEW EVOLUTIVE STAGE**

DIGITAL PROCESSING TECHNOLOGY IMPLEMENTED ON TERRESTRIAL TV SIGNALS



Internal filtering against LTE signals (4G/5G)

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



**TFORCE TECHNOLOGY** 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)



**TV DISTRIBUTION**  
**FILTERING AND AMPLIFICATION**

Ref.	Description		
<b>SINGLE-CHANNEL AMPLIFICATION</b>			
<b>T12 SERIES</b>			
<b>Single-channel amplifiers</b>			
★ 509012	T12 Single Channel Amplifier FM/DAB 87,5...108/174...230MHz G 40/48dB Vo115/115dBμV	LTE700	1
509812	T12 Single Channel Amplifier High Selectivity UHF 470...862MHz G 50dB Vo 125dBμV	LTE700	1
<b>Power supply unit</b>			
549812	T12 Switch-mode Power Supply Unit 60W 24V-2.5A		1
Ref.	Description		
<b>COMPLEMENTS</b>			
<b>ATTENUATORS</b>			
4005	Adjustable Attenuator "F" 0 to 20dB 5...2200MHz DC Pass		1/10
4315	Adjustable Attenuator "IEC" Ø 9.5mm 1 to 25dB VHF/UHF DC Pass (Bag B1)		10
<b>FILTERS</b>			
4007	Notch Filter "F" UHF (Ch21-69) 1 Channel & 1 Adjustment		1/10
<b>LINE AMPLIFIERS</b>			
400620	Line Amplifier UHF 1i/1o "F": 470...694MHz G 13dB Vo 98dBμV (Plug-in)	LTE700	1/10
7485	Line Amplifier 1i/1o "F": UHF/SAT[dc] G -2.5/20dB Vo 112.5dBμV		1/10
<b>ELECTRICAL PROTECTION</b>			
4947	Coaxial Atmospheric Surge Arrestor 90V 0...3GHz		1/20
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
<b>SUPPORTS AND CABINETS</b>			
5069	Lockable Cabinet 648mm (1 PSU + 14 T12/T05 Modules)		1
5071	Wall Mount 498mm (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)		1
5072	Lockable Cabinet 498mm (1 PSU + 10 Modules T12/T05)		1
5239	Wall Mount 560mm (1 PSU + 8 T.OX Modules or 12 T12/T05 Modules)		1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)		1
<b>ACCESSORIES</b>			
216810	OTG USB C-microUSB B Cable Male-Male 1m Black for Avant X/6 (Bag B2)		1
4061	Terminal Load "F" 750hm with DC Blocked		10/200
4071	DC Blocker "F"		10
5074	T12 "F" Connector Link Push Fit Type, 48mm		10
7234	Universal Programmer T.OX/T05/AVANT		1



▲ 509812



▲ 549812



▲ 5072



▲ 5069



▲ 216810



▲ 549812

▲ 5301



▲ 4007



▲ 7485



▲ 4071



▲ 4315

Ref.	Description	
<b>T.0X SERIES</b>		
<b>TRANSMODULATORS: SATELLITE INPUT (SMATV)</b>		
<b>IP output</b>		
565801	T.0X Streamer DVBS/S2-IP CI (Multicast/Unicast, SPTS) Multiplexer: 3 Transponders(2Sat) or 3 Transponders(1Sat+LoopThru) : 32 IP Streams	1
<b>Digital Terrestrial Output</b>		
563101	T.0X Transmodulator DVBS/S2-COFDM (47...862MHz)	1
563301	T.0X Transmodulator DVBS/S2-COFDM CI (47...862MHz)	1
564201	T.0X Transmodulator DVBS/S2-COFDM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :1Ch or 3 Transponders(1Sat+LoopThru) :1Ch	1
564301	T.0X Twin Transmodulator DVBS/S2-COFDM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :2Ch or 3 Transponders(1Sat+LoopThru) :2Ch	1
<b>Digital Cable Output</b>		
563001	T.0X Twin Transmodulator DVBS/S2-QAM (47...862MHz)	1
564101	T.0X Transmodulator DVBS/S2-QAM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :1Ch or 3 Transponders(1Sat+LoopThru) :1Ch	1
564401	T.0X Twin Transmodulator DVBS/S2-QAM CI (47...862MHz) Multiplexer: 3 Transponders(2Sat) :2Ch or 3 Transponders(1Sat+LoopThru) :2Ch	1
564501	T.0X Hexa Transmodulator DVBS/S2-QAM (47...862MHz)	1
<b>TRANSMODULATORS: DIGITAL TERRESTRIAL INPUT (MATV)</b>		
<b>IP output</b>		
565701	T.0X Streamer DVB-T/T2-IP CI (Multicast/Unicast, SPTS) Multiplexer: 4 Channels (DVB-T/T2) : 32 IP Streams	1
<b>Digital Terrestrial Output</b>		
565101	T.0X Twin Transmodulator DVBT/T2-COFDM CI (47...862MHz) Multiplexer: 2 Channels (DVB-T/T2) : 2 Channels (DVB-T)	1
<b>Digital Cable Output</b>		
565201	T.0X Twin Transmodulator DVBT/T2-QAM CI (47...862MHz) Multiplexer: 2 Channels (DVB-T/T2) : 2 Channels (DVB-T)	1
<b>ENCODERS: AUDIO/VIDEO INPUT</b>		
<b>Digital Terrestrial or Cable Output</b>		
563822	T.0X Encoder/Modulator Quad, 4i A/V: CVBS - 1Mux: COFDM/QAM (MPEG2/4)	1
563832	T.0X Encoder/Modulator Twin, 2i: HDMI / Component (YPbPr) - 1Mux: COFDM/QAM (MPEG2/4)	1
566001	T.0X Encoder/Modulator Single 1i: HDMI / Component(YPbPr) / CVBS - 1Mux: COFDM/QAM (MPEG2/4) (Standalone support + PSU 18V included)	1
<b>Digital Terrestrial or Cable Output and IP</b>		
563852	T.0X 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
<b>ENCODERS: AUDIO/VIDEO INPUT AND IP</b>		
<b>Digital Terrestrial or Cable Output</b>		
563852	T.0X 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
<b>MODULATORS: AUDIO/VIDEO INPUT</b>		
<b>Analogue Output</b>		
5806	T.0X Twin Modulator Analogue A/V-PAL Stereo (VSB 47...862MHz)	1

**STREAMERS T.0X IP**



▲ 565801 ▲ 565701

Streamers generating an IP encapsulated output from the multiplexing of the services available in:

- Up to 3 different TV SAT transponders: Ref. 5658xx.
- 4 different DVB-T or DVB-T2 muxes: Ref. 5657xx.

In addition, modules 565840/565740 has the option to re-encrypt the IP services decrypted by the CAM with a DRM Pro: Idiom solution (Digital Rights Management), for secure delivery of contents.



▲ T.0X Encoders

Generate your own DTT content in High Definition.



▲ 5806

**TV DISTRIBUTION**  
**PROCESSING HEADENDS**

Ref.	Description	
<b>T.OX SERIES</b>		
<b>A/D CHANNEL PROCESSORS</b>		
564901	T.OX Twin Processor Analogue/Digital Channel (47...862MHz)	1
<b>HEADEND CONTROL</b>		
<b>CDC Modules</b>		
5559	T.OX Headend Management Unit CDC IP	1
555911	T.OX Headend Management Control CDC IP/3G	1
<b>AUXILIARY EQUIPMENT</b>		
<b>Amplifier</b>		
5575	T.OX Amplifier Push-Pull 47...862MHz G 44dB Vo 120dBµV	1
<b>Power Supply Units</b>		
562802	Power Supply Unit 38.4W 24V-1.6A (T.OX standalone mounting)	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
562910	T.OX Switch-mode Power Supply Unit 60W 24V-2.5A	1
<b>Combiner</b>		
565002	Combiner 7i/1o: 5...1002MHz, 19" Rack Mount, 1RU	2
<b>Supports and enclosures</b>		
5071	Wall Mount 498mm (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)	1
507203	Lockable Cabinet with Forced Ventilation 448mm (1 PSU + 7 T.OX Modules)	1
507204	Lockable Cabinet with Forced Ventilation 327mm (1 PSU + 4 T.OX Modules)	1
5239	Wall Mount 560mm (1 PSU + 8 T.OX Modules or 12 T12/T05 Modules)	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)	1
567401	Standalone Support (1 T.OX Module)	10
<b>Programmer</b>		
7234	Universal Programmer T.OX/T05/AVANT	1
<b>Accessories</b>		
216801	Kit: PC-Module Cable & USB-Serial Adapter. Utilities: TSuite (T.OX, T05)	1
216802	Kit: OTG USB - microUSB B Cable & WiFi Adapter. Utilities: Streamers T.OX WiFi Control	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
4947	Coaxial Atmospheric Surge Arrestor 90V 0...3GHz	1/20
5673	T.OX Blank Plate 50mm - 5RU	1



▲ 5559



▲ 507204



▲ 507203  
(T.OX units not included)



▲ 216802



▲ 567401



▲ 5239



▲ 565002



▲ 5301

Ref.	Description	
<b>T.OX SERIES</b>		
<b>OPTICAL TRANSMITTERS</b>		
<b>Forward path TX</b>		
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
234305	T.OX Optical Transmitter SMATV 1550nm "SC/APC" Po 5dBm 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
234811	T.OX Optical Transmitter CATV 1550nm "SC/APC" Po 10dBm w/o Return Path RF Automatic Adjustment and Temperature Stability	1
<b>OPTICAL RECEIVERS</b>		
<b>Forward path RX / Return path TX</b>		
2335	T.OX Optical Receiver SMATV 1200...1600nm "SC/APC" w/o Return Path	1
<b>Return path RX</b>		
234901	T.OX Return Path Optical Receiver (5...300MHz) 1270...1650nm "SC/APC", with AGC	1
<b>AUXILIARY EQUIPMENT</b>		
<b>Amplifiers</b>		
234220	T.OX Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology)	1
234221	T.OX Optical Amplifier / Multiplexer "SC/APC" 19dBm (EDFA Tecnology) 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
<b>Power supply units</b>		
562802	Power Supply Unit 38.4W 24V-1.6A (T.OX standalone mounting)	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
562910	T.OX Switch-mode Power Supply Unit 60W 24V-2.5A	1
<b>Splitters</b>		
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
<b>Multiplexers (WDM)</b>		
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
<b>Mounts and housings</b>		
5071	Wall Mount 498mm (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)	1
507203	Lockable Cabinet with Forced Ventilation 448mm (1 PSU + 7 T.OX Modules)	1
507204	Lockable Cabinet with Forced Ventilation 327mm (1 PSU + 4 T.OX Modules)	1
5239	Wall Mount 560mm (1 PSU + 8 T.OX Modules or 12 T12/T05 Modules)	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)	1
<b>Accessories</b>		
4061	Terminal Load "F" 75ohm with DC Blocked	10/200
4071	DC Blocker "F"	10
5673	T.OX Blank Plate 50mm - 5RU	1



▲ 234801/234811



▲ 234221 ▲ 234228



▲ 234401 ▲ 234501 ▲ 234601



▲ 234701 ▲ 234702



▶ 5629



▶ 562910



Ref.	Description	
<b>19" RACK FORMAT</b>		
<b>OPTICAL TRANSMITTERS</b>		
<b>Forward path TX</b>		
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
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
<b>AMPLIFIERS</b>		
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
769611	Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 33i: 32x1310/1490nm - 1x1550nm, 32o: 32x1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 2RU	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
769620	Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769622	Optical Amplifier 1i/8o: 1550nm "SC/APC" 10dBm (EDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769623	Optical Amplifier 1i/8o: 1550nm "SC/APC" 20dBm (YEDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769630	Optical Amplifier / Multiplexer "SC/APC" 20dBm (EDFA Technology) 2i:1x1310/1490nm - 1x1550nm, 1o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769631	Optical Amplifier / Multiplexer "SC/APC" 14dBm (EDFA Technology) 5i:4x1310/1490nm - 1x1550nm, 4o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769632	Optical Amplifier / Multiplexer "SC/APC" 10dBm (EDFA Technology) 9i:8x1310/1490nm - 1x1550nm, 8o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
<b>STAND-ALONE INSTALLATION (FIBERKOM SERIES)</b>		
<b>OPTICAL TRANSMITTERS</b>		
<b>Forward path Tx</b>		
238201	FiberKom Optical Transmitter SMATV 1310nm "SC/APC" Po 3dBm w/o Return Path (Remote Powering)	1
<b>OPTICAL NODE SOLUTIONS</b>		
<b>NODES</b>		
<b>Without return path (receiver)</b>		
231201	Outdoor Optical Receiver 1200...1600nm "SC/APC" without Return Path with Amplifier 1o: 87...862/950...2150MHz (Local Powering)	1
231220	Outdoor Optical Receiver 1200...1600nm "SC/APC" without Return Path (1 Fibre) with Amplifier 2o: 40...1006MHz, OLC Technology (Local Powering)	1
<b>MINI-NODES (FIBERKOM SERIES)</b>		
<b>With return path (mini-node)</b>		
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
238004	FiberKom Optical Mini-node 1550nm "SC/APC" Return Path 1610nm (1 Fibre) with Amplifier 105...1218MHz DOCSIS 3.1 Compatible. OLC Technology (Remote Powering)	1
238005	FiberKom Optical Mini-node 1550nm "SC/APC" Return Path 1610nm (1 Fibre) with Amplifier 105...1218MHz DOCSIS 3.1 Compatible. OLC Technology (Local Powering)	1
<b>Without return path (mini-receiver)</b>		
238079	FiberKom Optical Mini-receiver 1200...1600nm "SC/APC" without Return Path (1 Fibre) with Amplifier 47...1006MHz, OLC Technology (Local Powering)	1
238101	FiberKom Optical Mini-receiver 1200...1600nm "SC/APC" without Return Path (1 Fibre) with Amplifier 47...1006MHz, OLC Technology (Remote Powering)	1
<b>MICRO-NODES</b>		
<b>Without return path (micro-receiver)</b>		
2311	Domestic Optical Receiver 1200...1600nm "SC/APC" with Amplifier 87...862/950...2400MHz with Automatic Adjustment	1
231110	Domestic Optical Receiver 1200...1600nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology	1
231111	Domestic Optical Receiver 1550nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology	1



▲ 769902



▲ 769903



▲ 769632



▲ 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



Ref.	Description		
<b>TV THROUGH OPTICAL FIBRE: OVERLIGHT SERIES (MAX. 64 USERS)</b>			
<b>LNB</b>			
★ 747402	Wideband LNB (2 Outputs H-V) G 57dB for Overlight solution	●	1
<b>OPTICAL TRANSMITTERS</b>			
★ 237501	Overlight Optical Transmitter CWDM "SC/APC" 9dBm 64 users 3i: 2x 290...2340MHz(Sat) – RF(Terr.), 1o: 1550nm(Sat+Terr)		1
★ 237502	Overlight Optical Transmitter CWDM "SC/APC" 10dBm 64 users 3i: 2x 290...2340MHz(Sat) – RF(Terr.), 1o: 1310nm(Sat+Terr)		1
<b>OPTICAL RECEIVERS</b>			
★ 237520	Overlight Optical Receiver dCSS "SC/APC" 1i: 1100...1650nm(Sat+Terr.), 4o: 2x (dCSS/Legacy+Terr.), 2x (Terr.) (SKY version)		1
★ 237530	Overlight Optical Receiver dCSS "SC/APC" 1i: 1100...1650nm(Sat+Terr.), 4o: (dCSS/Legacy+Terr.) (SKY version)		1
★ 237540	Overlight Optical Receiver Quattro "SC/APC" FM/DAB/UHF-SAT		1
<b>TV THROUGH OPTICAL FIBRE (MAX. 32 USERS)</b>			
<b>LNB</b>			
★ 747401	Wideband LNB (2 Outputs H-V) G 56dB	●	1
<b>KIT: LNB AND OPTICAL CONVERTER</b>			
★ 237411	Kit: WideBand LNB (Ref. 747401)+ Optical Transmitter "FC/UPC" 7dBm 32 users 1550nm (Ref. 237401)		1
★ 237412	Kit: WideBand LNB (Ref. 747401) + Optical Transmitter "FC/UPC" 8dBm 32 users 1310nm (Ref. 237402)		1
<b>OPTICAL TRANSMITTERS</b>			
★ 237401	Optical Transmitter "FC/UPC" 7dBm 32 users 1550nm (DAB/VHF/UHF/SAT)		1
★ 237402	Optical Transmitter "FC/UPC" 8dBm 32 users 1310nm (DAB/VHF/UHF/SAT)		1
<b>CONVERTERS</b>			
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
237201	dCSS Optical/RF Converter GTU "FC/PC" –"F" Twin FM/DAB/UHF-SAT		1
<b>OPTICAL SYSTEMS WITH WDM</b>			
<b>Full SAT + DTT</b>			
237301	Optical Transmitter / Multiplexer "SC/APC". 2i: 1310/1490nm(Sat) - RF(Terr.), 1o: 1310/1490/1550nm(Sat/Terr.), 6dBm		1
237320	Optical Receiver / Demultiplexer "SC/APC" [-8...+1dBm) with Satellite Selection Switch. 1i: 1310/1550nm(Sat/Sat+Terr.), 4o: RF(Sat+Terr.) Vo 78dBµV DIN rail installation		1
<b>Fiber4Sat</b>			
237901	Optical Transmitter / Multiplexer DWDM "SC/APC" 9dBm 5i: 4x 1100...1650nm(Sat) - RF(Terr.), 1o: 1550nm(4xSat+Terr)		1
237902	Optical Transmitter / Multiplexer CWDM "SC/APC" 6dBm 5i: 4x 1100...1650nm(Sat) - RF(Terr.), 1o: 1550nm(4xSat+Terr)		1
237910	Optical Transmitter / Multiplexer Module DWDM "SC/APC" 9dBm 3i: 2x 1100...1650nm(Sat) - RF(Terr.), 1o: 1550nm(2xSat+Terr)		1
237920	Optical Transmitter / Multiplexer CWDM Module "SC/APC" 6dBm 3i: 2x 1100...1650nm(Sat) - RF(Terr.), 1o: 1550nm(2xSat+Terr)		1
<b>WDM Multiplexers</b>			
234755	DWDM Component, Optical Multiplexer / Demultiplexer 1i/4o "FC/PC": 1550,12nm (Ch34) / 1550,92nm (Ch33) / 1551,72nm (Ch32) / 1552,52nm (Ch31)		1
234756	CWDM Component, Optical Multiplexer / Demultiplexer 1i/4o "FC/PC": 1510/1530/1550/1570nm		1
<b>ACCESSORIES</b>			
2354	Simplex F.O. Adapter Single-Mode "FC" Female – "FC" Female		5
2356	Simplex F.O. Adapter Single-Mode "FC" Female – "SC" Female		5
237050	Power Supply Unit 20V-1.2A (for Ref. 237003/236903)		1
732101	Power Supply Unit 12V-0.8A		1
732210	Power Supply Unit 12V-1.5A (UK plug)		1
732802	Power Supply Unit 12.5V-2.8A		1

**OVERLIGHT SERIES**

ENHANCED ELECTRONICS AND OPTICAL ENGINEERING THAT LIGHT UP YOUR TV



▲ 237501

Distribution of satellite and terrestrial signals to multiple users through a single optical fibre.

