Televes®

IRS

PRODUCT GUIDE **2016 / 2017**

INDEX

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Identifying colour in product

| O | Orange | G | Grey | B | Black | ★ | New |
| W | White | Gr | Graphite | | | | Pack boxed in |

AERIALS, DISHES & LNBs

MMIC

DATBOSS

WHEN YOU THOUGHT NOTHING COULD IMPROVE BOSSTECH FOR A PERFECTLY BALANCED DTT OUTPUT SIGNAL, **TELEVES INTRODUCES DAT BOSS TForce**

The same Gallium Arsenide (GaAs) technology utilized in aeronautics to recover signals from lost spacecraft is now incorporated into Televes DAT BOSS TForce antenna

The largest signal dynamic margin for a DTT antenna in the world

27% increased coverage range

T·FORCE
TECHNOLOGY

If *DATBOSS TForce* can not detect it, it can not be seen!

AERIALS AND DISHES

Televes' range of aerials, dishes and LNBs to use in IRS systems to provide the best incoming signals.

AERIALS

Due to its gain and directivity the **DAT HD BOSS 790 LR** aerial is the perfect solution for reception of poor/weak signals. When the BOSSTech is ON the gain reaches 34dBi and the quality of the output signal is optimized.

VZenit is a CAI benchmarked antenna (Std F) designed to accomodate any channel plan, regardless of the upper cut off frequency. It features CDS Technology (Channel Selection Geometry) with which the antenna works as an adjustable filter for UHF channels 58, 59 and 60 just changing the position of its directors.

The **DINOVA** is a BOSS antenna specially designed for the reception of DTT/DAB/FM (and ready to reject LTE/4G). Characterised by its easy installation, robustness, low visual impact and exceptional RF performance.

DAT HD BOSS 790 LR		149741	
Antenna working mode		OFF	ON
Working band	MHz	470...790	
Max. gain	dBi	19	34
Noise figure	dB	NA	2
Output level working mode		NA	Auto
Max. Output level	dBuV	<75	
Powering voltage	V	NA	12…24
Max. consumption	mA	NA	40
Beamwidth		27º	
Wind load	N	141 @ 130 km/h 194 @ 150 km/h	

REF.	DESCRIPTION		
149741	DAT HD BOSS 790 LR Terrestrial Antenna UHF (Ch21-60) G 19dBi BOSS OFF, 34dBi BOSS ON (Single Packing)	O	1
149212	V ZENIT Terrestrial Antenna UHF (Ch21-58/59/60 Configurable bandwidth) G 15dBi (Multiple Packing)	B	10
144145	DINOVA BOSS Terrestrial Antenna FM/BIII/UHF G -2/10/22dBi (Without accessories)	W	1

DiNova BOSS			144145		
Antenna working mode		OFF		ON	
Working band	MHz	FM/BIII	UHF 470-790	FM/BIII	UHF 470-790
Max. gain	dBi	-2/-2	4…7	-2/10	19…22
Noise figure	dB	NA		-/3	2
Output level	dBuV	NA		Auto	
Powering voltage	Vdc	12…24			
Max. consumption	mA	NA		32@12Vdc - 37@24Vdc	
Protection index	IP	53			
Wind load	N	69.6 @ 130 km/h 95.7 @ 150 km/h			

V ZENIT-CAI Benchmarked		149212		
Mode		→	→	→
Working band	MHz	470 - 774 CH 21 - 58	470 - 782 CH 21 - 59	470 - 790 CH 21 - 60
Gain	dBi	15		
Front-to-Back- ratio	dB	23		
Wind load	N	93 @130Km/h 128 @150Km/h		

ISD SERIES

ISD DISHES

Flexible LNB holder
MADE OF FIBREGLASS

Hide the cables in the arm
MADE OF ALUMINIUM

Best performance against corrosion
ALUMINIUM DISH AND STAINLESS STEEL SCREWS

DESIGNED TO LAST

High resistance reflector bracket
MADE OF FIBREGLASS

**Robust pole clamp
and bracket with adjustable elevation angle**
MADE OF ZAMAK

This new range of satellite dishes is built using aluminium, fibreglass and stainless steel to guarantee the protection against rust.

Its improved structure has been designed to make assembly easier.

REF.	DESCRIPTION		
792012	Offset Dish 630 Steel G 35.5dB (No Televes logo)	W	10
792022	Offset Dish 630 Steel G 35.5dB (No Televes logo)	W	100
793002	Offset Dish 630 ISD Alluminium G 36,6dB	W	1
793012	Offset Dish 630 ISD Alluminium G 36,6dB	W	10
793109	Offset Dish 830 ISD Alluminium G 39dB (No Televes logo)	Gr	1
793119	Offset Dish 830 ISD Alluminium G 39dB (No Televes logo)	Gr	5

ASTRA   eutelsat   hispasat   ARABSAT عرب سات   Nilesat   TURKSAT   AMAZONAS

*Scan this QR code
to watch the assembly video.*

https://youtu.be/4dKq4Kgl_Zw
QR-A00371

630 AND 830
SATELLITE DISHES

AERIALS AND DISHES

Televes' range of aerials, dishes and LNBs to use in IRS systems to provide the best incoming signals.

Qsd
Quality Satellite Dish

QSD DISHES & LNBs

Televes'QSD dishes guarantee the best performance against strong winds and prevention against rust. Whilst being extremely easy to mount, thanks to their folding arm and pre-mounted support.

Use it in conjunction with the Universal Quattro LNB Ref. 747102 with low noise figure and high gain and coloured-coded outputs.

- ▪ Aluminium reflector with diecast Zamak LNB holder.
- ▪ Folding arm for a fast and easy mounting.
- ▪ Pre-mounted support and arm.
- ▪ Hot galvanized robust support.
- ▪ Hidden cable routing system with folding tabs.
- ▪ Stainless steel screws.

QSD Range		QSD 75	QSD 85
Dimensions	mm	750 x 850	
Gain	dB	38.5	39.5
Frequency	GHz	10.7 - 12.75	
Beamwidth (-3dBi)		2.31	1.98
F-D Relation	dBuV	0.6	
Elevation	º	10 - 80	
Weight. aprox	kg	8.5	9.3
Windload	N	523.2 N[1] 719.4 N[2]	672 N[1] 924 N[2]

(1) @ 130 km/h   (2) @ 150 km/h

REF.	DESCRIPTION		
DISHES			
790202	QSD High Quality Offset Dish 75 Aluminium G 38.5dB (750x850mm)	Gr	1
790204		O	1
790302	QSD High Quality Offset Dish 85 Aluminium G 39.5dB (850x950mm)	Gr	1
790304		W	1
LNBs			
7475	Offset LNB Single (Universal) Hh/Vh/Hl/Vl G 58dB	O	1/10
747102	Offset LNB Quattro Hh-Vh-Hl-Vl G 60dB Grey	G	1/50
747802	Offset LNB Twin (2 Outputs Hh/Vh/Hl/Vl) G 57dB	O	1/30
761001	Offset LNB Quad (4 Outputs Hh/Vh/Hl/Vl) G 58dB	O	1/30
7613	Offset LNB Octo (8 Outputs Hh/Vh/Hl/Vl) G 57dB	O	1/30
761301	Offset LNB Octo (8 Outputs Hh/Vh/Hl/Vl) G 60dB	G	1/30

▲ 7475

▲ 747102

NEVOSWITCH

(MULTISWITCH RANGE)

NEW RANGE OF MULTISWITCHES

100% MANUFACTURED AND VERIFIED IN OUR ROBOTIZED LINES

Nevoswitch®

MSW can be used to power a setback/mast amplifier or a BOSS Tech antenna

Chassis made of ZAMAK
Improved screening attenuation

Independent Adjustment
of each user output level

ECO mode:
the consumption decreases as the number of users is reduced

Versatile.
The same MSW can be configured as cascade or stand-alone with the flick of a switch

Multiple powering options (Vertical/Low polarity):

In-line (cascade) from any point in the system

From the Set-top-box (no PSU required in the MSW)

From an external PSU

Small size and compact design

FULL RANGE AVAILABLE

5X, 9X, 13X AND 17X: UP TO 4 SATELLITES
FROM 4 TO 32 USER OUTPUTS
QUAD COMPATIBLE VERSIONS FOR THE 5X RANGE

Nevoswitch® (MULTISWITCH RANGE)

5 WIRE MULTISWITCH RANGE

Terrestrial I/O powering control

75 Ohm load control switch

Output signal level control

- All multiswitch references are valid for standalone, star or cascadable configuration.
- Independent signal level control for every output.*
- Multiple powering options: Mains, line and receiver powered.
- Scalable gain to accomodate different cable runs in the same switch.
- Output earth bond bars included:
  - Zamak-made chassis (radiation inmune).
  - ECO mode: the overall consumption is reduced as the number of users decreases.

