johansson®
the original

Catalogue

MDU
Collective use

SFU
Individual use

UNITRON GROUP

Edition 01/02/2010

Mission

UnitronGroup develops, manufactures and sells electronic telecommunication and multimedia accessories worldwide.
Our flexible team offers you for every evolution a custom-made solution.

UnitronGroup is an international group of companies, its main office is Unitron Nv Belgium and there are production and R&D plants in Belgium, the Czech Republic (Deltronic s.r.o. and Vesla s.r.o.) and in China (Unitron Asia Pacific Ltd.).

Develop:

UnitronGroup is the market leader in the development and manufacturing of electronic accessories and appliances for the digitalisation of audio-video and telecommunication systems (Digital Terrestrial Television, Digital Satellite Television and Digital CableTelevision) for SFU (single family units) and MDU (multi-dwelling units).

Sell:

Our standard products are sold through a distributors' network. Their brand name is "Johansson" but they are also sold under "private label".

High-technological RF and IP products and projects are delivered OEM to international industrial operators and partners.

Manufacture:

UnitronGroup manufactures over 700 different "Johansson" and "private label" products in its production plants "Vesla" and "Deltronic" in the Czech Republic and in its production plant "Unitron Asia Pacific" in China.

UNITRON GROUP

Contents

All specifications are subject to change without notice.

Profiler
Programmable filter amplifier

This **PROGRAMMABLE MULTI CHANNEL** headend technology offers **amplification**, filtering and **equalization** of analogue and digital signals in **MATV** installations.

New! pg. 28-29

The analogue terrestrial technology is being replaced by digital terrestrial technology (DTT). The analogue switch off (ASO) creates new opportunities for DTT offering many more TV channels in the terrestrial bandwidth. The free space will also be used for data communication.

We developed a wide range of high-tech programmable filter amplifiers called „Profiler".
These "Profiler" are the ideal solution as headend for collective coaxial TV distribution.
It offers flexibility for signal and channel management and avoids interferences.
This makes it possible to distribute and manage analogue and digital terrestrial and satellite signals in buildings compatible with actual and future channels or frequencies.

[THE PRODUCTS]

- Ref. 6600 Profiler: 10 UHF clusters
- Ref. 6601 Profiler Lite 10: 10 UHF clusters
- Ref. 6606 Profiler Lite 8: 8 UHF clusters
- Ref. 6607 Profiler Lite 9 : 9 UHF clusters
- Ref. 6610 Profino: 1 BIII + 5 UHF clusters
- Ref. 6611 Profino PLUS: 6 UHF clusters
- Ref. 6602 Profiler Sat: 10 UHF clusters & SAT
- Ref. 6605 Profiler Sat Plus:
  10 UHF clusters & SAT / 2 out
- Ref. 6620 Profiler PLUS: 10 UHF clusters/ 2 out
- Ref. 6621 Profiler PLUS SAT:
  10 UHF clusters & SAT / 2 out

DT Digital Terrestrial

Equalizers
Programmable filter equalizer

pg. 34-35

The switchover from analog to digital television leads to update installations with new frequencies, clusters and programs. These new requirements demand flexible configuration of TV signals.

We developed a wide range of high-tech programmable filters "Equalizer".
These 'Equalizers' are the ideal solution as headend filter combined with (existing) headend amplifiers for collective coaxial TV distribution.
It offers flexibility for signal and channel management and avoids interferences.
This means active filtering and accurate equalization of analog and digital channels before amplification. This unique product anticipates changes on digital frequency plans.

[THE PRODUCTS]

- Ref. 6503: 6 UHF clusters
- Ref. 6504: 10 UHF clusters
- Ref. 6505: 1 VHF + 9 x UHF clusters

Digital Terrestrial

Patent Pending

Super Profiler

Super Selective Programmable filter, amplifier

This PROGRAMMABLE MULTI CHANNEL headend technology offers amplification, filtering and equalization of analogue and digital signals in MATV installations. In addition it enables super selective filtering and conversion of channels.

The analogue terrestrial technology is being replaced by digital terrestrial technology (DTT). The analogue switch off (ASO) creates new opportunities for DTT offering many more TV channels in the terrestrial bandwidth. The free space will also be used for data communication.