- High output level
- Preserves the signal quality
- Optimized electronic design
- dCSS SKY compatible



▲ 237301



▲ 237320

▲ Full DTT + SAT system over optical fibre with WDM



▲ 237901

Fiber4Sat: Transmission of content from 2 to 4 satellites and DTT through optical fibre using DWDM or CWDM

For more information about optical fibre cabling and distribution elements, see the DataCom section.

**TV DISTRIBUTION**  
**MULTISWITCHES**

Ref.	Description	
<b>EUROSWITCH SERIES</b>		
<b>5X - 1 SATELLITE</b>		
<b>Multiswitches</b>		
★ 719501	Multiswitch 5x5x4 "F" Terminal/Cascade	1
★ 719502	Multiswitch 5x5x6 "F" Terminal/Cascade	1
★ 719503	Multiswitch 5x5x8 "F" Terminal/Cascade	1
★ 719504	Multiswitch 5x5x12 "F" Terminal/Cascade	1
★ 719505	Multiswitch 5x5x16 "F" Terminal/Cascade	1
★ 719506	Multiswitch 5x5x24 "F" Terminal/Cascade	1
★ 719507	Multiswitch 5x5x32 "F" Terminal/Cascade	1
<b>9X - 2 SATELLITE</b>		
<b>Multiswitches</b>		
719601	Multiswitch 9x9x8 "F" Terminal/Cascade	1
★ 719602	Multiswitch 9x9x12 "F" Terminal/Cascade	1
719603	Multiswitch 9x9x16 "F" Terminal/Cascade	1
719604	Multiswitch 9x9x24 "F" Terminal/Cascade	1
719605	Multiswitch 9x9x32 "F" Terminal/Cascade	1
<b>Accessories</b>		
719609	Amplifier 9x9 "F" Ret.P/MATV/IF G -/27/31dB Vo 114/118dBμV	1
<b>17X - 4 SATELLITE</b>		
<b>Multiswitches</b>		
719801	Multiswitch 17x17x8 "F" Terminal/Cascade	1
719803	Multiswitch 17x17x16 "F" Terminal/Cascade	1
719804	Multiswitch 17x17x24 "F" Terminal/Cascade	1
719805	Multiswitch 17x17x32 "F" Terminal/Cascade	1
<b>Accessories</b>		
719809	Amplifier 17x17 "F" Ret.P/MATV/IF G -/27/31dB Vo 114/118dBμV	1
Ref.	Description	
<b>NEVOSWITCH SERIES</b>		
<b>5X - 1 SATELLITE</b>		
<b>Multiswitches</b>		
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
<b>Quad multiswitches</b>		
714413	Quad Compatible Multiswitch 5x5x8 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714414	Quad Compatible Multiswitch 5x5x12 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714415	Quad Compatible Multiswitch 5x5x16 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714416	Quad Compatible Multiswitch 5x5x24 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714417	Quad Compatible Multiswitch 5x5x32 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
<b>Accessories</b>		
714508	Amplifier 5x5 "F" MATV/IF G 10/11dB Vo 118dBμV	1
714509	Amplifier 5x5 "F" MATV/IF G 27/31dB Vo 114/118dBμV	1
714901	Tap 5x5x5 "F" 12dB	1
714902	Tap 5x5x5 "F" 15dB	1
714903	Tap 5x5x5 "F" 20dB	1
714905	Splitter 5x5x5 "F" 4/4dB	1
714906	Tap 5x5x5 "F" 8dB	1
<b>9X - 2 SATELLITE</b>		
<b>Multiswitches</b>		
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

EUROSWITCH SERIES

SCALABLE RANGE OF MULTISWITCHES WITH EUROPEAN DESIGN, QUALITY AND MANUFACTURING



Thanks to its great compactness and its optimized electronic design, it presents very low through and tap losses.



▲ 719602



▲ 714501



▲ 714601

Ref.	Description	
<b>NEVOSWITCH SERIES</b>		
<b>9X - 2 SATELLITE</b>		
<b>Quad multiswitches</b>		
714211	Quad Compatible Multiswitch 9x9x8 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714212	Quad Compatible Multiswitch 9x9x12 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714213	Quad Compatible Multiswitch 9x9x16 "F" Terminal/Cascade (12V-1.5A PSU with UK plug included)	1
714241	Quad Compatible Multiswitch 9x9x8 "F" Terminal/Cascade	1
714242	Quad Compatible Multiswitch 9x9x12 "F" Terminal/Cascade	1
714243	Quad Compatible Multiswitch 9x9x16 "F" Terminal/Cascade	1
714244	Quad Compatible Multiswitch 9x9x24 "F" Terminal/Cascade	1
714245	Quad Compatible Multiswitch 9x9x32 "F" Terminal/Cascade	1

<b>Accessories</b>		
714609	Amplifier 9x9 "F" Ret.P/MATV/IF G -/27/31dB Vo 112/119dBµV	1

<b>13X - 3 SATELLITE</b>		
<b>Multiswitches</b>		
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

<b>Accessories</b>		
714709	Amplifier 13x13 "F" Ret.P/MATV/IF G -/27/31dB Vo 112/119dBµV	1

<b>17X - 4 SATELLITE</b>		
<b>Multiswitches</b>		
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

<b>Accessories</b>		
714809	Amplifier 17x17 "F" Ret.P/MATV/IF G -/27/31dB Vo 112/119dBµV	1

Ref.	Description	
<b>DCSS NEVOSWITCH SERIES</b>		
<b>5X - 1 SATELLITE</b>		
<b>Multiswitches</b>		
714101	dCSS Multiswitch 5x5x2 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial (SKY version)	1
714102	dCSS Multiswitch 5x5x4 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial (SKY version)	1
714103	dCSS Multiswitch 5x5x8 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial (SKY version)	1
714104	dCSS Multiswitch 5x5x12 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial (SKY version)	1
714105	dCSS Multiswitch 5x5x16 "F" Terminal/Cascade, Switchable Adjustable/Passive Terrestrial (SKY version)	1

Ref.	Description	
<b>POWER SUPPLY UNITS</b>		
<b>12V</b>		
732101	Power Supply Unit 12V-0.8A	1
732210	Power Supply Unit 12V-1.5A (UK plug)	1
732802	Power Supply Unit 12.5V-2.8A	1
<b>18V</b>		
732010	Power Supply Unit 18V-2A (dCSS NevoSwitch/EuroSwitch, UK plug)	1

Ref.	Description	
<b>ACCESSORIES</b>		
3821	"Quick F" Male - "F" Male Adapter, Plastic Box	50/500
401001	Interconnection Plate 10 "Quick F" Connectors, 98x56mm	1/30
401002	Interconnection Plate 8 "Quick F" Connectors, 68x56mm	1/30
401003	Interconnection Plate 8 "Quick F" Connectors, 68x83mm	1/30
4174	Set of 5 Colour Coded Leads "Quick F" 260mm	1/50
732150	DC Cable "F"- "Jack" Female 0,4m	1
7450	Current Injector 10...2150MHz 1...24Vdc-1.5A	1/20
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



▲ 714805

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.televes.com/dcssnevoswitch](https://uk.televes.com/dcssnevoswitch)



▲ 401001



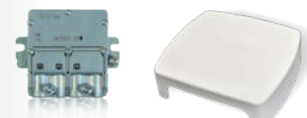
▲ 7450

Ref.	Description		
<b>SPLITTERS</b>			
<b>EASYF SERIES</b>			
<b>Terrestrial + satellite</b>			
434103	Mini-Splitter 5...2400MHz "EasyF" 2W 4.5/4.3dB DC Pass All With Outdoor Mounting Case (Blister T1)	●	10
434202	Splitter 5...2400MHz "EasyF" 4W 9/7.5dB DC Pass O-I With Outdoor Mounting Case (Blister T1)	●	8
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
5449	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
<b>F SERIES</b>			
<b>Terrestrial + Satellite</b>			
5155	Splitter 5...2400MHz "F" 2W 4/5dB Indoor DC Pass All		1/10
5156	Splitter 5...2400MHz "F" 4W 8/10dB 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 11/14dB Indoor DC Pass All		1/10
5159	Splitter 5...2400MHz "F" 8W 12/15dB Indoor DC Pass All		1/10
<b>ACCESSORIES</b>			
4058	Terminal Load "F" 750hm without DC Blocked		10/200
405802	Terminal Load "F" 750hm without DC Blocked, Plastic Box		200
4061	Terminal Load "F" 750hm with DC Blocked		10/200
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	●	1/5
4177	Outdoor Case Black Small Model Dimensions: External 113x88x35mm Internal 92x66x27mm	●	1/5
417801	Outdoor Case Black Model for Mini Series Dimensions: External 88x78x39mm Internal 57x47x13mm	●	1/10
545501	Face Plate White 93x74x21mm	○	10



▲ Mini-Splitter  
57x 47 x 13 mm

**WHITE FACE PLATE FOR MINI SERIES**



▲ 545501

**BLACK OUTDOOR CASE FOR MINI SERIES**



▲ 417801



▲ 434202



▲ 5155



▲ 4177



▲ 4061

Ref.	Description	
<b>TAPS</b>		
<b>EASYF SERIES</b>		
<b>Terrestrial + Satellite</b>		
542503	Mini-Tap 5...2400MHz "EasyF" 2W 12dB Indoor DC Pass I-O (TA - Floor 1)	10
542603	Mini-Tap 5...2400MHz "EasyF" 2W 16dB Indoor DC Pass I-O (A - Floors 2 & 3)	10
542703	Mini-Tap 5...2400MHz "EasyF" 2W 21dB Indoor DC Pass I-O (B - Floors 4...6)	10
542803	Mini-Tap 5...2400MHz "EasyF" 2W 25dB Indoor DC Pass I-O (C - Floors 7...12)	10
544402	Tap 5...2400MHz "EasyF" 4W 12dB Indoor DC Pass I-O (TA - Floor 1)	10
544502	Tap 5...2400MHz "EasyF" 4W 16dB Indoor DC Pass I-O (A - Floors 2 & 3)	10
544602	Tap 5...2400MHz "EasyF" 4W 20dB Indoor DC Pass I-O (B - Floors 4 & 5)	10
544702	Tap 5...2400MHz "EasyF" 4W 25dB Indoor DC Pass I-O (C - Floors 6...8)	10
5492	Tap 5...2400MHz "EasyF" 6W 16dB Indoor DC Pass I-O (TA - Floor 1)	6
5493	Tap 5...2400MHz "EasyF" 6W 20dB Indoor DC Pass I-O (A - Floors 2 & 3)	6
5494	Tap 5...2400MHz "EasyF" 6W 24dB Indoor DC Pass I-O (B - Floors 4 & 5)	6
5610	Tap 5...2400MHz "EasyF" 8W 16dB Indoor DC Pass I-O (TA - Floor 1)	6
5611	Tap 5...2400MHz "EasyF" 8W 22dB Indoor DC Pass I-O (A - Floor 2)	6
<b>F SERIES</b>		
<b>Terrestrial + Satellite</b>		
5130	Tap 5...2400MHz "F" 2W 12dB Indoor (TA - Floor 1)	1/10
5131	Tap 5...2400MHz "F" 2W 15dB Indoor (A - Floors 2 y 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
5135	Tap 5...2400MHz "F" 6W 19dB Indoor (TA - Floor 1)	1/10
5136	Tap 5...2400MHz "F" 6W 21dB Indoor (A - Floors 2 y 3)	1/10
5137	Tap 5...2400MHz "F" 6W 25dB Indoor (B - Floors 4...6)	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
5146	Tap 5...2400MHz "F" 8W 19dB Indoor (TA - Floor 1)	1/10
5147	Tap 5...2400MHz "F" 8W 20dB Indoor (A - Floors 2 y 3)	1/10
5148	Tap 5...2400MHz "F" 8W 25dB Indoor (B - Floors 4...6)	1/10
<b>ACCESSORIES</b>		
4058	Terminal Load "F" 750hm without DC Blocked	10/200
405802	Terminal Load "F" 750hm without DC Blocked, Plastic Box	200
4061	Terminal Load "F" 750hm with DC Blocked	10/200
4163	Outdoor Case Grey Large Model Dimensions: External 136x127x45mm Internal 125x97x35mm	● 1/5
4177	Outdoor Case Black Small Model Dimensions: External 113x88x35mm Internal 92x66x27mm	● 1/5
417801	Outdoor Case Black Model for Mini Series Dimensions: External 88x78x39mm Internal 57x47x13mm	● 1/10
545501	Face Plate White 93x74x21mm	○ 10
Ref.	Description	
<b>OUTLETS</b>		
<b>SCREW-FREE MOUNTING</b>		
<b>Terrestrial + satellite - 3 connectors</b>		
524501	End Outlet Triplexed 5...2400MHz, TV/FM-SAT1-SAT2 1-1.5-1dB with DC Pass	10/100
<b>SCREW MOUNTING</b>		
<b>Terrestrial + satellite - 4 connectors</b>		
516110	Quad End Outlet 5...2200MHz, FM-TV-SAT1-SAT2 8-5-3-2.8dB with DC Pass + Back Box + Face Plate	10/100
<b>ACCESSORIES</b>		
<b>Terminal loads</b>		
4061	Terminal Load "F" 750hm with DC Blocked	10/200



▲ 542503



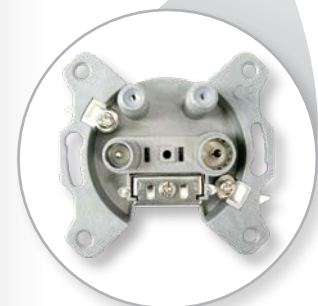
▲ 5132



▲ 5135



▲ 524501

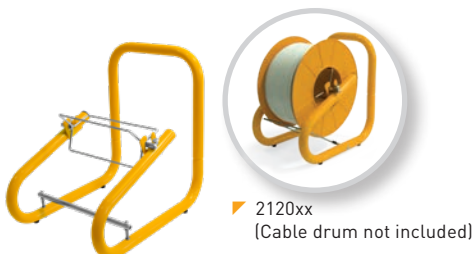


▲ 516110



**TV DISTRIBUTION**  
**COAXIAL CABLES AND CONNECTORS**

Ref.	Description		
<b>CONVENTIONAL COAXIAL CABLES</b>			
<b>TRIPLE SHIELDING - CLASS A++</b>			
<b>CPR B2ca: Copper / copper</b>			
413910	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.05/4.6/6.9mm White	● ○	100
413911	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.05/4.6/6.9mm White	● ○	250
413912	Coaxial Cable SK2020plus LSFH UV Resistant B2ca Class A++ Triple Shielded TSH 18AtC Ø 1.05/4.6/6.9mm White	● ○	500
<b>CPR Cca: Copper / copper</b>			
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
<b>TRIPLE SHIELDING - CLASS A+</b>			
<b>CPR Dca: Copper / copper</b>			
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
<b>CPR Eca: Copper / copper</b>			
413707	Coaxial Cable SK110plus PVC Eca Class A+ Triple Shielded TSH 18VAtC Ø 1.02/4.6/6.70mm Black	● ●	250
<b>TRIPLE SHIELDING - CLASS A</b>			
<b>CPR Cca: Copper / copper</b>			
414211	Coaxial Cable SK2005plus LSFH UV Resistant Cca Class A Triple Shielded TSH 18AtC Ø 1.00/4.6/6.7mm Black	● ●	250
<b>DOUBLE SHIELDING - CLASS A</b>			
<b>CPR Dca: Copper / copper</b>			
214911	Coaxial Cable TR-165 LSFH UV Resistant Dca Class A 11RtC Ø 1.63/7.2/10.1mm Grey	● ●	250
<b>DOUBLE SHIELDING - CLASS B</b>			
<b>CPR Eca: Copper clad steel/aluminium</b>			
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
212702	Coaxial Cable CXT-1 PVC Eca 17VAtC.A Ø 1.00/4.7/6.7mm Black	● ●	250
212703	Coaxial Cable CXT-1 PVC Eca 17VAtC.A Ø 1.00/4.7/6.7mm White	● ○	250
<b>ACCESSORIES</b>			
<b>Dispensers</b>			
212001	Coaxial Cable / Optical Fibre Dispenser, Small model (Plastic drums: Coaxial cable 100m and F.O. 200/300m)		1
212011	Coaxial Cable / Optical Fibre Dispenser, Large model (Plastic drums: Coaxial cable 250m and F.O. 500/750m)		1
<b>Fixing</b>			
200101	Velcro Tape for Cables 8m, Width: 15mm, Black (2 units)	●	1
200102	Velcro Flange for Cables, Width: 15mm, Black (10 units)	●	1
Ref.	Description		
<b>DIRECT-BURIED CABLES</b>			
<b>CPR DCA: COPPER / COPPER</b>			
214001	Coaxial Cable 1/2" LSFH UV Resistant Dca Class A 7RtC Ø 2.7/11.5/15.0mm Grey	● ●	500
214911	Coaxial Cable TR-165 LSFH UV Resistant Dca Class A 11RtC Ø 1.63/7.2/10.1mm Grey	● ●	250



**TRIPLE SHIELDED CABLES**

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

**COVERAGE UP TO 82%**



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.