Provide Digital TV from four different satellite polarities plus Freeview to a large number of users.

Available in 8, 12, 16, 24 and 32 outputs with a small and compact design to provide an easy and quick installation.

* Feature available on 714503, 714504, 714505, 714506 and 714507.

5X TECHNICAL SPECIFICATIONS

References			714503	714504	714505	714506	714507	714901	714902	714903	714904	714905
Type			5 x 5 x 8	5 x 5 x 12	5 x 5 x 16	5 x 5 x 24	5 x 5 x 32	5 x 5 x 5	5 x 5 x 5	5 x 5 x 5	5 x 5 x 5	5 x 5
Frequency range	MHz	SAT	950 ... 2400			950 ... 2400		950 ... 2400				
		RF	47 ... 862			47 ... 862		47 ... 862				
Input level	dBµV	SAT	105			105		-				
		RF	92			92		-				
Adjustable gain	dB		12			12						
Through losses	dB	SAT	1.5 … 4	3 … 8		4.5 … 12	6 .. 16	1,5 ±0,5				4 ± 1
		RF	2	4		6	9	1,5 ±0,5				4 ± 1
Tap losses [2] 1..8 / 9..16 /17..24 / 25..32	dB	SAT	1[1] / - / - / -	1[1] / 2 / - / -		1[1] / 2 / 5 / -	1[1] / 2 / 5 / 8	15 ± 3	17 ± 3	21 ± 3	26 ± 3	-
		RF	2 / - / - / -	2 / 4 / - / -		2 / 4 / 6 / -	2 / 4 / 6 / 8	12 ± 1	15 ± 1	20 ± 1	25 ± 1	-
Isolation	dB	H/V	>30			>30		>25				
		Users	>25			>25						
DC pass			In-Out / Out-In			In-Out / Out-In		In-Out / Out-In				-
Max. total consumption	mA	PSU [3]	40	85	105	175	210	-				
		SAT STB	40 [4]			40 [4]		-				
Temperature range	ºC		−5 ... +45			−5….+45		−5….+45				
Protection level	IP		20			20		20				
Weight	g		400	765	800	1200	1600	400				330
Dimensions	mm		137x120x30	137 x 253 x 30		137x383x30	137x519x30	137 x 120 x 30				

(1) Gain.   (2) Adjustable 0...12dB, only refs 7145xx.   (3) if output charged => + 25mA.   (4) 40 mA + PSU POWER if not external PSU.

5 WIRE MULTISWITCH QUAD RANGE

QUAD compatible units are available in 8, 12 and 16 outputs. These multiswitches have independent control on every sat feed of both polarization and band via 13/17V switching and 22 kHz tone on/off respectively.

- Compatible with both QUAD and QUATTRO LNBs.
- Receiver powered, mains powered or remote location powering.
- D.C. for masthead powering.
- Low consumption.
- Cascade output allows for future expansions of the system.
- Also allows for an easy upgrade for dSCR.

▲ 714414

▲ 714413

5X TECHNICAL SPECIFICATIONS

| References			714413	714414	714415
Type			5 x 5 x 8	5 x 5 x 12	5 x 5 x 16
			QUAD [5]		
Frequency range	MHz	SAT	950 ... 2400		
		RF	47 ... 862		
Input level	dBµV	SAT	105		
		RF	92		
Adjustable gain	dB		12		
Through losses	dB	SAT	1.5 … 4	3…8	
		RF	2	4	
Tap losses [2] 1..8 / 9..16 /17..24 / 25..32	dB	SAT	1[1] / –	1[1] / 2	
		RF	2 / -	2 / 4	
Isolation	dB	H/V	>30		
		Users	>25		
DC pass			In-Out / Out-In		
Max. total consumption	mA	PSU [3]	40	85	105
		SAT STB	40 [4]		
Temperature range	ºC		−5….+45		
Protection level	IP		20		
Weight	g		400	765	800
Dimensions	mm		137 x 120 x 30	137 x 253 x 30	

▲ 714415

(1) Gain.   (2) Adjustable 0...12dB, only refs 7145xx.   (3) if output charged => + 25mA.   (4) 40 mA + PSU POWER if not external PSU.   (5) The NevoSwitches QUAD now include a UK PSU.
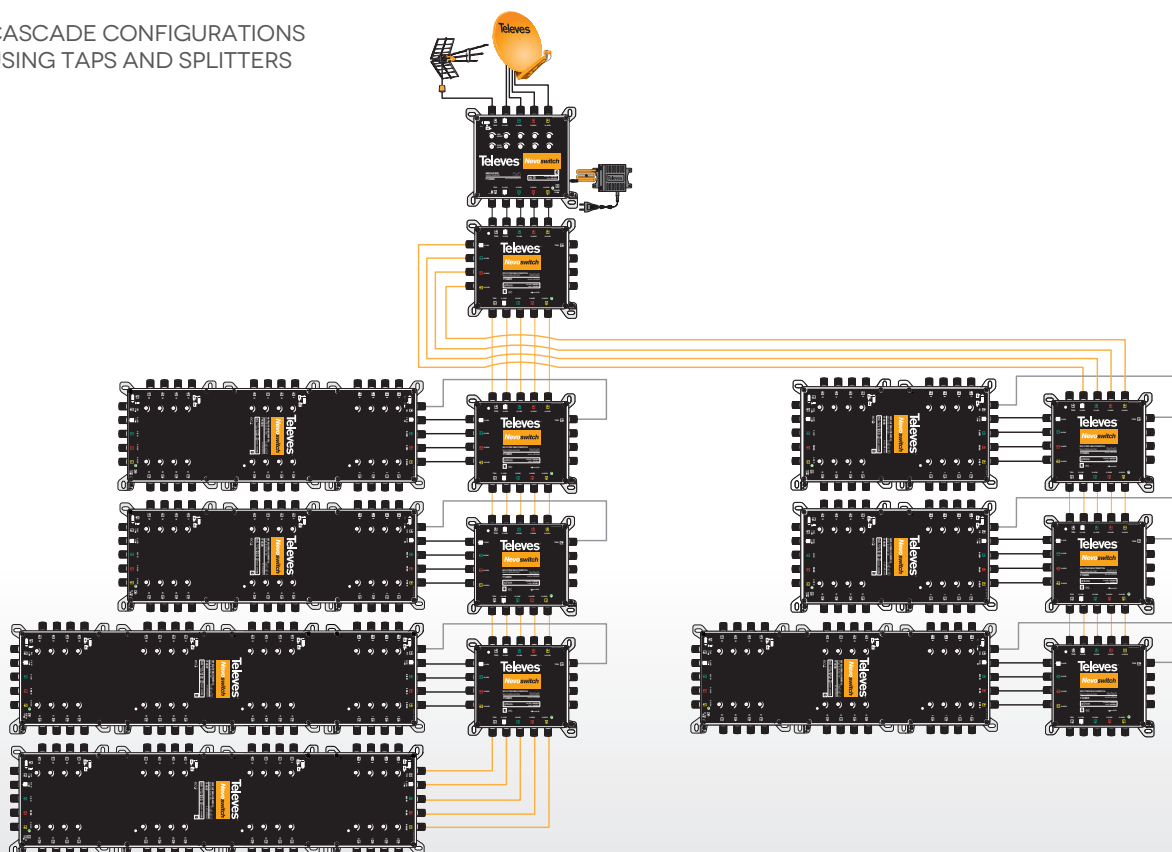
Nevoswitch® (MULTISWITCH RANGE)