We added to our high-tech programmable filter amplifiers called „Profiler" 2 super selective filters.
These "Super Profiler" are the ideal solution as headend for collective coaxial TV installations in order to distribute adjacent unequal channels or channels disrupted by very close interferences.

These two super selective single channel filters can be used as channel converter to manage your frequency plan.

Via our GUI, one can easy program, configure and manage signals and channels.

[THE PRODUCTS]

- Ref. 6630: 2 super selective single channel filters/converters
  8 UHF clusters
- Ref. 6631: 2 super selective single channel filters/converters
  8 UHF clusters + SAT

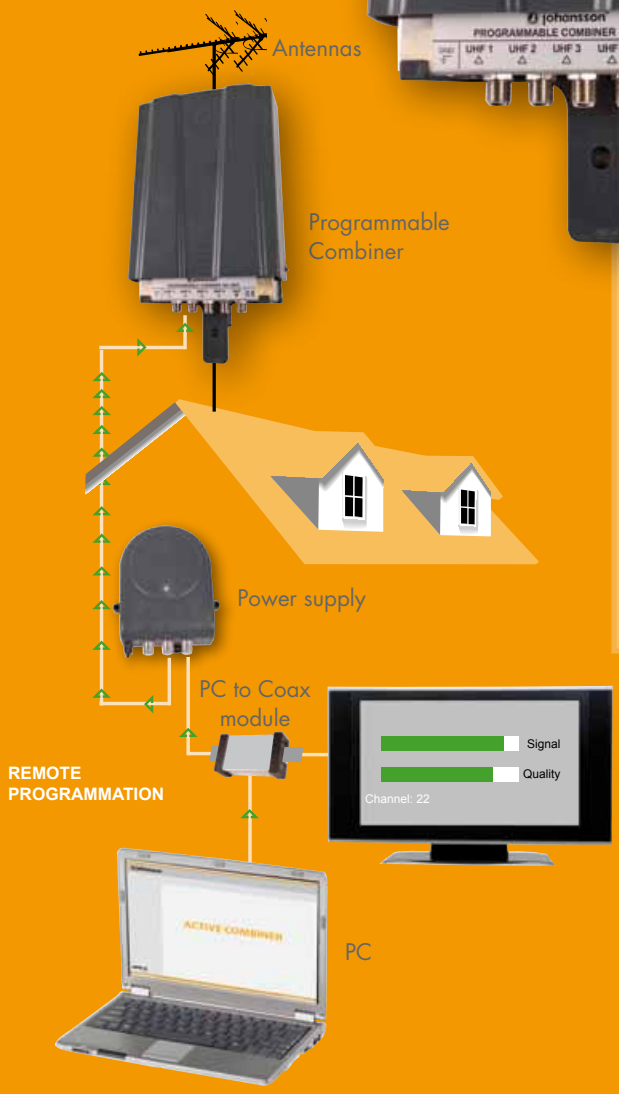
Digital Terrestrial

Active Combiner

Programmable combiner filter amplifier

Patent Pending

New! pg. 64-65



Outdoor programmable combiner filter amplifier for individual installations.
Indoor remote configuration and management of terrestrial signals and channels through coaxial cable.

Our active combiner makes it possible to receive and distribute signals in individual coaxial installations.
The hardware device is mounted outdoor near the antenna.
Indoor, with our GUI, one can easy program, configure and manage signals and channels near the TV.

The active combiner is suitable for reception of different groups of channels from different transmitters, especially in border zones.

[THE PRODUCTS]

- Ref. 6550A: Diplexer 2 inputs / 1 UHF cluster + bypass
- Ref. 6555A: Diplexer 2 inputs / 2 UHF clusters
- Ref. 6556A: Triplexer 3 inputs / 4 UHF clusters
- Ref. 6557A: Quadruplexer 4 inputs / 6 UHF clusters

- Ref. 6554: PC to coax module (optional)

Digital Terrestrial

ProStreamer (IP) ProQuad (transmodulator)

Our Programmable **Multi Channel** Headend Technology offers digital channel processing in buildings via **coaxial** and **Ethernet** cabling.

High performance digital encoders offer now HD content in DVB-S(2) and DVB-T(2). There is a need for additional bandwidth because the same content has to be broadcast in SD and HD.