References		413910 413911 413912	414901 414902	414002 414003 414004	413707
Type		<b>SK2020plus</b>	<b>SK2015plus</b>	<b>SK2003plus</b>	<b>SK110plus</b>
Euroclass		<b>A++</b>	<b>A++</b>	<b>A+</b>	<b>A+</b>
Inner Conductor	Ø mm	B2ca	Cca	Dca	Eca
	Material	1.05	1.05	1.02	1.00
Dielectric	Res. Max. Ohm/Km	Cu	Cu	Cu	Cu
	Ø mm	22	22	22	22
Over Lapped Foil	Material	4.7	4.7	4.6	4.6
	Material	PEE	PEE	PEE	PEE
Braid	Material	B	B	B	B
	Res. Max. Ohm/Km	CuSn	CuSn	CuSn	CuSn
	Nc x Ns x Ø	11	11	11	15
2 <sup>nd</sup> shielding foil	Coverage %	24x7x0.1	24x7x0.1	24x7x0.1	16x6x0.1
Anti-migrating Film		82	82	82	55
Petro-Jelly		Yes	Yes	Yes	Yes
Outer sheath	Ø mm	No	No	No	No
	Material	No	No	No	No
Spark Test		6.9	6.9	6.7	6.7
Minimum bending radius		LSFH UV Resistant	LSFH UV Resistant	LSFH UV Resistant	PVC
Shielding Min. @1GHz		VAC	3000	3000	3000
Capacitance		34.5	34.5	33.5	33.5
Impedance		mm	105	105	95
Transfer impedance		dB	54	54	54
Max. [5-30MHz]		pF/m	75	75	75
Velocity ratio		Ohm	0.9	0.9	2.5
Attenuations (dB/m)		mOhm/m	84	84	84
Frequency (MHz)	5	0.02	0.02	0.02	0.02
	47	0.05	0.05	0.05	0.05
	54	0.05	0.05	0.05	0.05
	90	0.06	0.06	0.06	0.06
	200	0.09	0.09	0.09	0.09
	500	0.14	0.14	0.14	0.14
	698	0.17	0.17	0.17	0.17
	800	0.18	0.18	0.18	0.18
	862	0.19	0.19	0.19	0.19
	950	0.20	0.20	0.20	0.20
	1000	0.21	0.21	0.21	0.21
	1220	0.23	0.23	0.23	0.22
	1350	0.25	0.25	0.25	0.24
	1750	0.28	0.28	0.28	0.28
	2050	0.30	0.30	0.30	0.30
	2150	0.31	0.31	0.31	0.30
	2200	0.32	0.32	0.32	0.31
3000	0.36	0.36	0.36	0.36	

References		414211	214911	214001	2127 212701 212702 212703
Type		<b>SK2005plus</b>	<b>TR-165</b>	<b>1/2"</b>	<b>CXT-1</b>
Euroclass		<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>
Inner Conductor	Ø mm	Cca	Dca	Dca	Eca
	Material	1.00	1.63	2.70	1.00
Dielectric	Res. Max. Ohm/Km	Cu	Cu	Cu	CCS
	Ø mm	22	9	3.2	120
Over Lapped Foil	Material	4.6	7.2	11.5	4.7
	Material	PEE	PEE	PEE	PEE
Braid	Material	B	D	C	B
	Res. Max. Ohm/Km	CuSn	Cu	Cu	Al
2 <sup>nd</sup> shielding foil	Coverage %	14	7	7	30
Anti-migrating Film		16x7x0.1	16x8x0.1	24x8x0.1	16x8x0.1
Petro-Jelly		60	77	77	77
Outer sheath	Ø mm	Yes	No	No	No
	Material	No	No	No	No
Spark Test		No	Yes	Yes	No
Minimum bending radius		6.7	10.1	15.0	6.7
Shielding Min. @1GHz		LSFH UV Resistant	LSFH UV Resistant	LSFH UV Resistant	PVC
Capacitance		VAC	8000	8000	3000
Impedance		mm	33.5	50.0	75.0
Transfer impedance		dB	85	85	75
Max. [5-30MHz]		pF/m	54	53	55
Velocity ratio		Ohm	75	75	75
Attenuations (dB/m)		mOhm/m	5.0	5.0	5.0
Frequency (MHz)	5	0.02	0.01	0.01	0.03
	47	0.05	0.03	0.02	0.05
	54	0.05	0.03	0.02	0.05
	90	0.06	0.04	0.02	0.06
	200	0.09	0.06	0.03	0.09
	500	0.14	0.09	0.06	0.15
	698	0.17	0.10	0.07	0.16
	800	0.18	0.11	0.07	0.17
	862	0.19	0.12	0.08	0.19
	950	0.20	0.12	0.08	0.20
	1000	0.21	0.13	0.09	0.23
	1220	0.23	0.14	0.09	0.25
	1350	0.25	0.15	0.10	0.27
	1750	0.28	0.18	0.12	0.32
	2050	0.30	0.19	0.13	0.35
	2150	0.31	0.20	0.14	0.37
	2200	0.32	0.20	0.14	0.37
3000	0.36	0.24	0.16	0.39	

Sheath	Environment
PVC	Indoor
PE	Outdoor
LSFH	Special (Low Smoke Free of Halogen)

Over Lapped Foil composition Environment
B Aluminium+Polyester
C Copper+Polyester
D Aluminium+Polypropylene+Aluminium

Other abbreviations	
PE Polyethylene	Cu Copper
PEE Foam Polyethylene	CCS Copper Clad Steel
PVC Polyvinyl Chloride	CuSn Tinned Copper
Al Aluminium	

Ref.	Description		
<b>EXTENSION CORDS</b>			
<b>WITH TRIPLE SHIELDING CABLE</b>			
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
385003	Coaxial Cable Lead "F" Compression 500mm White	○	20
385004	Coaxial Cable Lead "F" Compression 430mm White	○	20
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
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
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
385501	Coaxial Cable Lead "F" Compression - "IEC" Female "PRO EasyF" 3m White (Bag B0)	○	20
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
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
<b>WITH DOUBLE SHIELDING CABLE</b>			
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

**CLASS A++**



▲ 3851

**CLASS A++**



▲ 385102

**CLASS A++**



▲ 3858



▲ 431001

## TV DISTRIBUTION COAXIAL CABLES AND CONNECTORS

QUICKPRODUCTGUIDE  
2022\_TELEVES\_UK

Ref.	Description	
<b>CONNECTORS (75 OHM)</b>		
<b>PRO EASYF</b>		
<b>IEC type</b>		
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
<b>"Quick F" type</b>		
413410	"PRO EasyF" "Quick F" Connector Elbowed Class A+ Shielded	25/250
<b>ASSEMBLING</b>		
<b>IEC type</b>		
4130	"IEC" Ø 9.5mm Connector Male Elbowed Shielded	25/250
4131	"IEC" Ø 9.5mm Connector Female Elbowed Shielded (Bag B1)	25/250
<b>"Quick F" type</b>		
4176	"Quick F" Connector Elbowed Shielded	25/250
<b>COMPRESSION</b>		
<b>F type</b>		
3802	"F" Connector Compression for TSH Triple Shielded Cables (SK), Plastic Box	50/500
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
410901	"F" Connector Compression Elbowed for T-100 Cable	25
<b>Kits</b>		
216401	Connection Kit for TSH Coaxial Cables – Carrying case which includes: 50x"F" Compression Connectors (ref. 3802), 1xCable Stripper (ref. 2145), 1xCompression tool (ref. 216301), 1xHEX-11 Wrench (ref. 216101) and 10xCaps (ref. 418001)	1
216403	Connection Kit for T100 Coaxial Cables – Carrying case which includes: 50x"F" Compression Connectors (ref. 4104), 1xCable Stripper (ref. 2145), 1xCompression tool (ref. 216301), 1xHEX-11 Wrench (ref. 216101) and 10xCaps (ref. 418001)	1
<b>THREADED</b>		
<b>F type</b>		
3808	"F" Connector Threaded with O-ring for CXT-5 (Ø 5mm) Cable, Plastic Box	100/1000
417101	"F" Connector Threaded with O-ring for T-100 Cable, Plastic Box	100/1000
417102	"F" Connector Threaded with O-ring for T-100 Cable, Plastic Box	50
9349	"F" Connector Threaded for TR-165 Cable	10/100
<b>ADAPTERS</b>		
381730	"F" Female - "IEC" Male Elbowed Adapter, Plastic Box	50
3821	"Quick F" Male - "F" Male Adapter, Plastic Box	50/500
4173	"F" Female - "F" Female Adapter, Plastic Box	50/500
<b>TERMINAL LOAD</b>		
4058	Terminal Load "F" 750hm without DC Blocked	10/200
405802	Terminal Load "F" 750hm without DC Blocked, Plastic Box	200
4061	Terminal Load "F" 750hm with DC Blocked	10/200
<b>ACCESSORIES</b>		
4071	DC Blocker "F"	10
418001	Weatherproof Cap for "F" Compression & Crimp Connectors	10/250

Ref.	Description	
<b>TOOLS</b>		
<b>FOR COAXIAL CABLE</b>		
2145	Professional Cable Stripper for Coaxial Cable and Data Cable	10
2162	Cable Stripper for Coaxial Cable and Data Cable (Bag B2)	1
<b>FOR CONNECTORS</b>		
216101	Hex-11 Wrench for "F" Connectors	1/250
216120	Tightening Tool for "F" Connectors	1
2163	Tool for "F" Compression Connectors	1
216301	Tool for "F" Straight Compression Connectors	1
216310	Insertion Tool for "F" Compression Connectors	1



▲ 216101



▲ 418001



▲ 216310



▲ Plastic Box

### PRO EasyF Class A+ CONNECTORS

THE  
EXCEPTIONAL  
SCREENING  
FOR A COAXIAL  
NETWORK



▲ 413210

▲ 413310

▲ 413410



▲ 4130



▲ 4176



▲ 410901



▲ 4104



▲ 3808



▲ 9349



▲ 417101 / 417102



▲ 3821



▲ 2163



▲ 216301



▲ 216401

**TV DISTRIBUTION**  
**SET TOP BOXES AND DOMESTIC ACCESSORIES**

Ref.	Description	
<b>SET TOP BOXES</b>		
<b>SATELLITE TV</b>		
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) (HDMI Cable Male-Male 1.5m included)	1/10

Ref.	Description	
<b>A/V AND IR SENDERS</b>		
<b>WIRELESS A/V AND IR SENDERS</b>		
716701	Digidom Transmitter + Receiver HDMI 5GHz	1/10
<b>WIRELESS IR SENDERS</b>		
721903	Digidom Universal Transmitter, Remote Control Extender, 8 Channels	1/50
723703	Digidom Universal Transmitter + Receiver, Remote Control Extender, 8 Channels	1/30

Ref.	Description	
<b>HDMI DISTRIBUTION</b>		
<b>CABLE LEADS</b>		
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

**Televes**



▲ 717402



▲ 717501



▲ 716701



▲ 723703



▲ 494502



▲ 494501



Ref.	Description	
<b>FIELD STRENGTH METERS</b>		
<b>H30 SERIES</b>		
<b>H30+ &amp; H30D+</b>		
★ 593901	H30+: DVB-C	1
★ 593902	H30D+: DVB-C + DOCSIS 3.1	1
★ 593905	H30D+ FULL: DVB-C + DVBT/T2 + DOCSIS 3.1 + WiFi Analyzer + IPTV Analyzer + HEVC display (Carrying Case and Coaxial Cable Lead included)	1
<b>H30FLEX</b>		
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
593311	H30FLEX: DVB-S/S2/T (Carrying Case and Coaxial Cable Lead included)	1
593312	H30FLEX: DVB-S/S2/T/T2 (Carrying Case and Coaxial Cable Lead included)	1
593313	H30FLEX: DVB-S/S2/C (Carrying Case and Coaxial Cable Lead included)	1
593314	H30FLEX: DVB-S/S2/T/T2/C (Carrying Case and Coaxial Cable Lead included)	1
<b>H30Evolution</b>		
593501	H30Evolution: DVB-S/S2 + DVB-T (Smartphone Armband included)	1
593502	H30Evolution: DVB-S/S2 + DVB-T/T2 (Smartphone Armband included)	1
593503	H30Evolution: DVB-S/S2 + DVB-C (Smartphone Armband included)	1
593504	H30Evolution: DVB-S/S2 + DVB-T/T2 + DVB-C (Smartphone Armband included)	1
593505	H30Evolution FULL: Full DVB (-S/S2 + -T/T2 + -C) + IPTV Option + WiFi 2,4/5 GHz Option + HEVC display + Coaxial Cable Lead + Carrying Case (Smartphone Armband included)	1
593511	H30Evolution: DVB-S/S2/T (Carrying Case, Coaxial Cable Lead and Smartphone Armband included)	1
593512	H30Evolution: DVB-S/S2/T/T2 (Carrying Case, Coaxial Cable Lead and Smartphone Armband included)	1
593513	H30Evolution: DVB-S/S2/C (Carrying Case, Coaxial Cable Lead and Smartphone Armband included)	1
593514	H30Evolution: DVB-S/S2/T/T2/C (Carrying Case, Coaxial Cable Lead and Smartphone Armband included)	1

**H30EVOLUTION**



**ALL THE FUNCTIONS YOU NEED NOW IN YOUR SMARTDEVICE**

H30Evolution is a field strength meter that combines the best features of a portable and compact equipment - distinctive of the H30 series - with revolutionary functionalities. Thanks to the innovative multiscreen system based on Wi-Fi/Bluetooth, the meter may be remotely displayed and controlled using any Android or iOS device or a PC, thus providing the flexibility and convenience of a wireless system.

[h30evolution.televes.com](http://h30evolution.televes.com)

[uk.televes.com/h30evolution](https://www.youtube.com/watch?v=uk.televes.com/h30evolution)

**H30FLEX**

**All the functions you need in your hand**



[h30flex.televes.com](http://h30flex.televes.com)

[uk.televes.com/h30flex](https://www.youtube.com/watch?v=uk.televes.com/h30flex)



▲ 593902

Ref.	Description	
<b>FIELD STRENGTH METERS</b>		
<b>H30 SERIES</b>		
<b>H30Crystal</b>		
★ 593601	H30Crystal: DVB-S/S2 + DVB-T, F.O. (Smartphone Armband included)	1
★ 593602	H30Crystal: DVB-S/S2 + DVB-T/T2, F.O. (Smartphone Armband included)	1
★ 593603	H30Crystal: DVB-S/S2 + DVB-C, F.O. (Smartphone Armband included)	1
★ 593604	H30Crystal: DVB-S/S2 + DVB-T/T2 + DVB-C, F.O. (Smartphone Armband included)	1
★ 593621	H30Crystal: DVB-S/S2 + DVB-T, Selective F.O. (Smartphone Armband included)	1
★ 593622	H30Crystal: DVB-S/S2 + DVB-T/T2, Selective F.O. (Smartphone Armband included)	1
★ 593624	H30Crystal: DVB-S/S2 + DVB-T/T2 + DVB-C, Selective F.O. (Smartphone Armband included)	1
<b>Options</b>		
5909	Calibration of Spectrum Analyzer (Certificate Included)	1
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
593250	Option WiFi Analyzer (2,4/5GHz)	1
593251	Option IPTV Analyzer	1
593252	Option HEVC Display	1
<b>Accessories</b>		
593201	Protective Sleeve	1
593202	Replacement Battery	1
593203	Power Supply Unit 12V - 2A All Plugs	1
593205	Ports Protector	1
593239	Carrying Case	1
994101	Car Lighter-type 12V Charger adapter Cable, 1.5m	1/10



**ALL THE FUNCTIONS YOU NEED, ALSO IN FIBRE OPTICS**

The H30Crystal expands H30 series of portable and compact meters by bringing strong efficiency in analyse fibre-optic networks, along with all the features of previous models, makes this equipment a versatile and comprehensive tool for today's professional technicians, who are used to working with several telecommunication network technologies.

[h30crystal.televés.com](http://h30crystal.televés.com)

[uk.televés.com/h30crystal](https://www.youtube.com/watch?v=uk.televés.com/h30crystal)



▲ 593239



▲ 593205

	H30FLEX	H30EVOLUTION	H30CRYSTAL
Multi-standard customizable	✓	✓	✓
Frequency range	Return P: 5-50 MHz	-	✓
	Terrestrial: 50-880 MHz	✓	✓
	Satellite: 250-2400 MHz	✓ (up to 2200MHz)	✓
Screen	2.8" TFT 400 - 240 full color	2.8" TFT 400 - 240 full color	2.8" TFT 400 - 240 full color
Multi-screen with touch control on mobile device	-	✓	✓
Smartphone armband	-	✓	✓
2,4 / 5GHz WiFi connectivity	-	✓	✓
WiFi analyzer	-	✓(*)	✓(*)
Bluetooth connectivity	-	✓	✓
Ethernet interface	✓	✓	✓
USB interface	USB (A-type)	USB (A-type)	USB (A-type)
Optical measures	-	-	✓
Guided satellite pointing	-	✓	✓
IPTV analyzer	-	✓(*)	✓(*)
LNB Wideband compatible	-	✓	✓
HEVC displaying	on the meter	-	✓(*)
	on the mobile device	-	✓(*)
Terrestrial input level to 120dBμV	✓(**)	✓(**)	✓(**)
dCSS compatible	✓(**)	✓(**)	✓(**)
Management interface access (datalogs, channel plan...)	Ethernet cable	Wireless (WiFi/Bluetooth) Ethernet cable	Wireless (WiFi/Bluetooth) Ethernet cable
Dimensions	175x100x52 mm	175x100x52 mm	175x100x52 mm
Weight	510 g.	510 g.	550 g.
Color	Black & White	Black & Grey	Light & dark grey

\* According to reference

\*\* Free activation of the options with the meter registration

Ref.	Description	
<b>FIELD STRENGTH METERS</b>		
<b>MOSAIQ6</b>		
<b>Meters</b>		
596101	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, F.O. (Carrying Bag included)	1
596102	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, F.O. (Carrying Case included)	1
596105	MOSAIQ6 Advance: DVB-T/T2/S/S2/SX/C, CI, F.O., WiFi Analyzer, Analogue Measures, DAB/DAB+, 4K UHD (Carrying Bag included)	1
596111	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, Selective F.O. Interface (CWDM Filter) (Carrying Bag included)	1
596112	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, Selective F.O. Interface (Carrying Case included)	1
596115	MOSAIQ6 Advance: DVB-T/T2/S/S2/SX/C, CI, Selective F.O. Interface (CWDM Filter), WiFi Analyzer, Analogue Measures, DAB/DAB+, 4K UHD (Carrying Bag included)	1
<b>Options</b>		
596201	Option GPS Drive Test	1
596202	Option WiFi Analyzer (2,4/5GHz)	1
596203	Option Analogue Measures	1
596204	Option DAB/DAB+	1
596205	Option 4K - Ultra High Definition (UHD)	1
<b>Accessories</b>		
596210	Stand-alone, field replaceable battery	1
596211	Carrying Bag	1
596212	Adapter "N" Male - "F" Female	1
596213	Screen Protector	1
596214	Carrying Case	1



596214



596211



596210

**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](http://mosaiq6.televes.com)

[uk.televes.com/mosaiq6](https://www.youtube.com/watch?v=uk.televes.com/mosaiq6)



**Centralized management of field meters**

Mycloud is the measurement portal that centralizes the management of all your MOSAIQ6 meters in Televes cloud through a unique interface accessible from any device.