5 WIRE RANGE – EXAMPLES

STANDALONE/CASCADE
CONFIGURATIONS
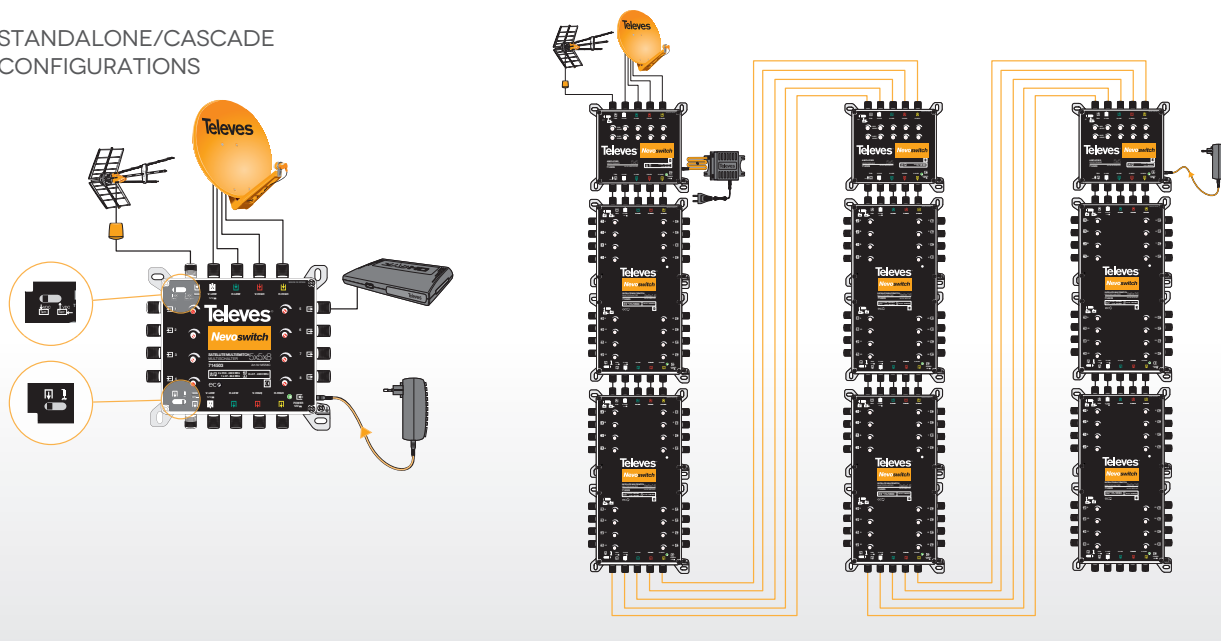
CASCADE CONFIGURATIONS
USING TAPS AND SPLITTERS

9 WIRE MULTISWITCH RANGE

Provide Digital TV from eight different satellite polarities plus Freeview to a large number of subscribers. Available in 8, 12, 16, 24 and 32 outputs, with a small and compact design to provide an easy and quick installation.

- Signal level control for each 8-user group.
- All switch references are valid for standalone, star or cascadable configuration.
- Switch to choose between Low and High for the satellite feeds.
- Multiple powering options: mains and line powered.
- Scalable gain to accomodate different cable runs in the same switch.
- Output earth bond bars included:
  - Zamak-made chassis (radiation inmune).
 - ECO mode: the overall consumption is reduced as the number of users decreases decreases.

Low Gain/High Gain Controlswitch

75 Ohm Load control switch

▲ 714603

▲ 714601

9X TECHNICAL SPECIFICATIONS

References			714601	714602	714603	714604	714605
Type			9 x 9 x 8	9 x 9 x 12	9 x 9 x 16	9 x 9 x 24	9 x 9 x 32
Frequency range	MHz	SAT	950 ... 2400				
		RF	88 ... 862				
		RP	5 ... 65				
Input level	dBµV	SAT	112				
		RF	90				
Adjustable gain		dB	10				
Through losses	dB	SAT	2…5	3.5 … 10		6…15	8…18
		RF	2	4		6	8
		RP	3	6		9	12
Tap losses 1..8 / 9..16 /17..24 / 25..32	dB	SAT[1]	0/-/-/-	0/4/- /-		0/4/8/-	0/4/8/12
		RF	4/-/-/-	4/6/-/-		4/6/8/-	4/6/8/10
		RP	34/-/-/-	34/37/-/-		34/37/40/-	34/37/40/43
Isolation	dB	H/V	>30				
		Users	>25				
DC pass			In-Out / Out-In				
Max. total consumption	mA	PSU Low Gain[2]	40	85	85	130	170
		PSU High Gain[2]	85	155	180	265	355
		Receiver	40				
Temperature range		ºC	−5….+45				
Protection level		IP	20				
Weight		g	700	1500	1500	2300	3100
Dimensions		mm	140 x 120 x 30	140 x 255 x 30	140 x 255 x 30	140 x 383 x 30	140 x 510 x 30

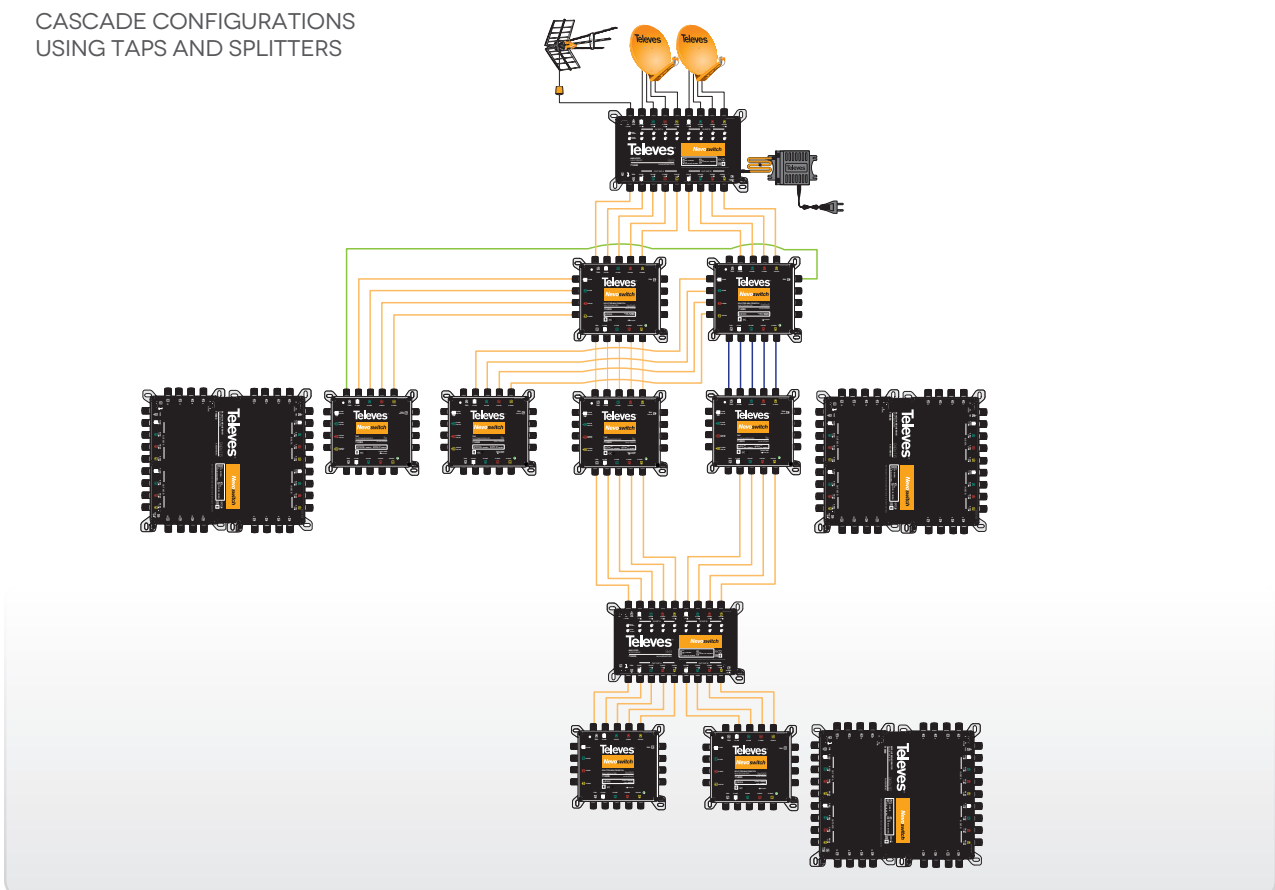*(1) LG - 10 dB   (2) if output charged => + 45mA*

*Nevo*switch® (MULTISWITCH RANGE)