High compression technologies (MPEG-2 and MPEG-4) open a new market for the use of DVB-S to DVB-T and DVB-C transmodulators and IP streamers for collective coaxial or IPTV distribution .

The ProStreamer and the ProQuad enable to receive and distribute SD and HD signals in collective systems.

ProQuad

Programmable Quad DVB-S2(S) to DVB-T Transmodulator

The ProQuad technology enables to distribute and manage satellite TV through (existing) coaxial cables on VHF-UHF frequencies.
Via our GUI you can easy program, configure and manage input and output channels.

New application for collectivities:

- This module transmodulates four DVB-S2(S) transponders into four COFDM DVB-T multiplexes.
- These four multiplexes can be selected from the four digital satellite transponder bands (HH,HL, VH,VL)
- Up to 32 free selectable Radio and TV channels are re-multiplexed over the four DVB-T VHF-UHF adjacent channels.
- The Common Interface (CI) with associated CAM can decode up to 12 encrypted (Pay TV) channels

[THE PRODUCTS]

- Ref. 5103S : DVB-S2(S) CAM / 1 Multiplex (ProSingle)
- Ref. 5103T : DVB-S2(S) CAM / 2 Multiplexes (ProTwin)
- Ref. 5103Q : DVB-S2(S) CAM / 4 Multiplexes (ProQuad)
- Ref. 5130 : Modulator 4 Audio / Video

32 programs (FTA) per module Quad / Up to12 encrypted using multiservices CAM

New!
pg. 20-21

- *288 channels per Rack*
- *32 programs per Module*
- *4 SAT tuners / 4 transponders*
- *4 multiplexes per Module*
- *up to12 decoded programs per Module*

ProStreamer

Programmable IP-Streamer

Quad DVB-S2(S), DVB-T, A/V

- *144 channels per Rack*
- *4 tuners per Module*
- *16 programs per Module*
- *4 tuners - 4 SAT transponders*
- *4 tuners - 4 DTT multiplexes*

New!
pg. 14-19

The ProStreamer technology is a total new interactive way to distribute and manage satellite, terrestrial TV and Audio Video in buildings throughout Ethernet cables. (LAN)

Via our GUI, one can easy program, configure and manage signals and channels.

This solution offers you a lot of advantages:

- no signal degradation between the IP-streamer and the television
- interactivity guaranteed
  (Electronic Program Guide, Video/Music On Demand, …)
- customized layout on every television screen
- maintenance-free and cost-effective solution
- television everywhere and on many devices: TV, computer, set top box, …
- surfing on Internet and watching TV are possible from the same device
- …

[THE PRODUCTS]

- Ref. 5000 : DVB-S
- Ref. 5001 : DVB-S CAM
- Ref. 5002 : DVB-S2(S)
- Ref. 5003 : DVB-S2(S) CAM
- Ref. 5010 : DVB-T
- Ref. 5011 : DVB-T CAM
- Ref. 5030 : Audio / Video (4 inputs)

IP streamers:
16 programs (FTA) per module
Up to12 encrypted + 4 FTA per module with PCMCIA CAM slot using multiservices CAM

One Liner Technology

Distribution of satellite signals to multi users over one single coaxial cable

New! pg. 54-57

Installation in an apartment, or single family home, using multiswitches, means that each tuner needs 1 cable from the multiswitch.
It requires complex cabling to distribute the signals to the receiver, especially for PVR receiver.
Our OLT "channel stacking" and "band stacking" technologies are the answer for Multisatellite reception in Multiroom applications.

Band Stacking technology
Double IF bands is transmitted through one coaxial cable up to 3.55 GHz.
You can select two bands freely.

It enables to upgrade and extend easily an installation when replacing a standard receiver by PVR OLT receiver or adding a new OLT receiver in the apartment (re)using only one cable.

"Channel" Stacking technology
Channels called "user band" (one per user) are transmitted through one coaxial cable up to 2.15 GHz standard IF band.
You can select freely all the transponders from different satellites.