More information: [mycloud.televes.com](http://mycloud.televes.com)

**TV DISTRIBUTION**  
**PROFESSIONAL EQUIPMENT**

Ref.	Description	
<b>SIGNAL GENERATORS</b>		
<b>IF SIMULATOR</b>		
4008	SAT Simulator 950...2150MHz	1
<b>TRIPLE LIGHT SOURCE</b>		
2340	OPS3L Triple Light Source (1310, 1490 & 1550nm)	1
<b>NOISE GENERATOR</b>		
593001	SAT Simulator and Noise Generator 5...3000MHz	1
Ref.	Description	
<b>OPTICAL FIBRE</b>		
<b>FUSION KITS</b>		
<b>Electric arc splice</b>		
232105	F.O Kit: Arc Fusion Splicer + Stripper + Cleaver + Power adapter + Spare set of electrodes + Tweezers + Carrying Case	1
<b>Mechanical splice</b>		
2341	F.O Kit: Connector & Mechanical Splice + Stripper (Ref. 2324) + Cleaver (Ref. 232301) + Cleaning Tools	1
<b>TOOLS AND ACCESSORIES</b>		
2322	Fibre Mechanical Splicer	1
232301	Cleaver of Fibre Optics	1
232310	Kevlar®Scissors for Optical Fibres	1
2324	Precision Stripper for Optical Fibres	1
2325	Stripper for Multi-Fibre Cables	1
2327	Splicing Protection Sleeve 60mm for FO fusion	200
232701	Splicing Protection Sleeve 43mm for FO fusion	200
232710	F.O. Cleaning Kit: 50 isopropyl alcohol Wipes + 25 Sticks	1
2328	Fibre Mechanical Splices	10
2329	Connectors of Fibre Optics "SC/APC" (with mounting tool)	10
232910	Cleaner for Fibre Optic Connectors	1



▲ 4008



▲ 2340



▲ 593001



▲ 2322



▲ 232105



▲ 2325



▲ 232701



▲ 2328



▲ 2341



# Televés DATACOM

Networking and structured cabling products and solutions for data networks in commercial, hospitality and residential environments, aimed at the professional installer and integrator.





Ref.	Description		
<b>CABLES AND PATCH-CORDS</b>			
<b>MULTI-FIBRE</b>			
<b>Tight buffer 250µm</b>			
231414	FK16 Multi-Fibre Cable 16 Single-mode Fibres Indoor/Outdoor UV Resistant LSFH Dca	●	x m
231614	FK24 Multi-Fibre Cable 24 Single-mode Fibres Indoor/Outdoor UV Resistant LSFH Dca	●	x m
231714	FK48 Multi-Fibre Cable 48 Single-mode Fibres Indoor/Outdoor UV Resistant LSFH Dca	●	x m
<b>4 FIBRES</b>			
<b>Tight buffer 250µm</b>			
231911	FK4 Fibre Cable 4 single-mode Fibres Indoor LSFH Fca	○ ●	300
<b>2 FIBRES</b>			
<b>Tight buffer 900µm</b>			
231901	FK2 Fibre Cable 2 Single-mode Fibres Indoor LSFH Dca	○ ●	300
231902	FK2 Fibre Cable 2 Single-mode Fibres Indoor LSFH Dca	○ ●	750
232001	FK2 Fibre Cable 2 Single-mode Fibres Outdoor LSFH UV Resistant Dca	○ ●	200
232002	FK2 Fibre Cable 2 Single-mode Fibres Outdoor LSFH UV Resistant Dca	○ ●	500
<b>PRE-TERMINATED PATCH CORDS</b>			
<b>With SC/APC connectors</b>			
232602	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 2m. Convertible to Pigtail (900µm)	○	25
232611	F.O.Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 10m	●	1
232612	F.O.Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 15m	●	1
232614	F.O.Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 25m	●	1
232616	F.O.Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 40m	●	1
232621	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 2m (Bag B4)	●	10
232623	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 0.5m (Bag B4)	●	20
★ 232626	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 1m (Bag B4)	●	20
232652	F.O.Duplex Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 15m	●	1
232654	F.O.Duplex Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 25m	●	1
232656	F.O.Duplex Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 40m	●	1
232657	F.O.Duplex Patch Cord Single-mode Indoor LSFH Dca "SC/APC" 55m	●	1
<b>With LC/PC connectors</b>			
★ 230601	F.O.Patch Cord Multi-mode OM3 Indoor LSFH "LC/PC" 2m. Convertible to Pigtail (900µm)	●	1
★ 230622	F.O.Duplex Patch Cord Multi-mode OM3 Indoor LSFH "LC/PC" 2m	●	1
★ 232662	F.O.Duplex Patch Cord Single-mode Indoor LSFH "LC/UPC" 2m	●	1
★ 232672	F.O.Patch Cord Single-mode Indoor LSFH "LC/UPC" 2m	●	1
<b>With FC/UPC connectors</b>			
2361	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 3m	●	1
236101	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 5m	●	1
236102	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 10m	●	1
236103	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 20m	●	1
236104	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 30m	●	1
236105	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 40m	●	1
236106	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 50m	●	1
236107	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 75m	●	1
236108	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 100m	●	1
236109	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 200m	●	1
236110	F.O.Patch Cord Shielded Single-mode Outdoor LSFH UV Resistant "FC/UPC" 1m	●	1
<b>Adapter cords</b>			
232622	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC-SC/UPC" 0.2m	●	5
232624	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC-FC/UPC" 2m (Bag B4)	●	10
232625	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC-SC/UPC" 0.4m	●	1
★ 232627	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC-LC/UPC" 2m	●	1

**F.O. CABLES**

Fibre's tight buffer Ø 250µm



▲ 48 Fibres (231714)



▲ 24 Fibres (231614)



▲ 16 Fibres (231414)



▲ 4 Fibres - Indoor (231911)

Fibre's tight buffer Ø 900µm



▲ 2 Fibres - Indoor (231901 / 231902)



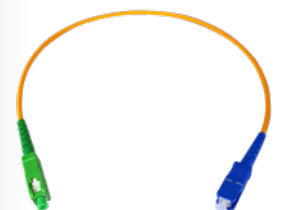
▲ 2 Fibres - Outdoor (232001 / 232002)



▲ 232652

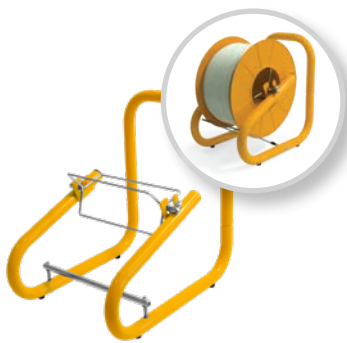


▲ 230622



▲ 232625

Ref.	Description		
<b>CABLES AND PATCH-CORDS</b>			
<b>ACCESSORIES</b>			
<b>Adapters</b>			
233203	Simplex F.O. Adapter Single-Mode "SC/APC" Female - "SC/APC" Female, with Auto-blocking Cap, Plastic Box	25	
233210	Duplex F.O. Adapter Single-Mode "SC/APC" Female - "SC/APC" Female, with Auto-blocking Cap	20/1000	
★ 233211	Duplex F.O. Adapter Multi-Mode "SC" Female - "SC" Female	20/100	
★ 233212	Duplex F.O. Adapter Single-Mode "LC" Female - "LC" Female, Plastic Box	25	
★ 233213	Duplex F.O. Adapter Multi-Mode "LC" Female - "LC" Female, Plastic Box	25	
2354	Simplex F.O. Adapter Single-Mode "FC" Female - "FC" Female	5	
2356	Simplex F.O. Adapter Single-Mode "FC" Female - "SC" Female	5	
<b>Dispensers</b>			
212001	Coaxial Cable / Optical Fibre Dispenser, Small model (Plastic drums: Coaxial cable 100m and F.O. 200/300m)	1	
212011	Coaxial Cable / Optical Fibre Dispenser, Large model (Plastic drums: Coaxial cable 250m and F.O. 500/750m)	1	
<b>Fixing</b>			
200101	Velcro Tape for Cables 8m, Width: 15mm, Black (2 units)	●	1
200102	Velcro Flange for Cables, Width: 15mm, Black (10 units)	●	1



▲ 2120xx  
(Cable drum not included)



▲ 200101



▲ 200102



▲ 233203



▲ 233210



▲ 233211



▲ 233212



▲ 233213

Ref.	Description	
<b>OPTICAL DISTRIBUTION</b>		
<b>SPLITTERS</b>		
235701	Optical Splitter 1310/1550nm "FC/UPC" 2W 4dB	1
235801	Optical Splitter 1310/1550nm "FC/UPC" 3W 5.5dB	1
235901	Optical Splitter 1310/1550nm "FC/UPC" 4W 7dB	1
236001	Optical Splitter 1310/1550nm "FC/UPC" 8W 10.1dB	1
<b>SPLITTERS (PLC)</b>		
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
<b>ATTENUATORS</b>		
2364	Optical Attenuator 1310/1550nm "FC/UPC" 5dB	1
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
2365	Optical Attenuator 1310/1550nm "FC/UPC" 10dB	1
2366	Optical Attenuator 1310/1550nm "FC/UPC" 15dB	1
<b>MULTIPLEXERS (WDM)</b>		
234740	WDM Module Optical Multiplexer/Demultiplexer 1i/2o "SC/APC": GPON+RF: Data (1310/1490nm) - TV (1550nm)	1
<b>PATCH BOXES</b>		
231502	F.O. Patch/Splitting Box 2 to 4 Outs ("SC/APC" Female - Female adapters included)	1
231520	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 15m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231521	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 25m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231522	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 40m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231523	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 55m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231524	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 70m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231525	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 85m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231526	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 100m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231530	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 15m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231531	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 25m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231532	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 40m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231533	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 55m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231534	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 70m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231535	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 85m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
231536	F.O. Patch Box 4 Outs: 4 Pre-terminated Fca Fibres of 100m on one end with dispenser box ("SC/APC" Female - Female adapters included)	1
★ 231540	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 15m on one end ("SC/APC" Female - Female adapters included)	1
★ 231541	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 25m on one end ("SC/APC" Female - Female adapters included)	1
★ 231542	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 40m on one end ("SC/APC" Female - Female adapters included)	1
★ 231543	F.O. Patch Box 2 to 4 Outs: 2 Pre-terminated Dca Fibres of 55m on one end ("SC/APC" Female - Female adapters included)	1
<b>OUTLETS/KEYSTONES</b>		
233230	Keystone Module for F.O. Adapter "SC / APC" Female, Plastic Box	25
233231	F.O. Outlet: Keystone Module + Adapter "SC / APC" Female with Internal Shutter, Plastic Box	20
★ 233232	F.O. Rosette + Simplex Adaptern "SC/APC" Female with Internal Shutter	5
233240	F.O. Outlet Kit:Keystone Module + Adapter "SC / APC" Female with Internal Shutter + Patch Cord Single-mode Pre-terminated LSFH Dca 10m	1
233241	F.O. Outlet Kit:Keystone Module + Adapter "SC / APC" Female with Internal Shutter + Patch Cord Single-mode Pre-terminated LSFH Dca 15m	1



▲ 2364



▲ 234650



▲ 234740



▲ 23152x / 23153x








































▲ 231540



▲ 233230



▲ 233231

Ref.	Description		
<b>CABLES AND PATCH-CORDS</b>			
<b>CATEGORY 7</b>			
<b>Copper (Cu)</b>			
219101	Data Cable DK7000 S/FTP Cat 7 Cca Cu 23AWG LSFH Ø 7,4mm White		305
<b>CATEGORY 6A</b>			
<b>Copper (Cu)</b>			
219302	Data Cable DK6000A U/FTP Cat 6A Cca Cu 23AWG LSFH Ø 6,9mm White		500
★ 219312	Data Cable DK6000A U/UTP Cat 6A Dca Cu 23AWG LSFH Ø 7,3mm Violet		500
★ 219322	Data Cable DK6000A F/UTP Cat 6A Dca Cu 23AWG LSFH Ø 7,3mm Violet		500
<b>CATEGORY 6</b>			
<b>Copper (Cu)</b>			
212101	Data Cable DK6000 F/UTP Cat 6 Dca Cu 23AWG LSFH Ø 7,2mm Violet		500
212201	Data Cable DK6000 U/UTP Cat 6 Fca Cu 23AWG PE Ø 6,2mm White		305
2123	Data Cable DK6000 U/UTP Cat 6 Dca Cu 23AWG LSFH Ø 6,2mm Violet		305
212302	Data Cable DK6000 U/UTP Cat 6 Dca Cu 23AWG LSFH Ø 6,2mm Violet		1000
212305	Data Cable DK6000 U/UTP Cat 6 Dca Cu 23AWG LSFH Ø 6,2mm White		500
212310	Data Cable DK6000 U/UTP Cat 6 Dca Cu 24AWG LSFH Ø 6,0mm Violet		305
<b>CATEGORY 5E</b>			
<b>Copper (Cu)</b>			
219502	Data Cable DK5000E F/UTP Cat 5E Eca Cu 24AWG LSFH Ø 6,3mm Grey		305
219602	Data Cable DK5000E U/UTP Cat 5E Eca Cu 24AWG LSFH Ø 5,5mm Grey		305
219701	Data Cable DK5000E U/UTP Cat 5E Fca Cu 24AWG PE Ø 5,5mm Black		305
<b>PATCH-CORDS</b>			
<b>Category 6A</b>			
209102	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 1m Grey (Bag B0)		1
209103	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 2m Grey (Bag B0)		1
209104	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 3m Grey (Bag B0)		1
209105	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 5m Grey (Bag B0)		1
★ 209112	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 1m Grey		10
★ 209113	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 2m Grey		10
★ 209114	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 3m Grey		10
★ 209115	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 5m Grey		10
<b>Category 6</b>			
209001	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 0,5m White (Bag B0)		1
209002	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 1m White (Bag B0)		1
209003	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 2m White (Bag B0)		1
209004	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 3m White (Bag B0)		1
209005	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 5m White (Bag B0)		1
209011	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 0,5m White		10
209012	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 1m White		10
209013	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 2m White		10
209014	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 3m White		10
209015	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 5m White		10
209016	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 7m White		10
209017	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 10m White		10
209018	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 20m White		10
★ 209301	Patch-cord RJ45 U/UTP Cat 6 Cu LSFH 0,3m Violet		1
<b>ACCESSORIES</b>			
200101	Velcro Tape for Cables 8m, Width: 15mm, Black (2 units)		1
200102	Velcro Flange for Cables, Width: 15mm, Black (10 units)		1



▲ 219101



▲ 219302



▲ 212101



▲ 2123



▲ 219502



▲ 209105



▲ 209018



▲ 209301

Ref.	Description	
<b>CONNECTORS</b>		
<b>CATEGORY 6A</b>		
209921	Data Connector RJ45 UTP Cat 6A Female. Wing-nut assembly type, Plastic Box	10
209923	Data Connector RJ45 FTP Cat 6A Female. Grip assembly type, Plastic Box	10
★ 209924	Data Connector RJ45 FTP Cat 6A Male with Blue Protective Sleeve	1/25
<b>CATEGORY 6</b>		
209901	Data Connector RJ45 UTP Cat 6 Female 90°/180°. Assembly with/without Tool, Plastic Box	15
209902	Data Connector RJ45 UTP Cat 6 Male, Plastic Box	50
209903	Data Connector RJ45 FTP Cat 6 Female. Grip assembly type, Plastic Box	10
209904	Data Connector RJ45 FTP Cat 6 Male, Plastic Box	50
209961	Data Connector RJ45 UTP Cat 6 Male with White Protective Sleeve, Plastic Box	25
209962	Data Connector RJ45 UTP Cat 6 Male with Grey Protective Sleeve, Plastic Box	25
<b>KITS</b>		
209401	Kit – Carrying case which includes: 50xRJ45 UTP Cat 6 Male connectors (ref. 209902), 15xRJ45 UTP Cat 6 Female connectors (ref. 209901) and 1xCrimping tool (ref. 209801)	1

Ref.	Description	
<b>TOOLS</b>		
209801	Crimping Tool for RJ45/RJ11/RJ12 and 4P4C/4P2C Male Connectors	1
209811	Termination Tool for RJ45 Cat 6 Female Connectors	1
2145	Professional Cable Stripper for Coaxial Cable and Data Cable	10
2162	Cable Stripper for Coaxial Cable and Data Cable (Bag B2)	1
2174	Professional Tool for Data Cable Mounting	1

Ref.	Description	
<b>DATA DISTRIBUTION</b>		
<b>PATCH BOXES</b>		
★ 768110	Ethernet Switch L2, Unmanaged: 5x 10/100/1000 Mbps	1
768111	Ethernet Switch L2, Unmanaged: 8x 10/100/1000 Mbps	1



▲ 768110



▲ 209811

▲ 209901



A00614

Comparative video of a connectorization with and without a mounting tool.