9 WIRE RANGE – EXAMPLES

STANDALONE/CASCADE
CONFIGURATIONS
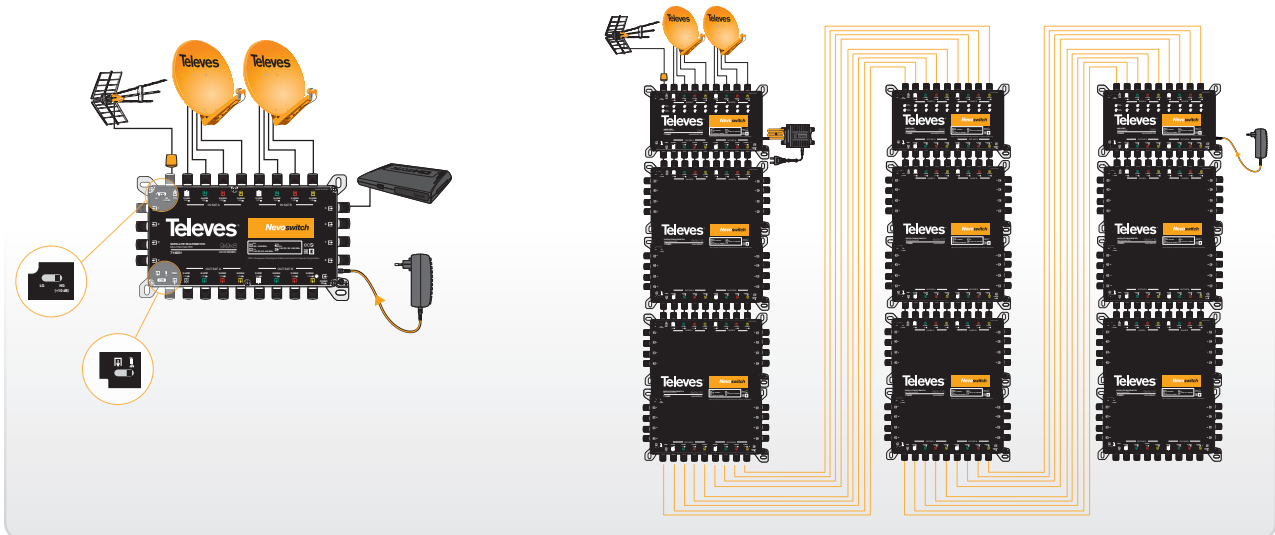
CASCADE CONFIGURATIONS
USING TAPS AND SPLITTERS

13 & 17 WIRE MULTISWITCH RANGE

Provide Digital TV from 12 or 16 different satellite polarities plus Freeview to a large number of subscribers. Available in 8, 12, 16, 24 and 32 outputs, with a small and compact design to provide an easy and quick installation.

- Signal level control for each 8-users group.
- All switch references are valid for standalone, star or cascadable configuration.
- Switch to choose between Low and High for the satellite feeds.
- Multiple powering options: mains and line powered.
- Scalable gain to accomodate different cable runs in the same switch.
- Output earth bond bars included:
  - Zamak-made chassis (radiation inmune).
  - ECO mode: the overall consumption is reduced as the number of users decreases.

▲ 714803

▲ 714701

## 13X TECHNICAL SPECIFICATIONS　　17X TECHNICAL SPECIFICATIONS

References			714701	714702	714703	714704	714705	714801	714802	714803	714804	714805
Type			13 x 13 x 8	13 x 13 x 12	13 x 13 x 16	13 x 13 x 24	13 x 13 x 32	17 x 17 x 8	17 x 17 x 12	17 x 17 x 16	17 x 17 x 24	17 x 17 x 32
Frequency range	MHz	SAT	950 ... 2400					950 ... 2400				
		RF	88 ... 862					88 ... 862				
		RP	5 ... 65					5 ... 65				
Input level	dBµV	SAT	112					112				
		RF	90					90				
Adjustable gain		dB	-					-				
Through losses	dB	SAT	2…5	3.5 … 10		6…15	8…18	2…5	3.5 … 10		6…15	8…18
		RF	2	4		6	8	2	4		6	8
		RP	3	6		9	12	3	6		9	12
Tap losses 1..8 / 9..16 /17..24 / 25..32	dB	SAT[1]	3/-/-/-	3/6/- /-		3/6/10/-	3/6/10/14	3/-/-/-	3/6/- /-		3/6/10/-	3/6/10/14
		RF	4/-/-/-	4/6/-/-		4/6/8/-	4/6/8/10	4/-/-/-	4/6/-/-		4/6/8/-	4/6/8/10
		RP	34/-/-/-	34/37/-/-		34/37/40/-	34/37/40/43	34/-/-/-	34/37/-/-		34/37/40/-	34/37/40/43
Isolation	dB	H/V	>30					>30				
		Users	>25					>25				
DC pass			In-Out / Out-In					In-Out / Out-In				
Max. total consumption	mA	PSU Low Gain[2]	40	85	85	130	170	45	90	90	130	170
		PSU High Gain[2]	85	150	170	260	350	90	150	170	260	350
		Receiver	40					40				
Temperature range	ºC		−5….+45					−5….+45				
Protection level	IP		20					20				
Weight	g		900	1800	1900	2900	3900	1100	2400	2400	3700	5000
Dimensions	mm		280x120x30	280x253x30	280x253x30	350x385x30	350x520x30	350x120x30	350x253x30	350x253x30	350x285x30	350x515x30

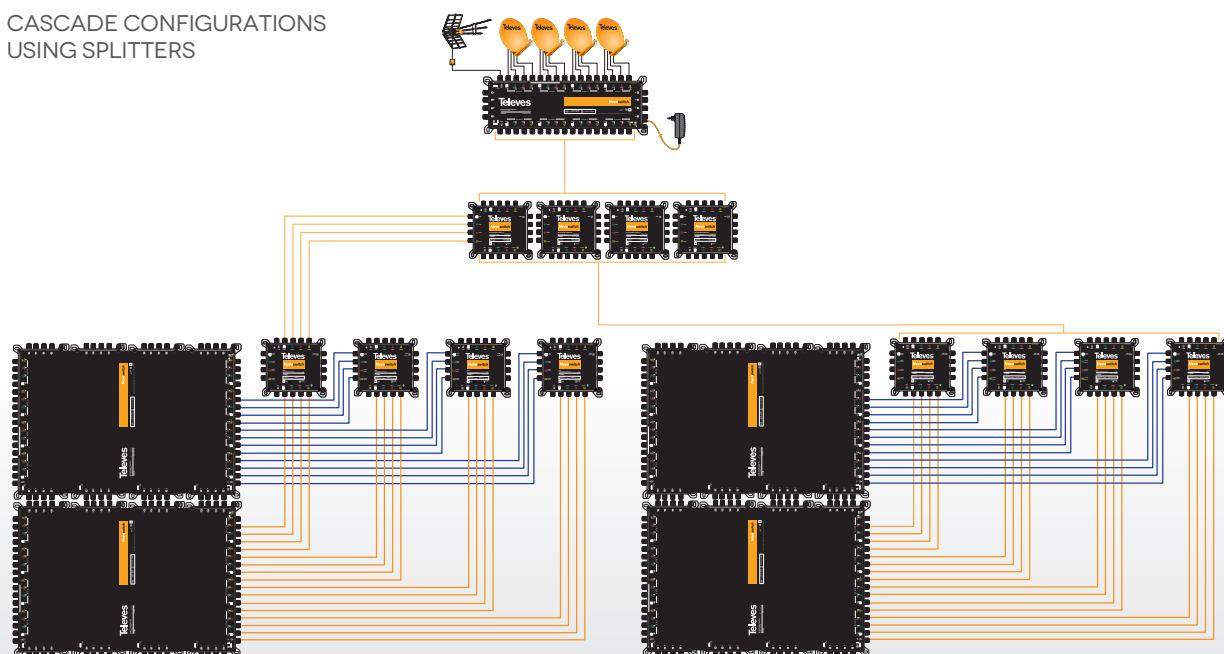(1) LG - 10 dB　　(2) NevoSwitch 13x: if output charged => + 65mA ; NevoSwitch 17x: if output charged => + 85mA

Nevoswitch® (MULTISWITCH RANGE)

13 AND 17 WIRE RANGE – EXAMPLES

STANDALONE/CASCADE
CONFIGURATIONS
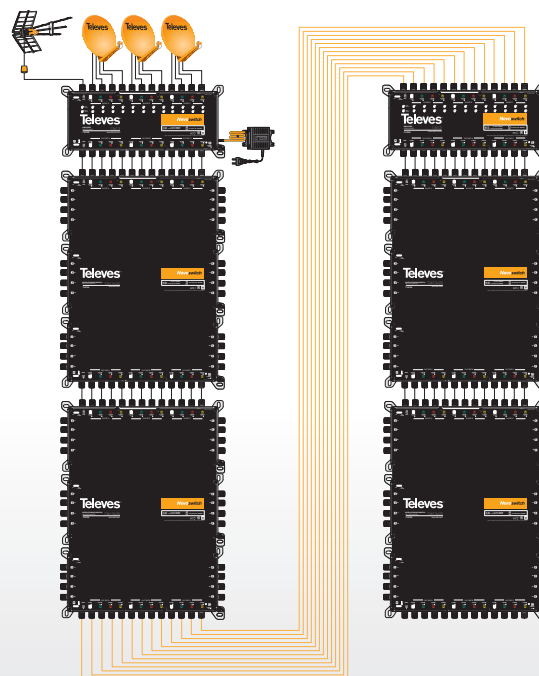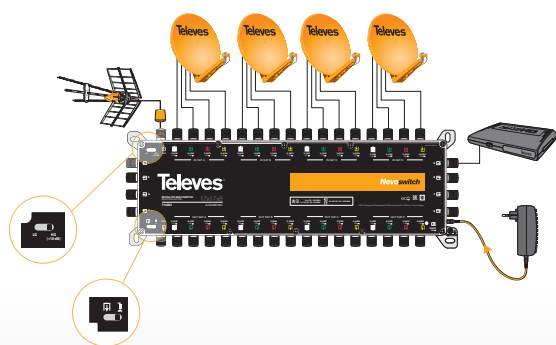
CASCADE CONFIGURATIONS
USING SPLITTERS

TAPS AND SPLITTERS

Available in 25, 20, 12 and 8 dB loss and a 5x10 splitter.