[THE PRODUCTS]

- Ref. 9710: Transponder converter Unit for Quattro LNB
- Ref. 9711: Transponder converter Unit for Quad LNB
- Ref. 9712: Transponder converter Unit for MDU

OLT™
One-Liner Technology

Multi Band Converter

pg. 58-59

Multi Band Converter (or Stacker / Destacker) enables to upgrade the installation with a TWIN (or quad) LNBF to be connected with a dual tuner input digital receiver with recorder (PVR) on an existing cable

Record one program while watching another one

- the Converter (Stacker) enables 2 IF feeds to be combined onto a single coaxial cable and the Customer Device (Destacker) separates the 2 feeds to be used with the PVR
- DiSEqC function enables to receive signal from 2 satellites (e.g. Astra / Hot Bird)
- wide band 5-2150 MHz to combine terrestrial signals (FM, DAB, TV)
- no additional coax cable needed between dish and receiver
- no need to replace the existing cable
- transparent system
- no degradation of picture
- HD compliant

[THE PRODUCTS SFU]

- Ref. 9640KIT: Multi Band Converter
- Ref. 9641KIT: 4 Output Single Polarity Multi Band Converter

[THE PRODUCTS MDU]

- Ref. 9642: Stacker
- Ref. 9643: Destacker – 2 Output

Multi-Room Amplifiers

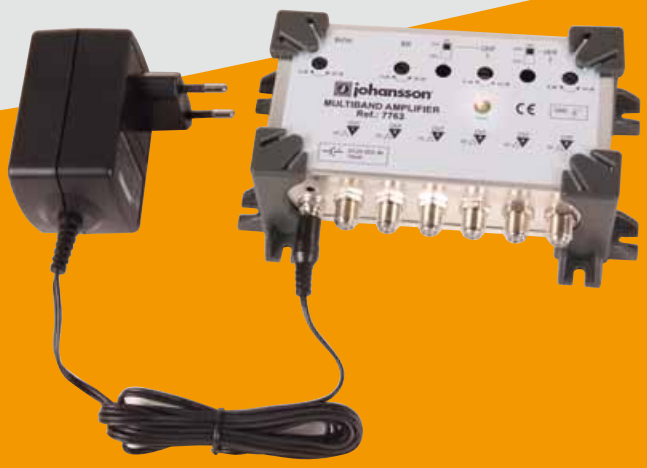
New!
pg. 80-81

- 1 or 6 outputs
- Powered from power adapter or from any output

[THE PRODUCTS]

- Ref. 7760A: 3 input / 1 output
- Ref. 7761A: 3 input / 6 outputs
- Ref. 7762A: 4 input / 1 output
- Ref. 7763A: 4 input / 6 outputs

Digital Terrestrial



DiSEqC™ switches

New!
pg. 82-83

- 2 and 4 inputs
- zamak diecast housing
- indoor / outdoor use

[THE PRODUCTS]

- Ref. 9232: 2 inputs
- Ref. 9234: 4 inputs

Preamplifier & power supply KIT

New!
pg. 76-77

- low noise preamplifier
- high selectivity UHF filter with built-in GSM trap

[FEATURES]

- low noise preamplifier
- 25 dB adjustable gain
- high selectivity UHF filter with built-in GSM trap
- zamak diecast housing
- power LED indicator
- FM / DAB bypass (Ref. 7433)

- high efficiency power supply
- 24 volt stabilized
- short circuit protected
- power LED indicator
- wall / DIN rail mounting

[THE PRODUCTS]

- Ref. KIT 7322/2434
- Ref. KIT 7433/2434

Digital Terrestrial

ProStreamer-IP

IP technology offers multiple and multimedia possibilities

The Johansson Prostreamer-IP family of products is designed to multicast on an IP network TV and Radio programs issued from satellite and terrestrial reception.

The IPTV streams can be viewed using an IP Set-top box, a TV set equipped with an IP interface or a software video player running on a personal computer.

Collective and individual use

The Prostreamer-IP headend is targeting all collective systems (MDU) like hotels, hospitals, residence, corporate, education… but also individual reception (SFU) can be implemented.

Multiple, multimedia possibilities

The integration of different applications is made possible thanks to the use of the IP technology. This makes it possible to watch TV and access Internet from the same place.