▲ 209924



▲ 209904



▲ 209902



▲ 209401

References		219101	219302	219312	219322	212101	2123 212302 212305	212310	212201	219502	219602	219701
Type		S/FTP	U/FTP	U/UTP	F/UTP	F/UTP	U/UTP	U/UTP	U/UTP	F/UTP	U/UTP	U/UTP
Category		7	6A	6A	6A	6	6	6	6	5E	5E	5E
Euroclass		Cca	Cca	Dca	Dca	Dca	Dca	Dca	Fca	Eca	Eca	Fca
Conductor	Ø mm	0.55	0.55	0.55	0.55	0.55	0.55	0.51	0.55	0.51	0.50	0.50
	Material	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Electrolytic Cu
Conductor Type	AWG	23	23	23	23	23	23	24	23	24	24	24
Conductor isolation	Ø mm	1.30	1.30	1.10	1.14	1.14	1.02	0.92	0.95	0.95	0.95	0.95
	Material	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE
Filler	Crucifix	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Shielding foil	Material	A	A	No	A	A	No	No	No	A	No	No
Outer shielding braid	Material	CuSn	No	No	No	No	No	No	No	No	No	No
Ground cable	Ø mm	No	0,4	No	0,4	No	No	No	No	0,4	No	No
	Material	No	CuSn	No	CuSn	No	No	No	No	CSS	No	No
Outer sheath	Ø mm	7.40	6.90	7.30	7.30	7.20	6.20	6.00	6.20	6.30	5.50	5.50
	Material	LSFH	LSFH	LSFH	LSFH	LSFH	LSFH	LSFH	PE	LSFH	LSFH	PE
	Thickness (mm)	0.70	0.70	0.50	0.50	0.60	0.50	0.52	0.55	0.67	0.60	0.60
Rip cord		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spark test	VAC	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Nominal impedance	Ohm	100	100	100	100	100	100	100	100	100	100	100
Max. conductor resistance	Ohm/Km	93.80	93.80	93.80	93.80	117.00	117.00	117.00	117.00	117.00	117.00	117.00
Nominal speed	%	79	79	72	72	72	72	72	72	69	69	69

**Over Lapped Foil composition Environment**

A Aluminium + Polyester

**Other abbreviations**

Cu Copper

CuSn Tinned copper

CCS Copper Clad Steel



Ref.	Description	
<b>19" RACKS</b>		
<b>RACKS</b>		
<b>600x400mm</b>		
533117	19" Rack Cabinet 17RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x870x400mm. Wall/ Ground Mount (2x1RU cable panels included)	1
<b>600x450mm</b>		
533105	19" Rack Cabinet 6RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x370x450mm. Wall/ Ground Mount (Disassembled)	1
533106	19" Rack Cabinet 6RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x370x450mm. Wall/ Ground Mount	1
533107	19" Rack Cabinet 8RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x460x450mm. Wall/ Ground Mount (Disassembled)	1
533108	19" Rack Cabinet 8RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x460x450mm. Wall/ Ground Mount	1
533112	19" Rack Cabinet 13RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x682x450mm. Wall/ Ground Mount (Disassembled)	1
533113	19" Rack Cabinet 13RU (+2RU extra). Glazed Door and Accesible from the side. Dimensions: 600x682x450mm. Wall/ Ground Mount	1
<b>600x600mm</b>		
★ 533118	19" Rack Cabinet 18RU. Glazed Door and Accesible from the side. Dimensions: 600x942x600mm. Ground Mount	1
★ 533122	19" Rack Cabinet 22RU. Glazed Door and Accesible from the side. Dimensions: 600x1120x600mm. Ground Mount	1
★ 533127	19" Rack Cabinet 27RU. Glazed Door and Accesible from the side. Dimensions: 600x1342x600mm. Ground Mount	1
★ 533132	19" Rack Cabinet 32RU. Glazed Door and Accesible from the side. Dimensions: 600x1564x600mm. Ground Mount	1
★ 533137	19" Rack Cabinet 37RU. Glazed Door and Accesible from the side. Dimensions: 600x1787x600mm. Ground Mount	1
<b>600x800mm</b>		
★ 533134	19" Rack Cabinet 32RU. Glazed Door and Accesible from the side. Dimensions: 600x1570x800mm. Ground Mount	1
★ 533139	19" Rack Cabinet 37RU. Glazed Door and Accesible from the side. Dimensions: 600x1790x800mm. Ground Mount	1
533142	19" Rack Cabinet 42RU. Glazed Door and Accesible from the side. Dimensions: 600x2010x800mm. Ground Mount	1
<b>800x800mm</b>		
★ 533144	19" Rack Cabinet 42RU. Glazed Door and Accesible from the side. Dimensions: 800x2010x800mm. Ground Mount	1



▲ 533113



▲ 533122



▲ 533144



▲ 533105

▲ 533107

▲ 533112



In case of references that are supplied disassembled

Ref.	Description	
<b>19" RACKS</b>		
<b>PANELS AND TRAYS</b>		
533150	Panel for Rack 19" 1RU, Up to 24 "F" connectors	1
533151	Panel for Rack 19" 1RU, Up to 24 "RJ45" connectors	1
533152	Splice Box for Rack 19" 1RU, Up to 24 "SC" Simplex or "LC" Duplex connectors (Depth 236mm)	1
533153	Panel for Rack 19" 1RU, Up to 2x7 "F" connectors (suitable for T.OX modules)	1
533157	Splice Box for Rack 19" 2RU, Up to 48 "SC" Simplex or "LC" Duplex connectors (Depth 236mm)	1
533158	Cable Management Panel for Rack 19" 1RU, 5 Rings of 80mm	1
533159	Cable Management Panel for Rack 19" 1RU, 1 Hole with Brush Strip	1
★ 533160	Cable Management Panel for Rack 19" 1RU, Front Cover	1
533162	Blank Panel for Rack 19" 2RU	1
★ 533180	Patch Panel for Rack 19" 1RU, With 24 "RJ45" Cat 6 UTP connectors	1
★ 533181	Patch Panel for Rack 19" 1RU, With 24 "RJ45" Cat 6A FTP connectors	1
★ 533182	Splice Box for Rack 19" 1RU, Up to 24 "SC" Duplex or "LC" Quad connectors (Depth 236mm)	1
★ 533183	Panel for Rack 19" 1RU, Up to 24 "SC" Duplex or "LC" Quad connectors	1
★ 533185	Tray for Rack 19" 2RU (Depth 315mm)	1
<b>VENTILATION</b>		
★ 533005	Thermostat with NO Contact 0...60°C for Rack 19"	1
★ 533174	Individual Top Fan for Rack 19", 195m3/h	1
★ 533175	2 Fan Top Tray for Rack 19" and 600mm depth, 390m3/h	1
★ 533176	4 Fan Top Tray for Rack 19" and 800mm depth, 780m3/h	1
<b>ACCESSORIES</b>		
533170	Screw Kit for Rack 19": Screw with washer and nut (50 units)	1
★ 533171	Kit for Rack 19": 4 Wheels and Screws	1
★ 533172	Rubber cap for splice box - "SC" Simplex or "LC" Duplex	24



▲ 533150



▲ 533158



▲ 533159



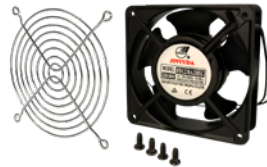
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▲ 533180



▲ 533005



▲ 533174



▲ 533175



▲ 533176

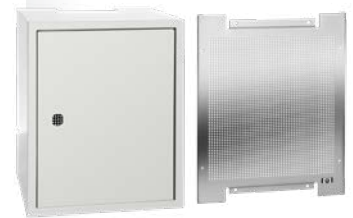


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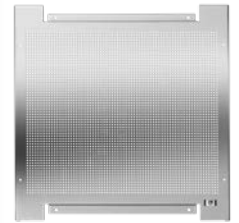


▲ 533157

Ref.	Description	
<b>HEADEND CABINETS</b>		
<b>CABINETS</b>		
5749	Outdoor Lockable Cabinet (IP66 Standard), Dimensions: 600x380x210mm	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
<b>PERFORATED PLATES</b>		
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



▲ 589401

Ref.	Description	
<b>ENCLOSURES</b>		
<b>ENCLOSURES</b>		
231301	Splitting Terminal Enclosure for F.O., Indoor (Up to 16 Fibres)	1
231302	Splitting Terminal Enclosure for F.O., Indoor (Up to 24 Fibres)	1
231310	Splitting Terminal Enclosure for F.O., Indoor (Up to 8 Fibres)	1
233002	Main Terminal Enclosure for F.O., Indoor (Up to 48 "SC" Simplex or "LC" Duplex connectors)	1
233003	Stackable Main Enclosure for F.O., Indoor (Up to 48 "SC" Simplex or "LC" Duplex connectors)	1
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 with Flexible Front Frame	1
546702	Data/Coaxial/Fibre Network Terminal Enclosure	1
<b>ACCESSORIES</b>		
★ 233013	F.O. Organizer for enclosure REF.233003	1
546620	Coaxial Adapter Support "F" Female - "F" Female, for Panels (Refs. 546602 and 546610)	1



▲ 231302



▲ 231310



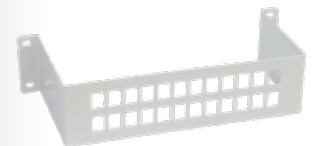
▲ 233003

## HDMI DISTRIBUTION

Ref.	Description		
<b>CABLES</b>			
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



▲ 494501



▼ 546610



▼ 546702

Ref.	Description	
<b>NETWORK ELECTRONICS</b>		
<b>ROUTERS</b>		
769110	Network Manager: Router and Firewall, 4x Gb Ethernet	1
769111	Network Manager: Router and Firewall, 6x Gb Ethernet +2SFP	1
769121	Router 12x Gb Ethernet + 4x SFP, 36 core 19" Rack Mount, 1U	1
769122	Router 13x Gb Ethernet, 4 core, 19" Rack Mount, 1U	1
<b>SWITCHES</b>		
<b>Managed</b>		
769140	Ethernet Switch L2+: 8x Gb Ethernet (PoE+, 130W) + 2x SFP (1 Gbps)	1
769141	Ethernet Switch L2+: 24x Gb Ethernet (PoE+, 370W) + 4x SFP (1 Gbps)	1
769142	Ethernet Switch L2+: 8x Gb Ethernet + 24x SFP (1 Gbps) + 4x SFP+ (10 Gbps)	1
769143	Ethernet Switch L3: 32x Gb Ethernet + 8x SFP+ (10Gbps)	1
★ 769144	Ethernet Switch L2+: 24x Gb Ethernet + 4x SFP (1 Gbps)	1
★ 769145	Ethernet Switch L2+: 48x Gb Ethernet + 6x SFP+ (10 Gbps)	1
<b>Unmanaged</b>		
★ 768110	Ethernet Switch L2, Unmanaged: 5x 10/100/1000 Mbps	1
768111	Ethernet Switch L2, Unmanaged: 8x 10/100/1000 Mbps	1
<b>MEDIA CONVERTERS (SFP)</b>		
769210	SFP Module 1GbE for switches 76914x and network manager 769111 2 SMF "LC/UPC", 1310nm	1
769212	Kit: 2 SFP Modules 1GbE for switches 76914x and network manager 769111, SMF "LC/UPC", 1310+1490nm	1

Ref.	Description	
<b>WIFI ACCESS POINTS</b>		
<b>WAVEDATA SERIES</b>		
<b>WaveData Access Points</b>		
769001	Wireless Access Point WaveData: 1x Ethernet WAN (PoE), 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac (option Low Power WiFi)	1
769002	Wireless Access Point WaveData: 1x F.O. SFP, 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac (option Low Power WiFi)	1
★ 769011	Outdoor Wireless Access Point WaveData: 1x Ethernet WAN (PoE), 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac	1
<b>Management</b>		
769030	WaveBox device: Managing and monitoring the WaveData network	1
769112	Network Manager: Hotspot, 4x Gb Ethernet	1
<b>Accessories</b>		
640301	Wall Mount for CoaxData/CoaxBox/WaveBox	1



▲ 769110



▲ 769142



▲ 769143



▲ 768110



▲ 768111



▲ 769001



▲ 769030



▲ 769112

Ref.	Description	
<b>OPTICAL FIBRE</b>		
<b>FUSION KITS</b>		
<b>Electric arc splice</b>		
232105	F.O Kit: Arc Fusion Splicer + Stripper + Cleaver + Power adapter + Spare set of electrodes + Tweezers + Carrying Case	1
<b>Mechanical splice</b>		
2341	F.O Kit: Connector & Mechanical Splice + Stripper (Ref. 2324) + Cleaver (Ref. 232301) + Cleaning Tools	1
<b>SIGNAL GENERATORS</b>		
2340	OPS3L Triple Light Source (1310, 1490 & 1550nm)	1
<b>TOOLS</b>		
2322	Fibre Mechanical Splicer	1
232301	Cleaver of Fibre Optics	1
232310	Kevlar® Scissors for Optical Fibres	1
2324	Precision Stripper for Optical Fibres	1
2325	Stripper for Multi-fibre Cables	1
<b>ACCESSORIES</b>		
2327	Splicing Protection Sleeve 60mm for FO fusion	200
232701	Splicing Protection Sleeve 43mm for FO fusion	200
232710	F.O. Cleaning Kit: 50 isopropyl alcohol Wipes + 25 Sticks	1
2328	Fibre Mechanical Splices	10
2329	Connectors of Fibre Optics "SC/APC" (with mounting tool)	10
232910	Cleaner for Fibre Optic Connectors	1



▲ 2341



▲ 2340



▲ 2322



▲ 232301



▲ 232910



▲ 2325



▲ 2329



▲ 2324



▲ 232310



▲ 232105



Ref.	Description	
<b>FIELD STRENGTH METERS</b>		
<b>H30CRYSTAL</b>		
<b>Meters</b>		
★ 593601	H30Crystal: DVB-S/S2 + DVB-T, F.O. (Smartphone Armband included)	1
★ 593602	H30Crystal: DVB-S/S2 + DVB-T/T2, F.O. (Smartphone Armband included)	1
★ 593603	H30Crystal: DVB-S/S2 + DVB-C, F.O. (Smartphone Armband included)	1
★ 593604	H30Crystal: DVB-S/S2 + DVB-T/T2 + DVB-C, F.O. (Smartphone Armband included)	1
★ 593621	H30Crystal: DVB-S/S2 + DVB-T, Selective F.O. (Smartphone Armband included)	1
★ 593622	H30Crystal: DVB-S/S2 + DVB-T/T2, Selective F.O. (Smartphone Armband included)	1
★ 593624	H30Crystal: DVB-S/S2 + DVB-T/T2 + DVB-C, Selective F.O. (Smartphone Armband included)	1
<b>Options</b>		
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
593250	Option WiFi Analyzer (2,4/5GHz)	1
593251	Option IPTV Analyzer	1
593252	Option HEVC Display	1
<b>Accessories</b>		
593201	Protective Sleeve	1
593202	Replacement Battery	1
593203	Power Supply Unit 12V - 2A All Plugs	1
593205	Ports Protector	1
593239	Carrying Case	1
994101	Car Lighter-type 12V Charger adapter Cable, 1.5m	1/10
<b>MOSAIQ6</b>		
<b>Meters</b>		
596101	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, F.O. (Carrying Bag included)	1
596102	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, F.O. (Carrying Case included)	1
596105	MOSAIQ6 Advance: DVB-T/T2/S/S2/SX/C, CI, F.O., WiFi Analyzer, Analogue Measures, DAB/DAB+, 4K UHD (Carrying Bag included)	1
596111	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, Selective F.O. Interface (CWDM Filter) (Carrying Bag included)	1
596112	MOSAIQ6: DVB-T/T2 + DVB-S/S2/SX + DVB-C, CI, Selective F.O. Interface (Carrying Case included)	1
596115	MOSAIQ6 Advance: DVB-T/T2/S/S2/SX/C, CI, Selective F.O. Interface (CWDM Filter), WiFi Analyzer, Analogue Measures, DAB/DAB+, 4K UHD (Carrying Bag included)	1
<b>Options</b>		
596201	Option GPS Drive Test	1
596202	Option WiFi Analyzer (2,4/5GHz)	1
596203	Option Analogue Measures	1
596204	Option DAB/DAB+	1
596205	Option 4K - Ultra High Definition (UHD)	1
<b>Accessories</b>		
596210	Stand-alone, field replaceable battery	1
596211	Carrying Bag	1
596212	Adapter "N" Male - "F" Female	1
596213	Screen Protector	1
596214	Carrying Case	1



▲ 593601



▲ 593239



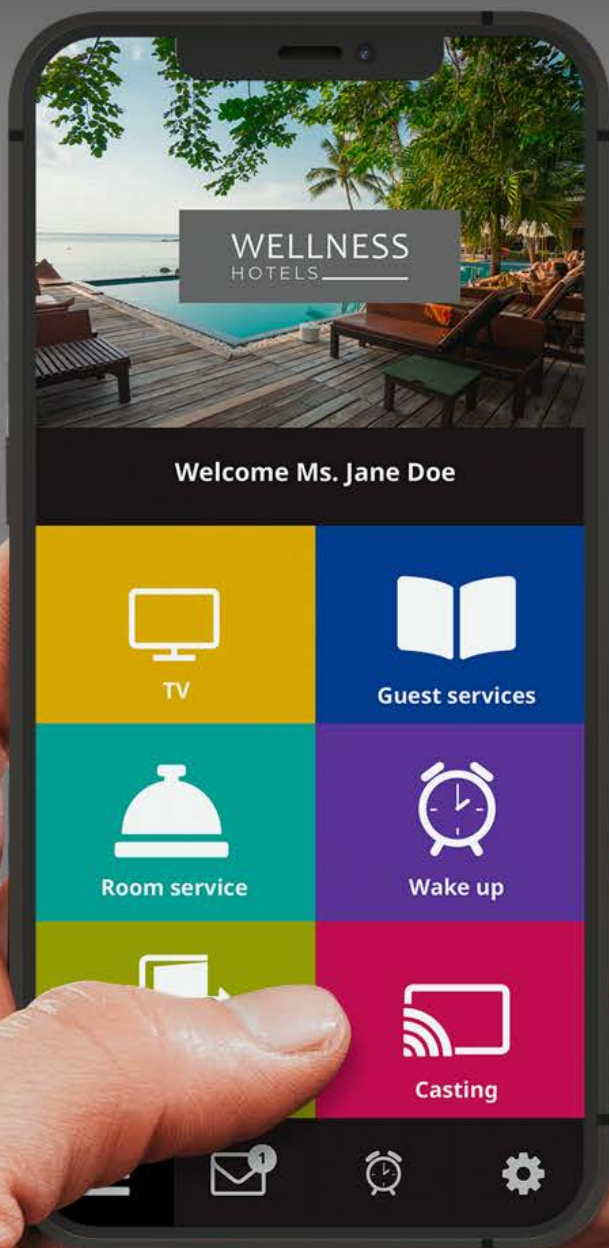
▲ 596105



▲ 596214

# HOSPITALITY

Efficient and ubiquitous internet access in a high capability multiservice network infrastructure.