REF.	DESCRIPTION	dB	📦
714906		8	1
714901		12	1
714902	Tap 5x5x5 "F"	15	1
714903		20	1
714904		25	1
714905	Splitter 5x10	4/4	1

▲ 714901   ▲ 714905

AMPLIFIERS

Our Nevo range of amplifiers 5x, 9x, 13 and 17x line has been completed with a new low gain amplifier ref. 714508 designed mainly for small IRS systems. The new unit brings more flexibility within installations.

- ▪ A cost-effective design.
- ▪ Less equipment.
- ▪ An easier installation.

REF.	DESCRIPTION	📦
714508	Amplifier 5x5 "F" MATV/IF G 12/15dB Vo 110dBμV	1
714509	Amplifier 5x5 "F" MATV/IF G 27/25dB Vo 110dBμV	1
714609	Amplifier 9x9 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBμV	1
714709	Amplifier 13x13 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBμV	1
714809	Amplifier 17x17 "F" Ret.P/MATV/IF G -/27/25dB Vo 110dBμV	1

▲ 714809

▲ 714508

Low gain amplifier

References			714508	714509	714609	714709	714809
Type			5 x 5		9 x 9	13 x 13	17 x 17
Frequency range	MHz	SAT	950 … 2400				
		RF	47 … 862		88 … 862		
		RP	-		5 … 65		
Output level	dBμV	SAT EN50083-3 IM35dBc	110				
		RF DIN 45004-B	110				
Gain	dB	SAT	15	25	25		
		RF	12	27	27		
		RP	-		-3		
		Regulation	10		10		
		Slope	0 .. 7				
Isolation	dB		>25				
Powering	Vdc		12				
DC pass			250 mA (see the picture)		In-Out / Out-In		
Max. total consumption	mA		200		400	380	700
Temperature Range	ºC		−5….+45				
Protection level	IP		20				
Weight	g		400		700	830	1100
Dimensions	mm		137 x 120 x 30		140 x 120 x 30	280 x 120 x 30	350 x 120 x 30

Nevoswitch® (MULTISWITCH RANGE)

ACCESSORIES

EARTH BARS

REF.	DESCRIPTION	📦
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

▲ 993810

▲ 993811

PSUs (POWER SUPPLY UNITS)

REF.	DESCRIPTION	📦
732210	Power Supply Unit 12V-1.5A *(UK plug)*	1
732801	Power Supply Unit 12V-3A	1

▲ 732210

▲ 732801

CABINETS

REF.	DESCRIPTION	📦
5749	Outdoor Lockable Cabinet Medium Model (IP66 Standard) Dimensions: 600x380x210mm	1
5893	Indoor Lockable Cabinet (IP20 Standard) Dimensions: 300x400x200mm	1

▲ 5749

OTHER ACCESSORIES

| REF.	DESCRIPTION	mm	📦
4174	Set of 5 Colour Coded Leads "Quick F"	260	1
4061	Terminal Load "F" 75Ohm with DC Blocked		10/200
3821	Adapter "Quick F" Male - "F" Male, Plastic Box		50/500
4071	DC Blocker "F"		10

▲ 4147

▲ 3821

▲ 4061

▲ 4071

Background

The commercial launch of SkyQ in February 2016 will mean that any existing or new system that doesn't include dSCR Multiswitches will need to be upgraded in order for the SkyQ box to work in that system.

The purpose of this document is to explain how those changes should be done in a system designed with Televes IRS equipment. We will describe the best and easier way of upgrading those system in the more common system designs.

CASE 1:
5 wire cascade system with taps NevoSwitch

Adding dSCR Multiswitches is very simple as by connecting them to the cascade output of the NevoSwitch and adding in line DC blocks the new system is completely isolated from the current system both from a RF and DC point of view.

Cascade Switch must be on the left
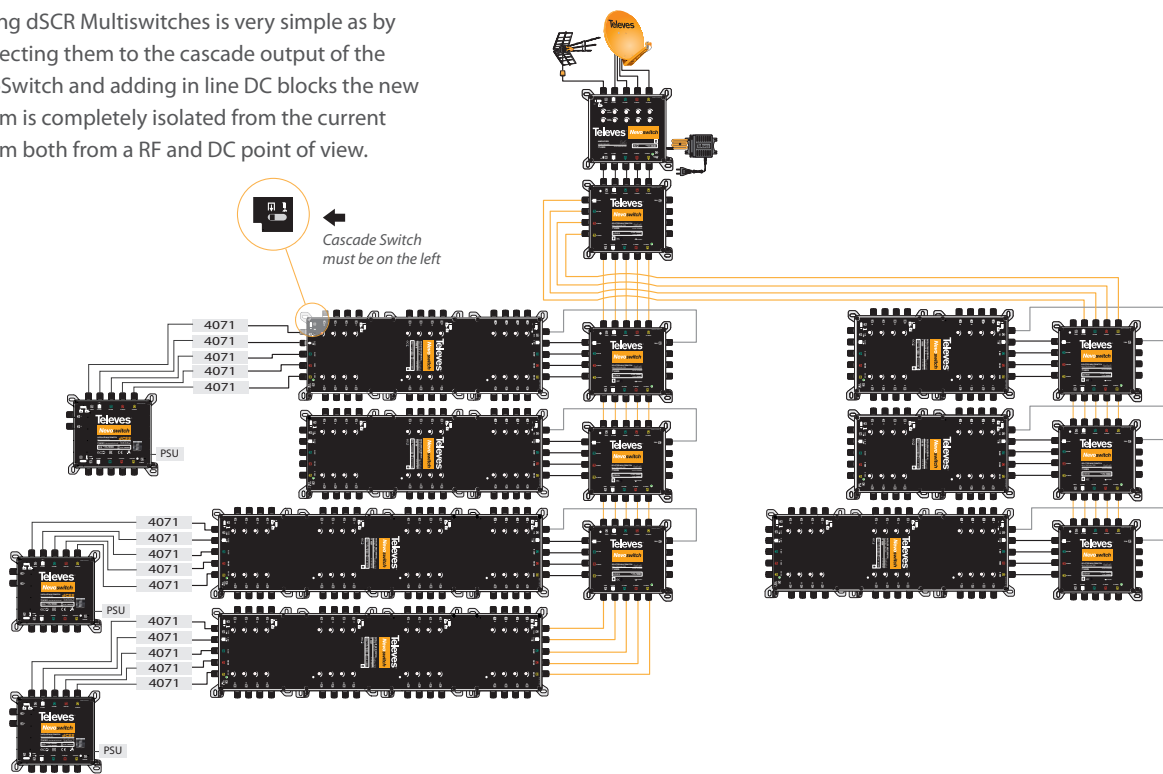
CASE 2:
Stand alone NevoSwitch