**HOSPITALITY**  
**FIBREDATA SERIES (GPON)**

Ref.	Description	
<b>GPON HEADENDS</b>		
<b>OLT MODULES</b>		
769401	OLT512: 8x PON + 4x Gb Ethernet + 4x 10GbEthernet/Gb Ethernet (Up to 512 users) AC/DC Adapter included	1
769420	Modular OLT3072, for 3 16x PON cards and 2 2x 10Gb switch cards, (Up to 3072 users) AC/DC Adapter included	1
769421	2x10Gb Switch Card (for OLT3072, Ref. 769420)	1
769422	16xPON Card (for OLT3072, Ref. 769420)	1
<b>POWER SUPPLY UNIT</b>		
769601	Double Power Supply Unit -48Vdc. 19" Rack Mount, 1RU (for OLT)	1
<b>MEDIA CONVERTERS (SFP)</b>		
769410	SFP Module GPON B+ 1GbE for OLT modules 7694xx, 1 Fibre "SC/UPC", 1490nm	1
769411	SFP Module 1GbE for OLT modules 7694xx, "RJ45"	1
769412	SFP+ Module 10GbE for OLT modules 7694xx and switches 76914x, 2 Single-mode Fibres "LC/UPC"	1
769413	SFP Module GPON C+ 1GbE for OLT modules 7694xx, 1 Fibre "SC/UPC"	1
Ref.	Description	
<b>GPON MONITORING</b>		
769130	Server + Monitoring Software Tool + Licences	1
769131	Monitoring Software Tool + Licences	1
769132	Lite Server + Monitoring Software Tool + Licences (up to 128 devices)	1



**FIBREDATA SOLUTIONS**

TELEVÉS COST-EFFECTIVE  
**QUAD PLAY SOLUTIONS OVER  
OPTICAL FIBRE**



**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.



**HOSPITALITY**  
**FIBREDATA SERIES (GPON)**

Ref.	Description	
<b>VIDEO OVERLAY HEADENDS</b>		
<b>OPTICAL TRANSMITTERS</b>		
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
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
<b>AMPLIFIERS / MULTIPLEXERS</b>		
234220	T.OX Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology)	1
234221	T.OX Optical Amplifier / Multiplexer "SC/APC" 19dBm (EDFA Tecnology) 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
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
769611	Optical Amplifier / Multiplexer "SC/APC" 20dBm (YEDFA Technology) 33i: 32x1310/1490nm - 1x1550nm, 32o: 32x1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 2RU	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
769620	Optical Amplifier 1i/1o: 1550nm "SC/APC" 20dBm (EDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769622	Optical Amplifier 1i/8o: 1550nm "SC/APC" 10dBm (EDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769623	Optical Amplifier 1i/8o: 1550nm "SC/APC" 20dBm (YEDFA Technology) + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769630	Optical Amplifier / Multiplexer "SC/APC" 20dBm (EDFA Technology) 2i:1x1310/1490nm - 1x1550nm, 1o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769631	Optical Amplifier / Multiplexer "SC/APC" 14dBm (EDFA Technology) 5i:4x1310/1490nm - 1x1550nm, 4o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
769632	Optical Amplifier / Multiplexer "SC/APC" 10dBm (EDFA Technology) 9i:8x1310/1490nm - 1x1550nm, 8o:1310/1490/1550nm + Double Power Supply Unit. 19" Rack Mount, 1RU	1
<b>POWER SUPPLY UNIT</b>		
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
<b>OPTICAL SPLITTERS</b>		
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



▲ 234305



▲ 769801



▲ 234228



▲ 769612



▲ 769622



▲ 769630

**T.OX: FIBRE OPTIC AMPLIFIERS**



**Why use them?**

- Amplifiers optimised for **SKY Q** Applications
- Range of 1, 8 and 32 outputs
- Capability to feed thousands of points
- T.OX 19" Rack Mount which optimise space and it allows an easy and quick install
- Highest performance with 1550nm Technology
- High output power up to 20dBm
- Peace of mind in your Fibre IRS installations

➤ **1-Output EDFA Optical Amplifier**  
Ref.234220  
-10 to + 10dBm range  
Based on EDFA (Erbium Doped Fibre)

➤ **1-Output YEDFA Optical Amplifier**  
Ref.234221  
-10 to + 10dBm range  
Based on YEDFA (Erbium and Ytterbium Doped Fibre)  
Equipped with WDM for the multiplexing of RF Overlay with GPON signals



▲ 2337



▲ 234401

**HOSPITALITY**  
**FIBREDATA SERIES (GPON)**

Ref.	Description	
<b>SUBSCRIBER EQUIPMENT</b>		
<b>ONT/ONU</b>		
769501	Office ONT Module: 4x Gb Ethernet + 2x FXS + 2x USB, WLAN b/g/n	1
769502	Home ONT Module: 4x Gb Ethernet + 2x FXS + 2x USB, WLAN b/g/n, RF Overlay	1
769507	Basic ONU Module: 1x Gb Ethernet	1
769509	Room ONT Module: 4x Gb Ethernet / PoE (30W) + 2x FXS + 2x USB, RF Overlay	1
769514	Home AC ONT Module: 4x Gb Ethernet + 2x FXS + 1x USB, WLAN b/g/n/ac, RF Overlay	1
769520	SPF ONU Module: GPON	1
<b>OPTICAL MICRO-RECEIVER</b>		
231111	Domestic Optical Receiver 1550nm "SC/APC" with Amplifier 47...1006MHz, OLC Technology	1
237330	Optical Receiver / Demultiplexer "SC/APC" [-5...+2dBm] 1i: 1310/1490/1550nm(GPON/TV), 2o: 1310/1490nm(GPON) - RF[1TV: Terr./Sat] Vo 58/49dBµV	1



▲ 769520



▲ 231111



▲ 237330



**Technical Characteristics: ONT+ONU**



References	769501	769502	769514	769509	769507
Models	OFFICE	HOME		ROOM	BASIC
RF Overlay	✗	✓	✓	✓	✗
WiFi (802.11 b/g/n) (2x2) 2.4	✓	✓	✓ <sup>(1)</sup>	✗	✗
WiFi (802.11 b/g/n/ac) (4x4) 2.4/5	✗	✗	✓	✗	✗
USB	2	2	1	2	✗
FXS Ports	2	2	2	2	✗
ETH 10/100/1000BASE-T Ports	4	4	4	4	1
PoE	✗	✗	✗	4	✗
NAT/NAPT	✓	✓	✓	✓	✗
Firewall	✓	✓	✓	✓	✗
VPN pass-through	✓	✓	✓	✓	✗
PPPoE Terminal	✓	✓	✓	✓	✗
OMCI	✓	✓	✓	✓	✗
TR-069	✓	✓	✓	✓	✗
CLI	✓	✓	✓	✓	✗
WebGUI	✓	✓	✓	✓	✗

The Ref.769514 includes: <sup>(1)</sup> WiFi (802.11 b/g/n) (3x3) 2.4

For more information about optical fibre cabling and distribution elements, see the DataCom section.



Ref.	Description	
<b>NETWORK ELECTRONICS</b>		
<b>ROUTERS</b>		
769110	Network Manager: Router and Firewall, 4x Gb Ethernet	1
769111	Network Manager: Router and Firewall, 6x Gb Ethernet +2SFP	1
769120	Router 12x Gb Ethernet + Configuration of services 19" Rack Mount, 1U	1
769121	Router 12x Gb Ethernet + 4x SFP, 36 core 19" Rack Mount, 1U	1
769122	Router 13x Gb Ethernet, 4 core, 19" Rack Mount, 1U	1
<b>SWITCHES</b>		
<b>Managed</b>		
769140	Ethernet Switch L2+: 8x Gb Ethernet (PoE+, 130W) + 2x SFP (1 Gbps)	1
769141	Ethernet Switch L2+: 24x Gb Ethernet (PoE+, 370W) + 4x SFP (1 Gbps)	1
769142	Ethernet Switch L2+: 8x Gb Ethernet + 24x SFP (1 Gbps) + 4x SFP+ (10 Gbps)	1
769143	Ethernet Switch L3: 32x Gb Ethernet + 8x SFP+ (10Gbps)	1
★ 769144	Ethernet Switch L2+: 24x Gb Ethernet + 4x SFP (1 Gbps)	1
★ 769145	Ethernet Switch L2+: 48x Gb Ethernet + 6x SFP+ (10 Gbps)	1
<b>Unmanaged</b>		
★ 768110	Ethernet Switch L2, Unmanaged: 5x 10/100/1000 Mbps	1
768111	Ethernet Switch L2, Unmanaged: 8x 10/100/1000 Mbps	1
<b>MEDIA CONVERTERS (SFP)</b>		
769210	SFP Module 1GbE for switches 76914x and network manager 769111 2 SMF "LC/UPC", 1310nm	1
769212	Kit: 2 SFP Modules 1GbE for switches 76914x and network manager 769111, SMF "LC/UPC", 1310+1490nm	1
★ 769214	SFP+ Module 10GbE for switches 76914x, 2 SMF "LC/UPC", 1310nm, 10km	1
769412	SFP+ Module 10GbE for OLT modules 7694xx and switches 76914x, 2 Single-mode Fibres "LC/UPC"	1
<b>MANAGEMENT</b>		
★ 768801	DataBox device: Managing and monitoring platform for WaveData, CoaxData and Networking devices	1
<b>WIFI ACCESS POINTS</b>		
<b>WAVEDATA SERIES</b>		
<b>WaveData Access Points</b>		
769001	Wireless Access Point WaveData: 1x Ethernet WAN (PoE), 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac (option Low Power WiFi)	1
769002	Wireless Access Point WaveData: 1x F.O. SFP, 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac (option Low Power WiFi)	1
★ 769011	Outdoor Wireless Access Point WaveData: 1x Ethernet WAN (PoE), 1x Ethernet LAN, 1x USB 3.0, WLAN b/g/n/ac	1
<b>Management</b>		
★ 768801	DataBox device: Managing and monitoring platform for WaveData, CoaxData and Networking devices	1
769030	WaveBox device: Managing and monitoring the WaveData network	1
769112	Network Manager: Hotspot, 4x Gb Ethernet	1
<b>Accessories</b>		
640301	Wall Mount for CoaxData/CoaxBox/WaveBox	1



**WIRELESS ACCESS POINT**

WaveData AP provides a high-performance wireless mobility solution for establishments with medium / high density.

The ref. 769002 includes a port for SFP modules, which allows to extend the switching functionality over fibre optic cables.

**DATA OVER CABLE SYSTEM**

Ref.	Description	
<b>COAXDATA SERIES (HOMEPLUG AV)</b>		
<b>GIGABIT 1GBPS</b>		
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) Conector & 2 "F" Connectors	1
769203	Transmitter/Receiver 1Gbps-HDTV Data over Coaxial, 1 Ethernet Connector & 2 "F" Connectors	1
769301	Transmitter/Receiver Router 1Gbps-HDTV Data over Coaxial, PLC and WiFi (Low Power WiFi option), 3 Ethernet Connectors & 2 "F" Connectors	1
<b>MANAGEMENT</b>		
769330	CoaxBox device: Managing and monitoring the CoaxData network	1
<b>ACCESSORIES</b>		
640301	Wall Mount for CoaxData/CoaxBox/WaveBox	1
769210	SFP Module 1GbE for switches 76914x and network manager 769111 2 SMF "LC/UPC", 1310nm	1
769212	Kit: 2 SFP Modules 1GbE for switches 76914x and network manager 769111, SMF "LC/UPC", 1310+1490nm	1
769220	Diplexer Filter 2i/1o "F": LPF[2...68MHz] - HPF[87...2150MHz]	1/10



▲ 769030



▲ 768801



▲ 769121



▲ 769301

Ref.	Description	
<b>IPTV HEADENDS</b>		
<b>T.OX SERIES</b>		
<b>Streamers</b>		
565701	T.OX Streamer DVB-T/T2-IP CI (Multicast/Unicast, SPTS) Multiplexer: 4 Channels (DVB-T/T2) : 32 IP Streams	1
565801	T.OX Streamer DVBS/S2-IP CI (Multicast/Unicast, SPTS) Multiplexer: 3 Transponders(2Sat) or 3 Transponders(1Sat+LoopThru) : 32 IP Streams	1
<b>Encoders</b>		
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
831816	Kit T.OX Corporate Channel: Nemesis DS Player + T.OX HDMI-IP Encoder (ref. 831815 + 563852)	1
<b>Auxiliary Equipment</b>		
216802	Kit: OTG USB - microUSB B Cable & WiFi Adapter. Utilities: Streamers T.OX WiFi Control	1
5301	19" Rack Frame 484mm 5RU (1 PSU + 7 T.OX Modules or 10 T12/T05 Modules)	1
5629	T.OX Switch-mode Power Supply Unit 120W 24V-5A	1
<b>COMPACT HE-21 IPTV HEADEND</b>		
<b>HE-21 Chassis</b>		
831010	4U Chassis	1
831011	4U Chassis with Redundant Power Supply	1
831012	1U Chassis	1
<b>Input Modules</b>		
831110	DVB-S/S2 Dual Input	1
831111	DVB-S/S2 Quad Input	1
831114	DVB-T/T2 Quad Input	1
831115	DVB-T/T2 Dual Input	1
831118	DVB-IP Input	1
831121	ATSC Quad Input	1
831122	HDMI Input QUAD	1
831123	DVB-S/S2/T/T2/C/ISDB-T Dual Input with Dual CI	1
831124	SDI Input QUAD	1
<b>Optional Items</b>		
831119	Corporate Channel License	1

**T.OX IP STREAMERS**



▲ 565801 ▲ 565701

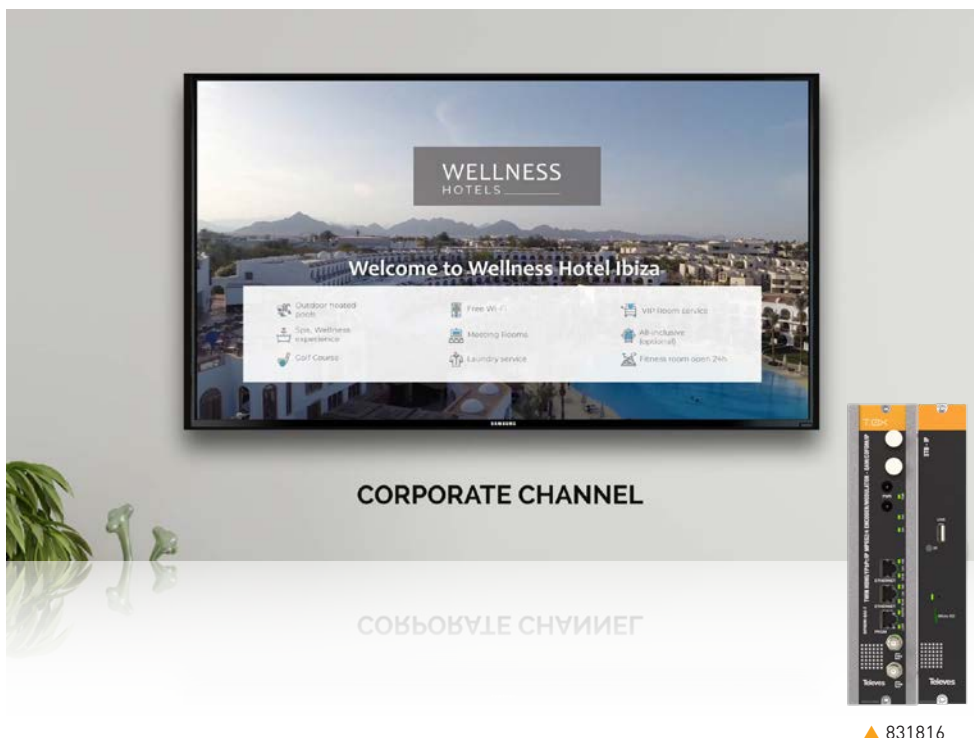
Streamers generating an IP encapsulated output from the multiplexing of the services available in:

- Up to 3 different TV SAT transponders: Ref. 5658xx.
- 4 different DVB-T or DVB-T2 muxes: Ref. 5657xx.

In addition, modules 565840/565740 has the option to re-encrypt the IP services decrypted by the CAM with a DRM Pro: Idiom solution (*Digital Rights Management*), for secure delivery of contents.



▲ 563852



**CORPORATE CHANNEL**

СОРЬОВАТЕ СНАИИЕГ

▲ 831816

# 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, Samsung and Philips 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 ArantiaCast (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.**

Ref.	Description	
<b>ITV HEADEND (INTERACTIVE TELEVISION)</b>		
<b>MIDDLEWARE</b>		
83031801	Arantia TV Middleware up to 50 Users	1
83032003	Arantia TV Middleware up to 100 Users	1
83032103	Arantia TV Middleware up to 499 Users	1
83032203	Arantia TV Middleware up to 750 Users	1
83032303	Arantia TV Middleware up to 1000 Users	1
83032403	Arantia TV Middleware from up to 2200 Users	1
83032503	Arantia TV Middleware Lite up to 1000 Users	1
<b>LICENCES</b>		
830319	Arantia TV Set-Top Box License	1
830510	Arantia TV Compatible Television License (LG, Samsung, Philips)	1
<b>VOD SERVERS</b>		
830311	VOD Server 20 Streams 1TB SAS	1
83031201	VOD Server 95 Streams 500GB (1.2TB) SAS	1
83031203	VOD Server 95 Streams 1TB (2.4TB) SAS	1
<b>NPVR SERVERS</b>		
★ 830401	nPVR Server 20 Streams 1TB SAS	1
★ 830402	nPVR Server 95 Streams 500GB (1.2TB) SAS	1
★ 830403	nPVR Server 95 Streams 1TB (2.4TB) SAS	1
<b>CONNECT MYDEVICE</b>		
100003	ArantiaTV Application - Connect My Device	1

\* Check compatible TV models.



▲ 83031801



▲ 83032003



▲ 830319



▲ 830311

## ARANTIA TV APPLICATION

**Connect My Device** is an advanced mobile application that the guest can use in order to connect to the room television through the hotel Wi-Fi network.

Available for iOS and Android, Arantia TV application allows an easy interactive television operation from your mobile device.



▲ 100003

Ref.	Description	
<b>ITV PERSONALIZATION</b>		
<b>PERSONALIZATION ITEMS AND ADDITIONAL OPTIONS</b>		
830110	Alarm Monitor Device	1
830501	Property Management System Integration License (server needed)	1
830502	Guest User Interface (GUI) personalization	1
830506	TV NO/NC Alarm System Integration	1
830508	Property Management System Integration HW Gateway	1
830509	Property Management System Integration Gateway - License for Room	1
980103	Arantia TV User Interface Customization (1 hour)	1
<b>ITV ROOM EQUIPMENT</b>		
<b>SET-TOP BOX</b>		
830108	Nemesis V2 Set-Top Box	1
830130	Nemesis V2 Kit: Set-Top Box + IR/RF Remote Control + Power Supply	1
<b>ACCESSORIES</b>		
830207	LG/Samsung Remote Control	1
830216	IR Universal (TV) and RF (STB Nemesis V2) Remote Control	1
830218	Power Supply Unit for Nemesis V2 Set-Top Box (All plugs)	1
830219	Nemesis V2 Set-Top Box TVI Extension - Samsung	1
830220	Nemesis V2 Set-Top Box TVI Extension - LG	1
830221	Wall Mount for Nemesis V2 Set-Top Box	1
<b>ITV ACCESSORIES</b>		
<b>RACKS AND ACCESSORIES</b>		
831301	19" Rack 27U (Mounted & Adjusted)	1
831302	19" Rack 37U (Mounted & Adjusted)	1
831303	19" Rack 42U (Mounted & Adjusted)	1
831304	19" Rack 22U (Mounted & Adjusted)	1
831311	Rack Rails for HE-21	1
831930	Set up and Adjustment for GPON headend (FibreData) in 19" Rack (Ref. 83130x)	1
<b>ROUTER AND UPS</b>		
831404	VPN Router	1
831701	Uninterruptible Power Supply (UPS)	1
<b>SWITCHES</b>		
831401	Ethernet Switch L3 IPTV: 24x Gb Ethernet + 4x SFP+ (10Gbps), more than 400 viewing points (ArantiaTV configuration included)	1
831402	Ethernet Switch L2 IPTV: 24x Fast Ethernet + 4x SFP (1Gbps)	1
831403	Ethernet Switch L2 IPTV: 48x Fast Ethernet + 4x SFP (1Gbps)	1
831406	Ethernet Switch L2+ IPTV: 24x Gb Ethernet + 4x SFP+ (10Gbps), up to 400 viewing points (ArantiaTV configuration included)	1
831426	Ethernet Switch L2+ IPTV: 24x Gb Ethernet + 4x SFP (1Gbps), up to 80 viewing points (ArantiaTV configuration included)	1
<b>TRANSCIVERS</b>		
831503	Transceiver for IPTV switches 8314xx, 1000SX, MMF (Multi-Mode Fibre) "LC"	1
831505	Transceiver for IPTV switches 8314xx, 1000T RJ-45	1
831506	Transceiver for IPTV switches 8314xx, 1000LX, SMF (Single-Mode Fibre) "LC"	1

**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 decoding capabilities.
- Remote management and monitoring.
- Accessories: Power supply 10W (5V/2A) and remote control (Bluetooth and IR).

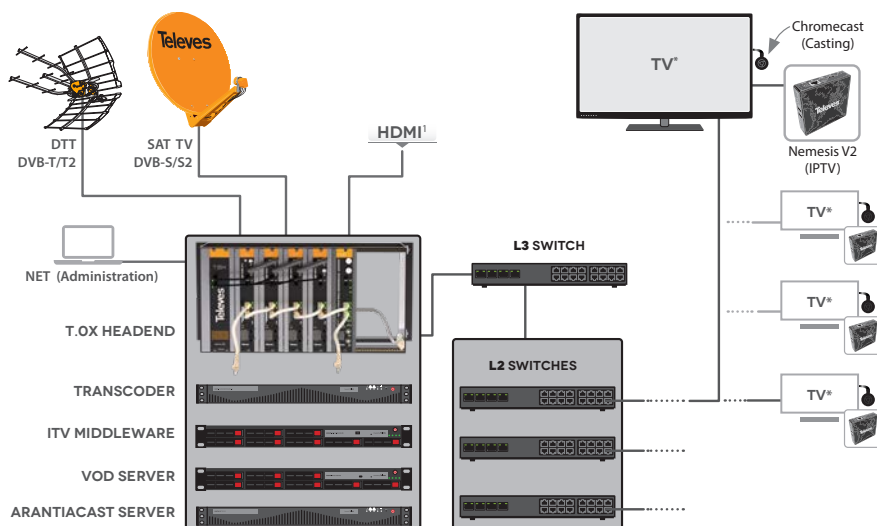


▲ 830130



▼ Rack 27U (Mounted and adjusted)

**Arantia TV: Main System Components**



This diagram includes the main System Architecture components.

Input systems such as the T.OX, MDW Server, Multiscreen Transcoder, the IP distribution network and the end user devices like the Nemesis V2 STB's, TV's and players for IPTV reception, digital signage with Arantia DS or advanced interactive services with Arantia TV.

T.OX streamers support DRM Pro:Idiom.

1. The HDMI input allows the inclusion in the system of audio and video streams from HDMI sources such as encoders, PCs, and others.

Compatible TVs:  
 LG SAMSUNG PHILIPS





**Over 2000 apps available**

([chromecast.com/apps](http://chromecast.com/apps))

ArantiaCast solution powered by Chromecast

Android, iOS and ChromeOS compatible



**STREAMING EXPERIENCE**

**The complete contents of the mobile devices on the Hotel TV set.**

**ArantiaCast** is a casting system that allows each user in a multiuser environment, such as hotels, to have its own exclusive associated device. Without any login or password, and with automatic disconnection when the guest checks out through the hotel's PMS.

- The system allows the advanced remote monitoring of the installed devices.
- The Chromecast installation on the television sets is carried out in an unobtrusive and safe way.
- Streaming will only be allowed on the television set of the guest's own room.
- Disconnection from the system takes place on check.
- Content streaming on the hotel's television set, just like home.
- No login, password or personal information from the guest required.
- Compatible with any television set equipped with an HDMI connector.
- Over 2,000 applications available for Casting (Netflix, HBO, Youtube, etc.)
- Multiple mobile devices can be connected to the same room's Chromecast.

Ref.	Description	
<b>ARANTIACAST</b>		
<b>ARANTIACAST SERVER</b>		
831410	ArantiaCast Server	1
<b>CHROMECAST DEVICE</b>		
831411	Arantiacast Kit: Pre-configured Chromecast + antitheft box and cable	1
831412	License for ChromeCast device	1
831414	ArantiaCast Server SW Warranty Extension (annual per Chromecast device)	1





▲ 831410





▲ 831411


**Stream** your favourite content from your personal device straight to the TV  
in three easy steps



**1** **CONNECT** to the Wi-Fi:  
Hotel-WIFI 

**2** **SCAN** this QR code:  
or  
**VISIT** [local.arantia.com](http://local.arantia.com)  
and enter the code:  
12345ABC 

**3** **TAP** the casting icon in your  
cast-enabled app and enjoy! 

 Room 212



**HOSPITALITY**  
**DIGITAL SIGNAGE**

Ref.	Description	
<b>DIGITAL SIGNAGE CLOUD</b>		
<b>DS PLAYERS</b>		
831801	DS Totem with Vertical Display	1
831811	DS SYNC Annual License	1
831812	Nemesis DS Player	1
831815	Nemesis DS Player - T.OX 19" Rack Mounting	1
831830	Nemesis DS Player Wi-Fi (EU PSU included)	1
<b>ACCESSORIES</b>		
830208	Power Supply Unit for STB (UK plug)	1
830213	STB TVI Extension - Samsung	1
830215	STB TVI Extension - LG	1

Ref.	Description	
<b>LOCAL DIGITAL SIGNAGE</b>		
<b>DS SERVER</b>		
831805	Arantia DS Server up to 150 Users	1
<b>DS PLAYERS</b>		
831801	DS Totem with Vertical Display	1
831812	Nemesis DS Player	1
831815	Nemesis DS Player - T.OX 19" Rack Mounting	1
831830	Nemesis DS Player Wi-Fi (EU PSU included)	1
<b>ACCESSORIES</b>		
830208	Power Supply Unit for STB (UK plug)	1
830213	STB TVI Extension - Samsung	1
830215	STB TVI Extension - LG	1

Televés



▲ 831801



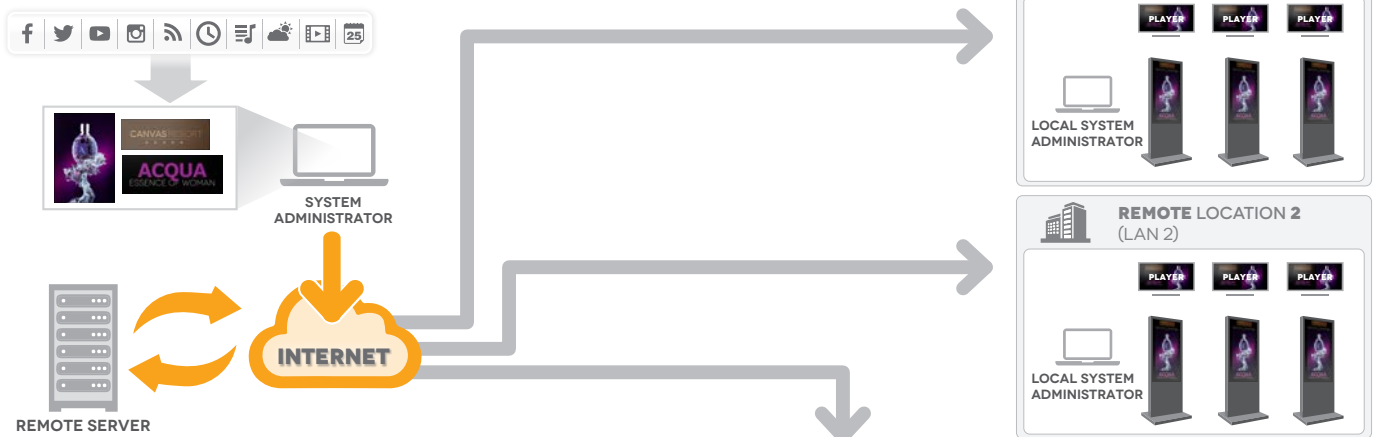
▲ 831830



▲ 831805

**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.

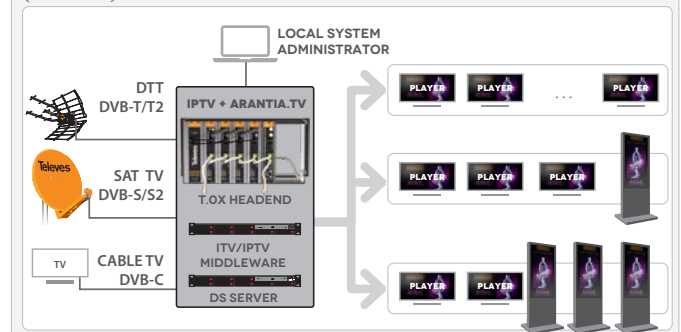
**This architecture is perfect** for distributed DS systems with some DS Players in different locations.

**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.

**LOCAL LOCATION (DS + IPTV)**



Ref.	Description	
<b>TRANSCODER</b>		
832201	Transcoder/Streamer Live	1
832204	Transcoder/Streamer Live Plus	1



▲ 832201



▲ 832204

## TELEPHONY (VOIP)

Ref.	Description	
<b>SUBSCRIBER EQUIPMENT</b>		
<b>ONT/ONU</b>		
769501	Office ONT Module: 4x Gb Ethernet + 2x FXS + 2x USB, WLAN b/g/n	1
769502	Home ONT Module: 4x Gb Ethernet + 2x FXS + 2x USB, WLAN b/g/n, RF Overlay	1
769509	Room ONT Module: 4x Gb Ethernet / PoE (30W) + 2x FXS + 2x USB, RF Overlay	1
769514	Home AC ONT Module: 4x Gb Ethernet + 2x FXS + 1x USB, WLAN b/g/n/ac, RF Overlay	1
769520	SPF ONU Module: GPON	1



▲ 770146

Ref.	Description	
<b>IP PBX</b>		
770146	VOIP PBX Phone System (up to 50 simultaneous calls)	1
770147	VOIP PBX Phone System (up to 200 simultaneous calls)	1



▲ 770147

Ref.	Description	
<b>GATEWAYS</b>		
770401	RDSI Gateway with 2 BRI ports (4 channels) and 2 10/100 Base-T Ethernet ports	1
770402	RDSI Gateway with 4 BRI ports (8 channels) and 2 10/100 Base-T Ethernet ports	1



Ref.	Description	
<b>TERMINALS</b>		
<b>IP</b>		
770101	Wi-Fi Terminal with dual-band Wi-Fi support 802.11a/b/g/n, 2 SIP accounts, 2 lines, 2.4" colour LCD screen	1
770110	IP Terminal with 1 SIP account, 3 XML keys, Backlit LCD screen, Black	1
770120	PoE IP Terminal with 2 SIP accounts, 3 XML keys, Backlit LCD screen, Black	1
770130	PoE Operator IP Terminal with 6 SIP accounts, 12 line keys, 5 XML keys, 4.3" colour LCD screen, Black	1
770150	Extension Module for Operator IP Terminal with 20 programmable keys, 2 navigation keys, LCD screen, Black	1

▲ 770120

<b>ANALOGUES</b>		
770301	Analogue Terminal with 4 direct keys for one touch connection, Black	● 1
770302	Analogue Terminal with 4 direct keys for one touch connection, White	○ 1
770303	Compact Analogue Terminal, Black	● 1
770304	Compact Analogue Terminal, White	○ 1



▲ 770302

## DO IT YOURSELF

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Telecommunications products designed for the non-specialized user who needs to carry out a simple reform or installation at home. Characterized by being simple to use or install, and by having an explanatory and visually attractive packaging, ready to be displayed on the point of sale shelf.



## DO IT YOURSELF TERRESTRIAL ANTENNAS

Ref.	Description		
<b>INTELLIGENT: OUTDOOR SERIES</b>			
<b>ELLIPSE SERIES</b>			
148923	Ellipse Terrestrial Antenna UHF (Ch21-48), G 38dBi BOSS ON PSU included 12V-220mA, UK plug (Single Packing)	TFORCE LTE700	● 1/4
<b>DAT SERIES</b>			
149721	DAT BOSS LR Terrestrial Antenna UHF (Ch21-48) G 19dBi BOSS OFF, G 47dBi BOSS ON (Single packing)	TFORCE LTE700	● 1
149921	DAT BOSS Terrestrial Antenna UHF (Ch21-48) G 17dBi BOSS OFF, G 42dBi BOSS ON (Single packing)	TFORCE LTE700	● 1/5
<b>DINOVA BOSS</b>			
144022	DINOVA BOSS Terrestrial Antenna UHF (Ch21-48) G 7dBi BOSS OFF, G 34dBi BOSS ON (Kit with accessories)	TFORCE LTE700	○ 1
144224	DINOVA BOSS MIX Terrestrial Antenna BIII/UHF (Ch5-12/21-48) G 1/6dBi BOSS OFF, G 27/32dBi BOSS ON (Kit with accessories)	TFORCE LTE700	○ 1
<b>OMNINOVA BOSS</b>			
144422	OMNINOVA BOSS Terrestrial Antenna BI/FM/BIII/UHF (Ch3-12/21-48) G 17/16/25/25dBi BOSS ON (Kit with accessories)	TFORCE LTE700	○ 1
<b>CAMPNOVA BOSS</b>			
144521	CAMPNOVA BOSS Terrestrial Antenna FM/BIII/UHF (Ch5-12/21-48) G -2/20/30dBi BOSS ON (Kit with accessories)	TFORCE LTE700	○ 1



▲ Ellipse



▲ DiNova BOSS



▲ CampNova BOSS

Ref.	Description		
<b>INTELLIGENT: INDOOR SERIES</b>			
<b>BEXIA</b>			
130501	BEXIA Indoor Terrestrial Antenna VHF/UHF (Ch5-12/21-48) G 15/18dBi (USB-microUSB cable included, for 5V powering)	TFORCE LTE700	● 1
<b>MIRA BOSS</b>			
130121	MIRA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 18dBi	TFORCE LTE700	● 1
<b>INNOVA BOSS</b>			
130220	INNOVA BOSS Indoor Terrestrial Antenna UHF (Ch21-48) G 20dBi (USB-microUSB cable included, for 5V powering)	TFORCE LTE700	● 1

## SET TOP BOXES AND DOMESTIC ACCESSORIES

Ref.	Description	
<b>SET TOP BOXES</b>		
<b>SATELLITE TV</b>		
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) (HDMI Cable Male-Male 1.5m included)	1/10



▲ BEXIA

Ref.	Description	
<b>A/V AND IR SENDERS</b>		
<b>WIRELESS A/V AND IR SENDERS</b>		
716701	Digidom Transmitter + Receiver HDMI 5GHz	1/10
<b>WIRELESS IR SENDERS</b>		
721903	Digidom Universal Transmitter, Remote Control Extender, 8 Channels	1/50
723703	Digidom Universal Transmitter + Receiver, Remote Control Extender, 8 Channels	1/30



▲ 130121



▲ 717501



▲ 717402



▲ 723703



▲ 716701

**DO IT YOURSELF**  
**FILTERING AND AMPLIFICATION**

Ref.	Description		
<b>DOMESTIC AMPLIFIERS</b>			
<b>IEC-CONNECTOR SERIES</b>			
545720	Domestic Amplifier 1i/(2o+TV) "IEC": 47...694MHz G 20dB Vo 110dB $\mu$ V + Output to a TV Outlet G 12dB + Preamp.Pow. 12V-100mA (Blister T1)	LTE700	8
552120	Domestic Amplifier 1i/2o "IEC": 47...694MHz G 22dB Vo 104dB $\mu$ V (Blister T1)	LTE700	8
552740	Domestic Amplifier 1i/1o "IEC": 47...790MHz G 25dB Vo 112dB $\mu$ V (Blister T1)	LTE790	8
552840	Domestic Amplifier 1i/(2o+TV) "IEC": 47..790MHz G 20dB Vo 106dB $\mu$ V + Output to a TV Outlet G 12dB (Blister T1)	LTE790	8
552940	Domestic Amplifier 1i/(4o+TV) "IEC": 47..790MHz G 16dB Vo 102dB $\mu$ V + Output to a TV Outlet G 11dB (Blister T1)	LTE790	8
<b>F-CONNECTOR SERIES</b>			
545802	Auto-LTE Domestic Amplifier 1i/(2o+TV) "F" : 47...694/790MHz G 20dB Vo 101dB $\mu$ V Auto-Adjustment + Output to a TV Outlet G 11dB + Preamplifier Powering 12V-100mA, UK plug (Blister T1)	AUTOLTE	8
552220	Domestic Amplifier 1i/(2o+TV) "F": 47...694MHz G 20dB Vo 106dB $\mu$ V + Output to a TV Outlet G 12dB (Blister T1)	LTE700	8
552320	Domestic Amplifier 1i/(4o+TV) "F": 47...694MHz G 16dB Vo 102dB $\mu$ V + Output to a TV Outlet G 12dB (Blister T1)	LTE700	8
553120	Domestic Amplifier 1i/6o "F": 47...694MHz G 14dB Vo 95dB $\mu$ V (Blister T1)	LTE700	8
Ref.	Description		
<b>ATTENUATORS</b>			
<b>PLUG-IN FORMAT: IEC CONNECTOR</b>			
4315	Adjustable Attenuator "IEC" $\varnothing$ 9.5mm 1 to 25dB VHF/UHF DC Pass (Bag B1)		10

**DISTRIBUTION**

Ref.	Description		
<b>SPLITTERS</b>			
<b>EASYF SERIES</b>			
434103	Mini-Splitter 5...2400MHz "EasyF" 2W 4.5/4.3dB DC Pass All With Outdoor Mounting Case (Blister T1)	●	10
434202	Splitter 5...2400MHz "EasyF" 4W 9/7.5dB DC Pass 0-I With Outdoor Mounting Case (Blister T1)	●	8



▲ 553120



▲ 4315



▲ 434103



▲ 434202



## DO IT YOURSELF CABLES AND CONNECTORS

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Ref.	Description		
<b>COAXIAL</b>			
<b>TRIPLE SHIELDING EXTENSION CORDS (TSH)</b>			
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
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
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
385501	Coaxial Cable Lead "F" Compression - "IEC" Female "PRO EasyF" 3m White (Bag B0)	○	20
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
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
<b>DOUBLE SHIELDING EXTENSION CORDS</b>			
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
<b>ACCESSORIES</b>			
2162	Cable Stripper for Coaxial Cable and Data Cable (Bag B2)		1
<b>DATA</b>			
<b>PATCH-CORDS</b>			
209001	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 0,5m White (Bag B0)	○	1
209002	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 1m White (Bag B0)	○	1
209003	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 2m White (Bag B0)	○	1
209004	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 3m White (Bag B0)	○	1
209005	Patch-cord RJ45 U/UTP Cat 6 Cu PVC 5m White (Bag B0)	○	1
209102	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 1m Grey (Bag B0)	●	1
209103	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 2m Grey (Bag B0)	●	1
209104	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 3m Grey (Bag B0)	●	1
209105	Patch-cord RJ45 S/FTP Cat 6A Cu LSFH 5m Grey (Bag B0)	●	1
<b>OPTICAL FIBRE</b>			
<b>PRE-TERMINATED PATCH CORDS</b>			
232621	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 2m (Bag B4)	●	10
232623	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 0.5m (Bag B4)	●	20
232624	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC-FC/UPC" 2m (Bag B4)	●	10
★ 232626	F.O.Patch Cord Single-mode Indoor LSFH "SC/APC" 1m (Bag B4)	●	20
<b>AUDIO/VIDEO</b>			
<b>HDMI</b>			
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

## MECHANICAL ACCESSORIES

Ref.	Description	
<b>MAST MOUNTING</b>		
4361	Guy Wire Mounting Kit Ø 45mm	1/5

CLASS A\*\*



▲ 385101



▲ 431001



▲ 2162



▲ 494501



▲ 4361

## TERMS & CONDITIONS OF SALE

### 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:
- The correspondence of the Goods to any description or
  - The quality of the Goods or
  - The fitness of the Goods for any purpose whatsoever.
- All implied terms, conditions or warranties whether statutory or otherwise as to
- The correspondence of the goods to any description or the merchantable quality of the Goods or
  - 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):
- 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
  - To require payment in advance of delivery of undelivered Goods; and
  - 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
  - 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

## TERMS & CONDITIONS OF SALE

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 than 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).