If all the points fed by the multiswitch are going to be dSCR/Sky Q then the multiswitch can be replaced by the new dSCR multiswitch. But you could also choose to leave the existing multiswitch in place and add the dSCR multiswitch to the cascade outputs of the NevoSwitch. In the case of 9, 13 or 17 you will necessarily have to leave the multiswitch in place in order to access the 2nd, 3rd or 4th satellite.
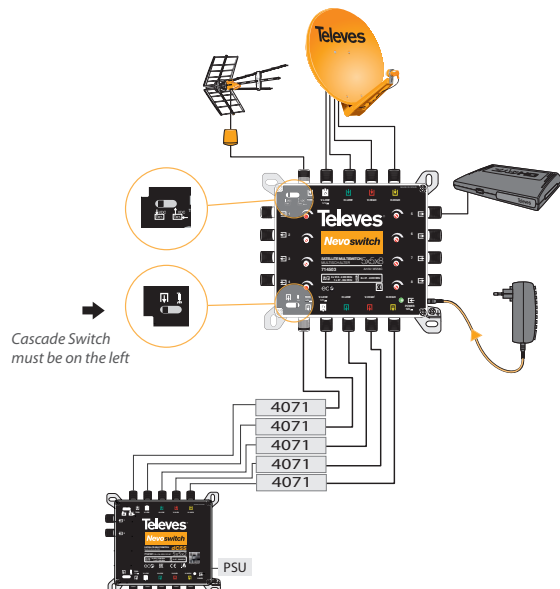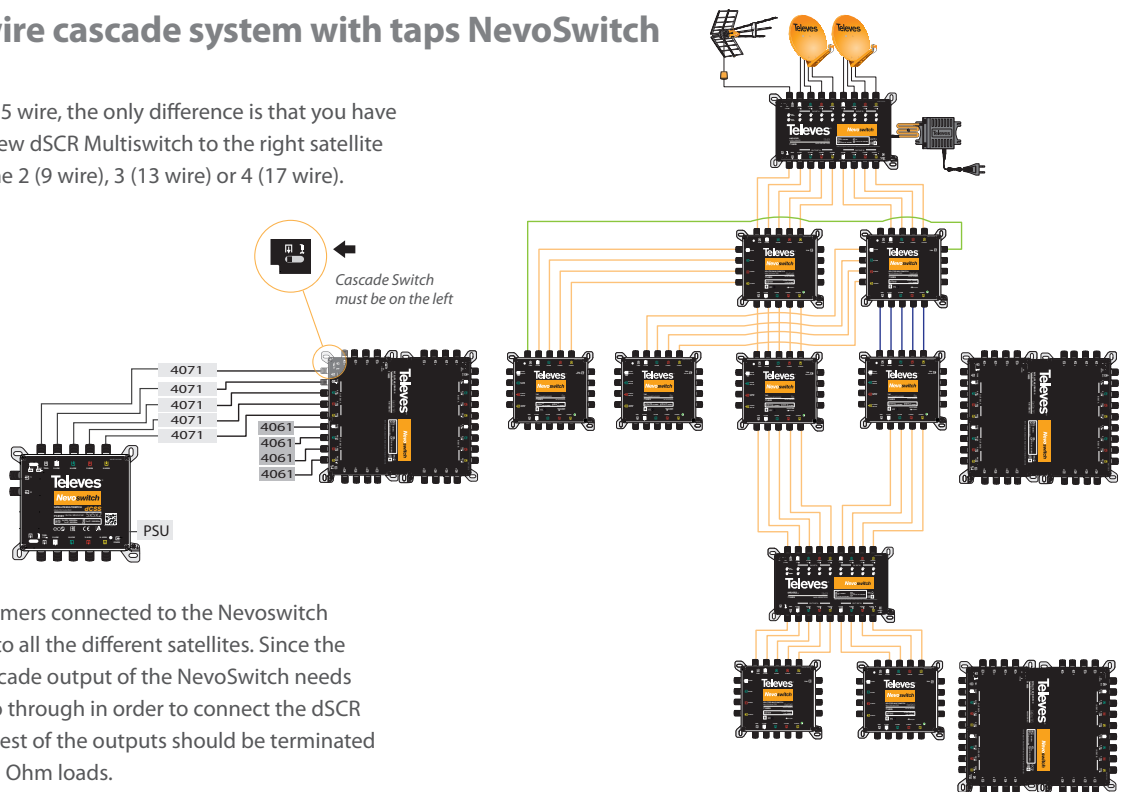

Cascade Switch must be on the left

CASE 3:
9/13/17 wire cascade system with taps NevoSwitch

Same case as for 5 wire, the only difference is that you have to connect the new dSCR Multiswitch to the right satellite outputs out of the 2 (9 wire), 3 (13 wire) or 4 (17 wire).

Cascade Switch must be on the left

4071
4071
4071
4071
4071

4061
4061
4061
4061

PSU

Only those customers connected to the Nevoswitch will have access to all the different satellites. Since the switch at the cascade output of the NevoSwitch needs to be changed to through in order to connect the dSCR Multiswitch the rest of the outputs should be terminated with DC block 75 Ohm loads.

CASE 4:
5 wire cascade NevoSwitch

In this you will need to "break" in to the system by adding a tap or splitter (preferably a tap) but trying to interfere as least as possible with the existing system. Care should be taken before adding any new element to the existing system as the losses added by the tap or splitter might be enough to make existing system fail. We recommend a survey is carried out before deciding what the changes required will be.

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4071
4071

PSU
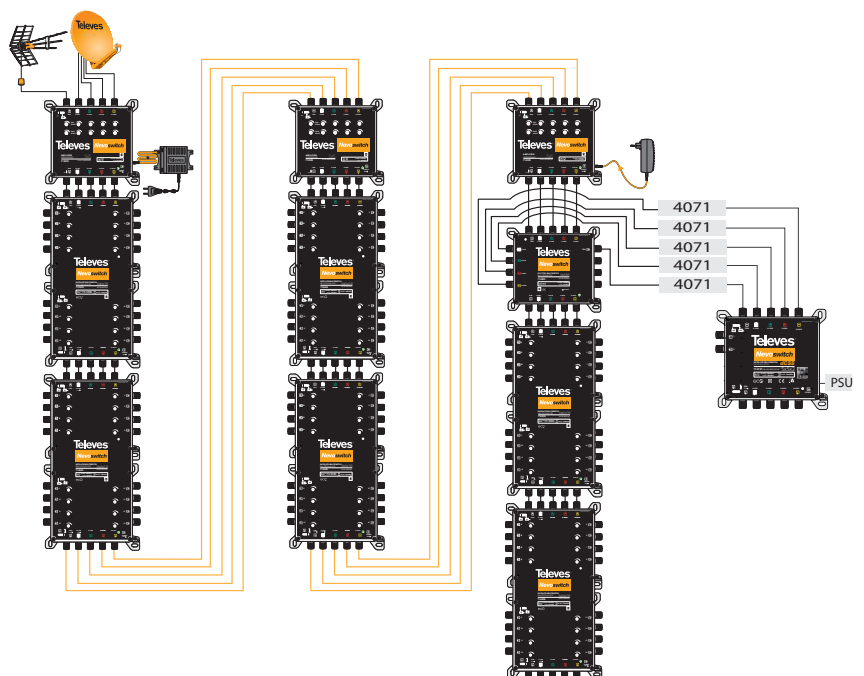
FIBRE OPTIC

RANGE FOR **IRS SYSTEMS**

TECHNOLOGICAL SOLUTIONS
FOR ANY TYPE OF INSTALLATION
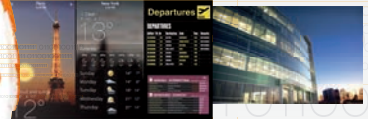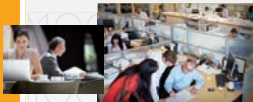
MAKE IT POSSIBLE

WITH THE POWER OF LIGHT

FIBRE OPTIC RANGE FOR IRS SYSTEMS

RECEPTION: OPTICAL LNBs AND ODU KITS

Optical LNBs stack both horizontal and vertical polarities into a single IF frequency, with a high average gain of 72 dB and a low noise figure of 0.5 dB.

ODU kits stack these 4 polarities and combine Freeview plus DAB/FM radio signals into a single fibre optic feed. They feature two optical outputs with a power signal level from 6 to 8 dBm.

REF.	DESCRIPTION		
2353	Optical LNB SAT only - 34 PON - ˝FC/PC˝ Connectors	G	1
235310	Optical LNB SAT only - 64 PON - ˝FC/PC˝ Connectors	G	1
236801	RF/Optical Converter ODU32 ˝F˝-˝N˝-˝FC/PC˝: DAB/UHF-SAT + Offset LNB + AC/DC Adapter + Interconnection Accessories		1

MDUs

Located at each of the end points of an IRS Fibre Optic distribution network, these MDUs conver the FO signal back to RF.

Ref. 236903 works as a QUAD LNB and Ref. 237002 works as a Quattro LNB and converts Freeview, DAB and FM back to RF as well.

REF.	DESCRIPTION	
236903	Quad Terrestrial MDU Version III	1
237003	Quattro Terrestrial MDU Version III	1

▲ 236903   ▲ 237003

SPLITTERS

Range of wall mounted optical splitters, available in 2,3,4 and 8 ways.
Comprise FC/PC connectors.

REF.	DESCRIPTION		
235701	Optical Splitter 1310/1550nm ˝FC/PC˝	2W 4dB	1
235801		3W 5.5dB	1
235901		4W 7dB	1
236001		8W 10.1dB	1

▲ 235701   ▲ 235901

FIBRE OPTIC LEADS

Pre-connectorized LSFH *(Low Smoke and Halogen Free)* patch cords, made of bending loss resistant single-mode optical fibre (ITU G.657-A2 compliant). They offer a high transmission speed and low attenuation and a minimum bending radius of 30 mm.