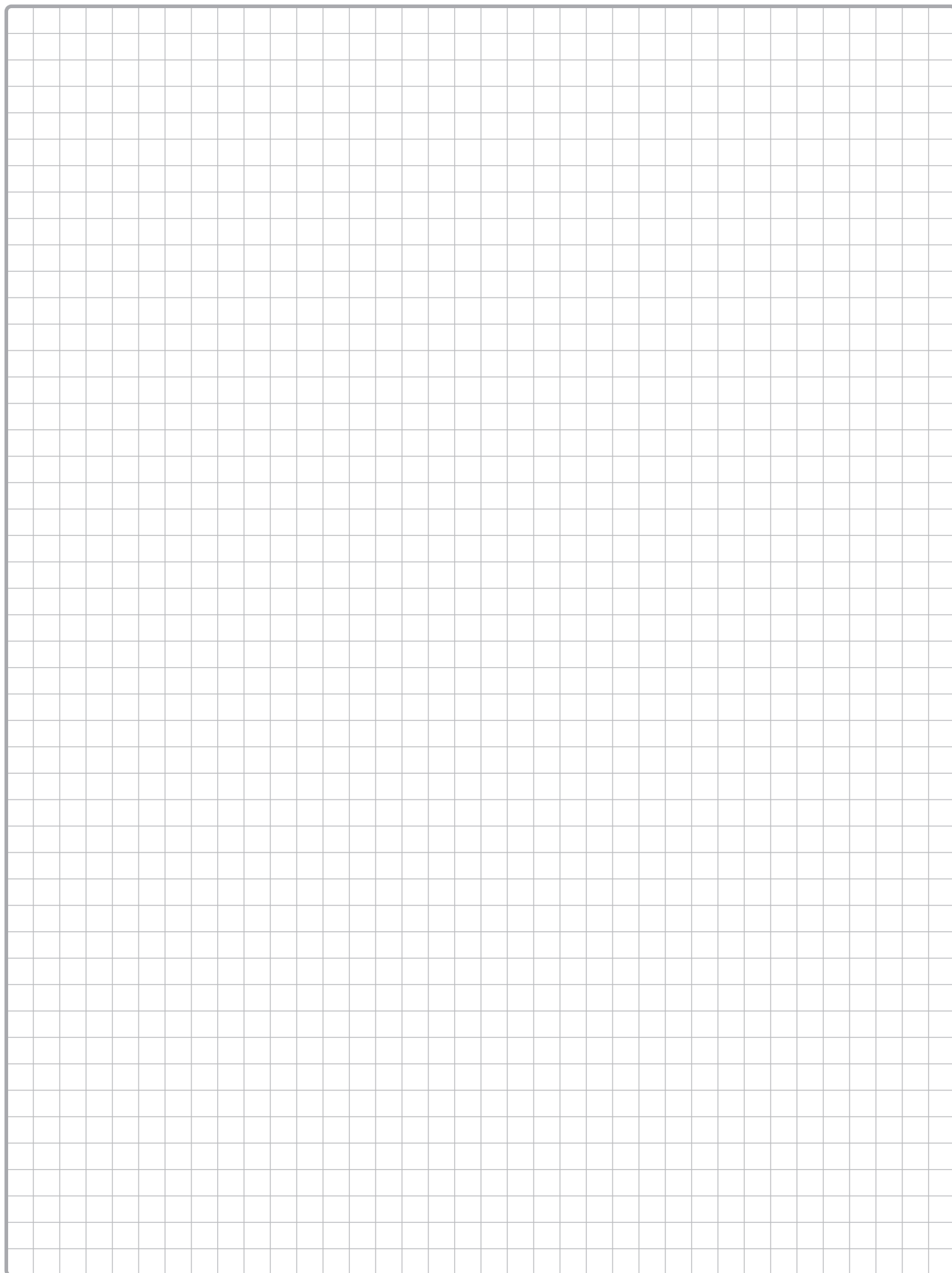
### LAW

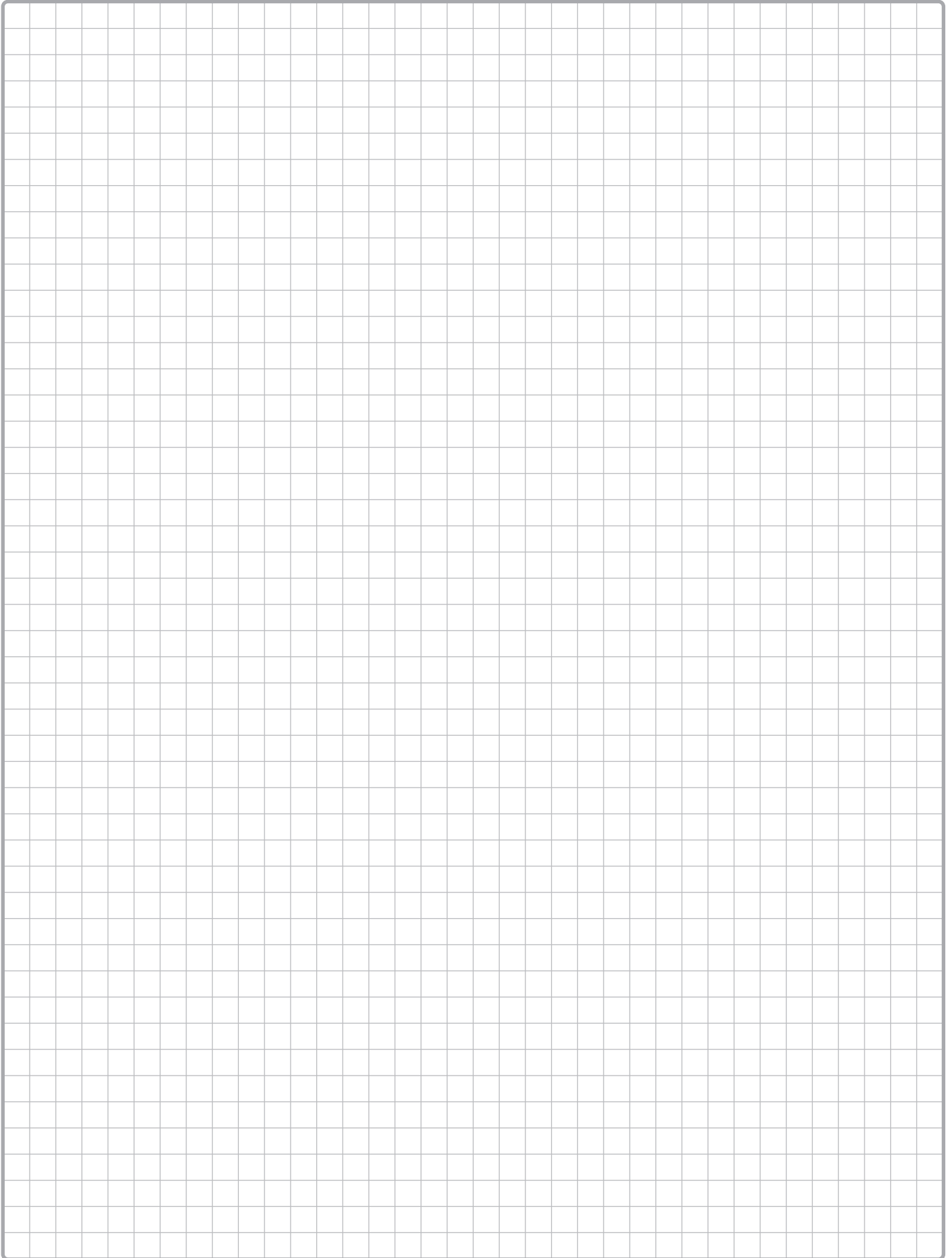
18.1. These Conditions shall be governed by and construed according to English law and the parties to the Contract hereby submit to the non-exclusive jurisdiction of the English Courts.

### WEEE COMPLIANCE B2B

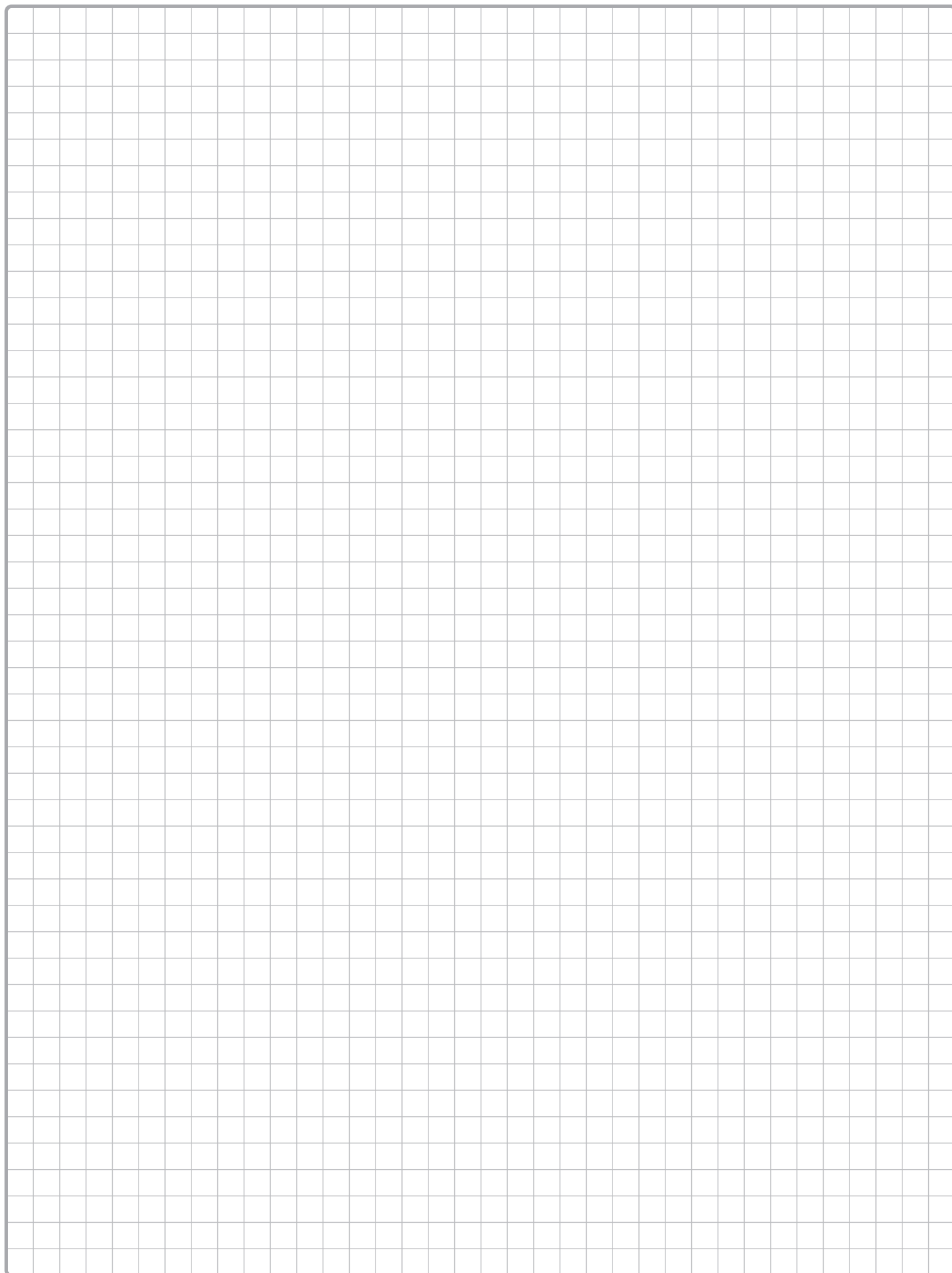
19.1. The B2B end user is responsible for all liabilities regarding the environmentally sound disposal of this EEE when is discarded as WEEE.

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.









**COMMERCIAL NETWORK**  
FOR THE UNITED KINGDOM & REPUBLIC OF IRELAND

**TELEVES UNITED KINGDOM LTD**

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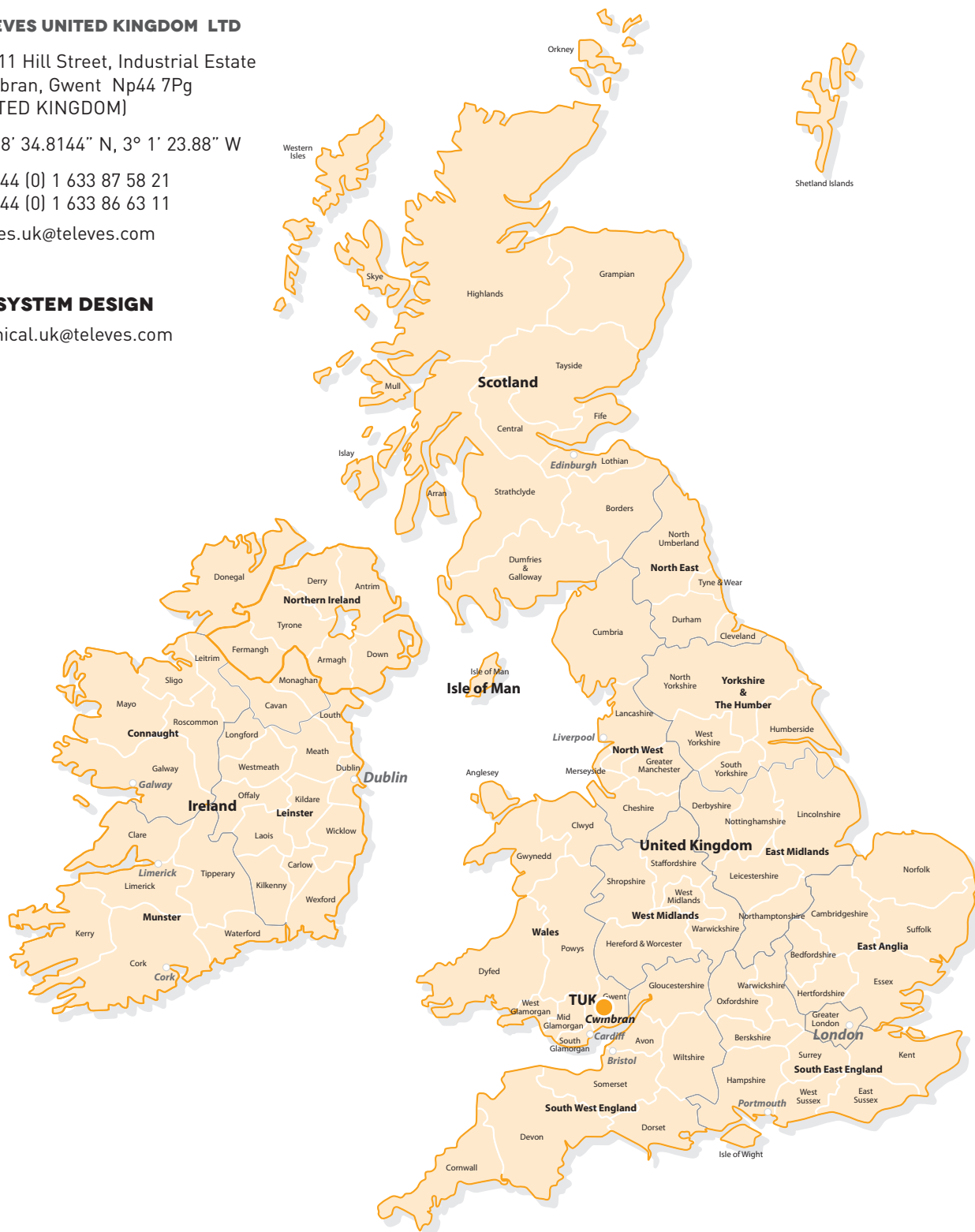
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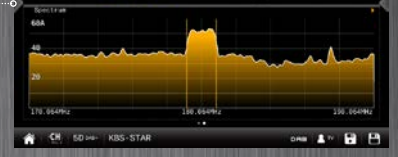
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DAB/DAB+



ANALOGUE MEASURES



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