REF.	DESCRIPTION	m	📦
2361		3	1
236101		5	1
236102		10	1
236103		20	1
236104	F.O. Patch Cord Single-mode LSFH	30	1
236105	Pre-terminated "FC/PC"	40	1
236106		50	1
236107		75	1
236108		100	1
236109		200	1

▶ **More information of our FO range in our "Fibre Optic Range 2016" brochure.**

F.O. CABLES

REF.	DESCRIPTION	🔧	📦
	Multi-Fibre Cables (Fibre's Tight Buffer Ø 250µm)		
231612	Multi-fibre Cable 24 Single-mode Fibres LSFH (ITU-T G657A2)	O	By m
231712	Multi-fibre Cable 48 Single-mode Fibres LSFH (ITU-T G657A2)	O	By m
	Multi-Fibre Cables (Fibre's Tight Buffer Ø 900µm)		
231802	Multi-fibre Cable 12 Single-mode Fibres LSFH (ITU-T G657A2)	O	By m
231603	Multi-fibre Cable 24 Single-mode Fibres LSFH (ITU-T G657A2)	O	By m
231702	Multi-fibre Cable 48 Single-mode Fibres LSFH (ITU-T G657A2)	O	By m
	2 Fibre Cables (Fibre's Tight Buffer Ø 900µm)		
231901	2 Fibre Cable Single-mode Indoor LSFH (ITU-T G657A2)	O	300m
231902		O	750m
232001	2 Fibre Cable Single-mode Outdoor LSFH (ITU-T G657A2)	B	200m
232002		B	500m

▲ 48 fibres 231712
▲ 24 fibres 231612
▲ 48 fibres 231702
▲ 24 fibres 231603
▲ 12 fibres 231802
▲ 2 fibres - Indoor 231901 / 231902
▲ 2 fibres - Outdoor 232001 / 232002

BREAKOUT SPLICE BOXES

The new breakout splice boxes can be used as a fibre interconnection or termination point. Its design allows it to be used to house either fibre cable or a 2 or 4 way fibre splitter.

It is possible to attach it to a wall with screws, to fit it inside a pattress box or it could also be attached to a DIN rail.

Ref.	Description	Fibres	Connectors	
231502	Breakout Splice Box	2 or 4	2xSC/APC F Back to Back	
231520	Breakout Splice Box	2	SC/APC F Back to Back	+ 15m of TWIN fibre spliced one end
231521	Breakout Splice Box	2	SC/APC F Back to Back	+ 25m of TWIN fibre spliced one end
231522	Breakout Splice Box	2	SC/APC F Back to Back	+ 40m of TWIN fibre spliced one end
231523	Breakout Splice Box	2	SC/APC F Back to Back	+ 55m of TWIN fibre spliced one end
231524	Breakout Splice Box	2	SC/APC F Back to Back	+ 70m of TWIN fibre spliced one end
231525	Breakout Splice Box	2	SC/APC F Back to Back	+ 85m of TWIN fibre spliced one end
231526	Breakout Splice Box	2	SC/APC F Back to Back	+ 100m of TWIN fibre spliced one end
231501	Breakout Splice Box	4	SC/APC F Back to Back	

▲ 231526

FIBRE OPTIC RANGE FOR IRS SYSTEMS

BREAKOUT SPLICE ENCLOSURES AND HANDHELD SPLICER

BREAKOUT SPLICE ENCLOSURES

Ref.	Description	Up to	Dimensions
231310	Breakout Splice Enclosure	8 fibres	203x106x30 mm
231301	Breakout Splice Enclosure	12 fibres	153x264x67 mm
231302	Breakout Splice Enclosure	24 fibres	206x300x110 mm
233002	Breakout Splice Enclosure	48 fibres	370x350x95 mm

▲ 231310   ▲ 231301   ▲ 231302   ▲ 233002

HANDHELD SPLICER

F.O. FUSION BY ELECTRIC ARC

Handheld fusion splicer capable of doing a **splice in 7 seconds**. Easy to carry thanks to its **small weight and dimensions**.

The product also includes a carry case with all the necessary accessories. Its **interface is very user friendly and intuitive**, all actions can be performed with just 3 buttons.

MAIN FEATURES

- It automatically detects problems before splicing:
  - It measure the angles in which the fibre has been cut.
  - It detects faults with the fibre (usually dust)
- It also **checks that splicing was correctly done** by pulling and measuring the optical losses.
- **Alignment of the fibre** for cladding.
- **Automatically clean** the electrodes.
- **It saves a log with information** of the splicing that can be exported to a different format.
- **Up to 60 splices** from a single full baterry charge.
- Li-Ion (**7.4 & 3000mAh**)
- The possibility of **re-charging battery whilst using the splicer.**

Fusion Splicer
Ref. 232130
Art.Nr: OHSG

FO precision stripper

▲ 232130

Ref.	Description
232130	F.O. Kit fusion handheld splicer

FIELD STRENGTH METERS

MOSAIQ6

THE POWER
OF USER EXPERIENCE

UP TO **6 SCREENS** IN ONE

- HIGH DEFINITION 8'' SCREEN
- SERVICE BITRATE ANALYSER
- ALL RELEVANT MEASUREMENTS IN ONE DISPLAY
- PROFESSIONAL SPECTRUM ANALYSER IN REAL TIME
- ECHO REPRESENTATION FOR SFN NETWORK ANALYSIS
- CONSTELLATION DIAGRAM TO RECOGNISE THE TYPE OF INTERFERENCE

AVAILABLE
FROM **Q1 2017**

FIELD STRENGTH METERS

H30FLEX

Highly customizable with software options for different world digital TV standards **(DVB-T/T2-S/S2-C)**

Great measurements performance, including a digital real-time spectrum analyzer

REF.	DESCRIPTION
RANGE (with Dolby):	
593301	H30FLEX with DVB-S/S2 and DVB-T
593302	H30FLEX with DVB-S/S2 and DVB-T/T2
UPGRADES ˝	
593231	DVB-T
593232	DVB-T/T2
593233	DVB-C
593234	dCSS (SCR)

AN AFFORDABLE, HIGH QUALITY MEASUREMENT EQUIPMENT:

▍ Fast responsive and easy to operate.

▍ High contrast screen sun readable.

▍ Fast & Automatic channel auto-scan with parameters autodetection (system scan)

FIRST IN THE WORLD WITH DIGITAL PROCESSING | 2,2 GHZ | SPECTRUM ANALYZER | CONSTELLATION DISPLAY | CLOUD SW UPDATES | HD

H45

This milestone sets a before and after in the certification of HDTV services in commercial and residential installations, for the first time the technicians had at their disposal the mathematical precision of sophisticated laboratory equipment in a portable format.

Unrivaled speed and mathematical precision in all your measurements...

▍ **Long life battery**: over 4 hours duration.

▍ **Comfortable and fast**: improving productivity during the installation.

▍ **Interfaces**: integral management of all the signals.

▍ **High visibility**: you will see it clearer even outdoors.

REF.	DESCRIPTION
599020	H45 COMPACT DVBT/C/S/S2, MPEG 4, DOLBY, CI
599021	H45 COMPACT DVBT2/DVBT/C/S/S2, MPEG 4, DOLBY, CI
599022	H45 COMPACT DVBT/C/S/S2, MPEG 4, DOLBY, CI and FO
599024	H45 COMPACT DVBT2/DVBT/C/S/S2, MPEG 4, DOLBY, CI and FO

FIRST IN THE WORLD WITH DIGITAL PROCESSING | DOLBY DIGITAL PLUS | F.O. | H.264 MPEG-4/AVC

5

CAI BENCHMARK COAXIAL CABLE

COAXIAL CABLE AND ACCESSORIES

THE PERFECT COMBINATION FOR
INTERFERENCE PREVENTION
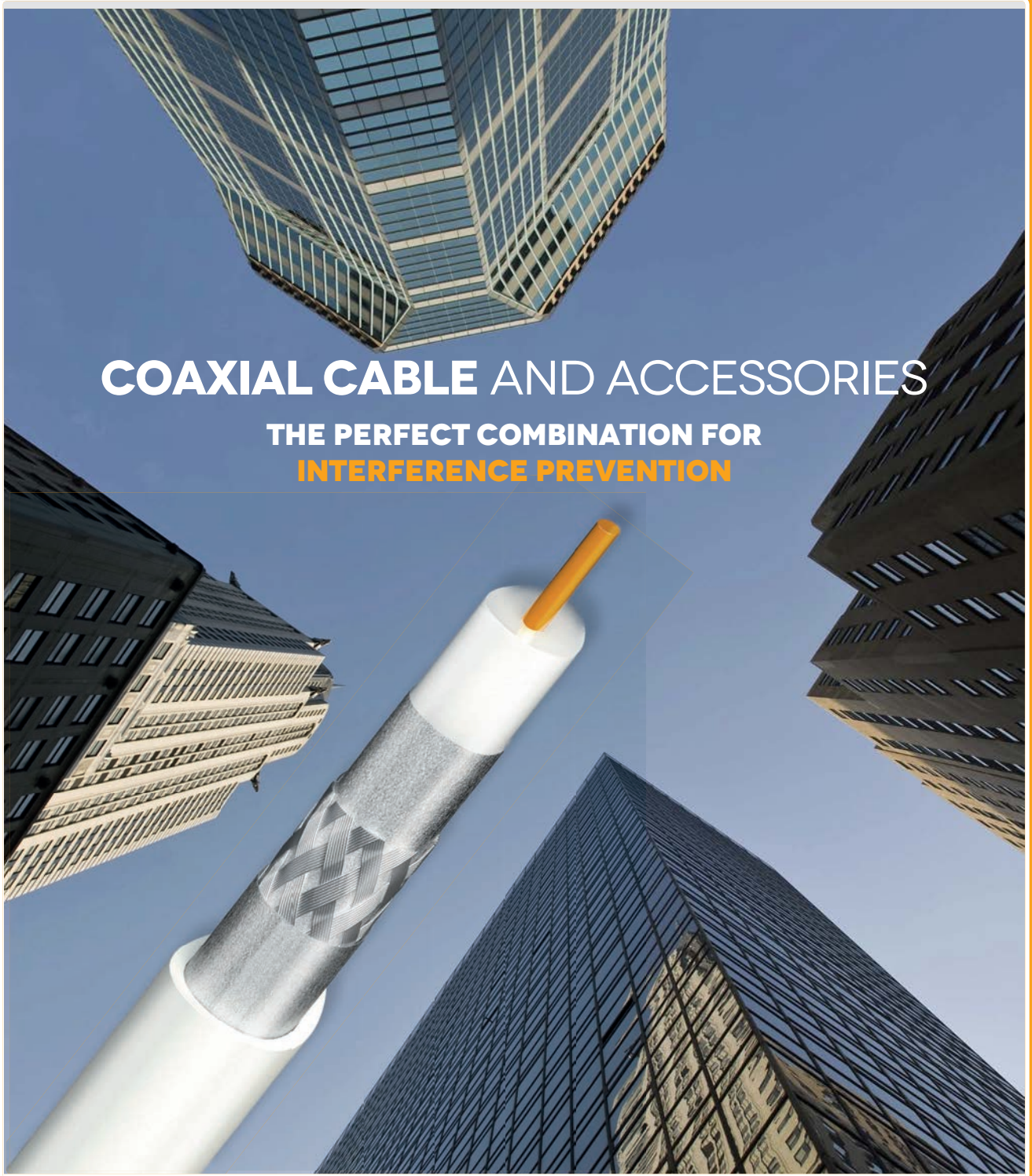
CAI BENCHMARK COAXIAL CABLE

CAI TYPE 100 AND CAI TYPE RG6−SDU

LTE READY

CABLE 100% CERTIFICIED

Class A+ coaxial cable, with improved screening attenuation to avoid interferences.

Fully tested in our in-house Cable Certification Center.

CAI TYPE 100

- Class A+.
- Improved screening attenuation to avoid interferences.
- Type 100 CAI approved cable.
- Fully tested in our in-house Cable Certification Center.

REF.	DESCRIPTION			
413705	Coaxial Cable SK110plus PVC EN 50117-2-4 Class A+ Triple Shielded TSH 18VAtC Ø 1.02/4.6/6.70mm	A+ CLASS / cai	W	100
413704			W	250
413707			B	250
413706			W	500

▲ 413704, 413705, 413706

Ø 1mm Ø 4.6mm Ø 6.7mm

▲ 413707

CAI TYPE RG6−SDU

- Class A.
- CAI RG6 Approved cable.
- Fully tested in our in-house Cable Certification Center.

2127	Coaxial Cable CXT-1 PVC EN 50117-2-4 Class A 17VAtC.A Ø 1.00/4.7/6.7mm	A CLASS / cai	W	100
212701			B	100
212702			B	250
212703			W	250
212704			W	500

▲ 2127, 212703, 212704

▲ 212701, 212702

References		413705	413704	413706	413707	2127	212701	212702	212703	212704
Type		SK110plus				CXT-1				
		CLASS A+				CLASS A				
Inner Conductor	Ø mm	1.02				1.00				
	Material	Copper				Copper Clad Steel				
	Res. Ohm/Km	22				<120				
Dielectric	Ø mm	4.6				4.7				
	Material	Foam Polyethylene				Foam Polyethylene				
Over Lapped Foil	Material	Aluminium + Polyester				Aluminium + Polyester				
Braid	Material	Tinned Copper				Aluminium				
	Coverage %	55				77				
	Res. Ohm/Km	10.5				<60				
Anti-migrating Film		Yes				No				
Petro-Jelly		No				No				
Outer sheath	Ø mm	6.7				6.7				
	Colour	W	W	W	B	W	B	B	W	W
	Material	PVC				PVC				
Minimum bending radius	mm	33.5				33				
Screening Attenuation @ 1GHz	dB	>95				>85				
Impedance	Ohm	75				75				
Velocity Ratio	%	84				82				
Packaging	m/drum	100	250	500	250	100	100	250	250	500
Attenuations										
Frequency (MHz)	50	0.05				0.05				
	200	0.09				0.09				
	500	0.14				0.15				
	800	0.18				0.17				
	1000 (dB/m)	0.21				0.23				
	1350	0.25				0.27				
	1750	0.28				0.32				
	2050	0.30				0.35				
	2300	0.32				0.37				

Screening attenuation

Televes SK100 Plus

CAI Type 100 Cable Specification

Frequency (MHz)

Screening attenuation

Televes CXT-1 Plus (dB)

CAI RG6 Specification (dB)

Frequency (MHz)
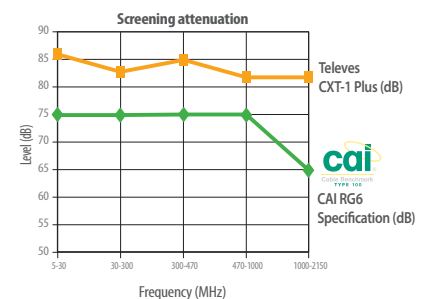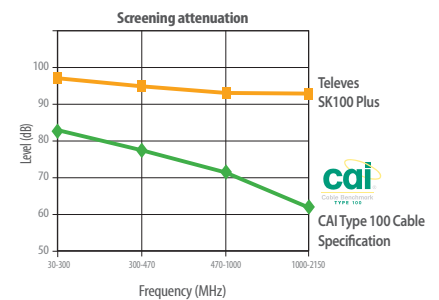
CONNECTORS

REF.	DESCRIPTION
"IEC" TYPE CONNECTORS	
4130	Coax Plug Male - Elbow - Fully Shielded
4131	Coax Plug Female - Elbow Connector - Fully Shielded
413210	Pro - IEC Male elbow connector - Fully Shielded Zamak - Class A
413310	Pro - IEC Female elbow connector - Fully Shielded Zamak - Class A
"F" TYPE CONNECTORS	
4176	Quick F Elbow Connector - Fully Shielded
413410	Pro - Push on F Elbow connector - Fully Shielded Zamak - Class A+
TYPE 100 CABLE	
4171	Threaded "F" connector for Type 100 Cable with O-ring
4104	Compression "F" connector for Type 100 Cable
TYPE 165 CABLE	
9349	Threaded "F" connector for Type 165 Cable
4106	Compression "F" connector for Type 165 Cable
TYPE 0.65 CABLE	
3808	Threaded "F" connector for Type 0.65 Cable

▲ 4130   ▲ 4131   ▲ 4176

▲ 413210   ▲ 413310   ▲ 413410

▲ 3808   ▲ 4171   ▲ 4104   ▲ 9349   ▲ 4106   ▲ 382101   ▲ 4058

ACCESSORIES

REF.	DESCRIPTION
ACCESSORIES	
382101	Quick Male - Male F
4173	F Coupler back to back (F female)
4061	75 Ohm F Load DC-Block
4058	75 Ohm load
4071	DC Block - F
TOOLS	
2163	Compression Tool for "F" Connectors (Refs. 4104, 4105 & 410701)
216310	Insertion Tool for "F" Connectors (Refs. 4104, 4105 & 410701)
2145	Rotatory Coaxial Cable Stripper (T100)
2162	Coaxial Cable Stripper (T100)
216101	H-11 wrench for "F" Connectors

▲ 2163   ▲ 216310

▲ 2162   ▲ 2145

▲ 216101

CMP 06001132 FI 032016

Televes®

IRS

PRODUCT GUIDE **2016 / 2017**