Infrastructure and use

The use of Ethernet cable is much more adequate for multimedia applications and networks in MDU compared to coax cables. In most infrastructures, Ethernet cable is now widely available. No need to equip the building with new coax cables.

ProStreamer-IP

new

Modular System Solution

The Johansson 19" modular streamer headend solution provides the flexibility to include as many streamers as necessary to broadcast up to 144 services (TV or Radio) per sub-rack.

The input loop-through allows to build a tap line by using F plug bridges. Only the first module needs to be fed with DVB signal. The single voltage provided by the 19" power supply module can be cascaded the same way using DC plug bridges.

The IP output ports of the headend (one per streamer) feed the IP broadband network.

Specifications:

- Full polarity satellite or 4x terrestrial reception or 4x baseband MPEG streams with loop-through.
- Supports transport stream MPEG-2 SD/HD and MPEG-4 SD/HD.
- 10/100 Mbps electrical Ethernet output.
- Streaming of up to 16 single program transport streams (SPTS) over IP.
- Advanced transport stream processing.
- Management via separate USB port through GUI on PC.
- Front led indication for status and alarms.
- 19"Rack system (9x modules + 1x power supply).
- Easy cascadable with DC plug bridge and F plug bridge provided.
- +15VDC single supply voltage.
- Optional descrambling of up to 12 channels per CAM slot.

IP streamer DVB-S

Reference		5000 (S) 5002 (S2)	5001 (S) 5003 (S2)
		DVB-S/S2	
Input	Interface	4 x QPSK / 8PSK	
Output	Standard Protocols Capacity	IEEE 802.3 10/100 Base-T Multicast IP/UDP UP to 16 simultaneous streams (up to 100 Mbps)	
Connectors	RF input with loop-through	8x female F	
	Power supply with loop-through	4x “banana” socket	
	Management	USB type-B	
	Ethernet output	RJ-45	
	PCMCIA CAM slot	no	yes
General	Supply voltage	+15 VDC	
	Consumption	0.6 A	0.8 A
	LED indications	4x lock status, Power, Alarm	
	Dimensions	5RU x 8TE x 195 mm	
Performance	Transport stream processing	de-multiplexing of up to 4 transponders PSI/SI parsing PID filtering/remapping capability regeneration of PAT/PMT tables EMM/ECM pass-through IP/UDP encapsulation of up to 16 MPEG streams	
Dimensions	5RU x 8TE x 195 mm		

IP streamer DVB-S

- 144 channels per Rack
- 16 programs per Module
- 4 tuners per Module
- 4 SAT transponders

new

DVB-S / S2 / CAM

- 4 RF Inputs for a Quattro LNB, making it possible to receive the 4 satellite bands at once (horizontal low, horizontal high, vertical low and vertical high)
- 4 active RF Loop-throughs for cascading to the next module
- Full flexible selection of band and polarity thanks to the built-in 4x4 matrix
- 4 tuners enable to independently demodulate 4 transponders (=MPTS)
- 4 RF bridges and 2 DC jumpers included

5000

5000 - ProStreamer IP DVB-S

DVB-S IP streamer module (FTA) 16 programs,
4 sat input, 4 tuner, 4 transponders

5001 - ProStreamer IP DVB-S CAM

DVB-S IP streamer module with PCMCIA CAM slot
16 programs (12 encoded, 4 FTA),
4 sat input, 4 tuner, 4 transponders

5001

5002 - ProStreamer IP DVB-S2

DVB-S2 IP streamer module (FTA) 16 programs,
4 sat input, 4 tuner, 4 transponders

5003 - ProStreamer IP DVB-S2 CAM

DVB-S2 IP streamer module with PCMCIA CAM slot
16 programs (12 encoded, 4 FTA),
4 sat input, 4 tuner, 4 transponders

IP streamer DVB-T - A/V

Reference		5010	5011	5030
		DVB-T		A / V
Input	Interface	4 x COFDM		4 x A / V (CVBS)
Output	Standard Protocols Capacity	IEEE 802.3 10/100 Base-T Multicast IP/UDP UP to 16 simultaneous streams (up to 100 Mbps)		4 streams
Connectors	RF input with loop-through	2x female F		Video: 4x CINCH Audio: 4x Jack Ø 3.5 mm Stereo
	Power supply with loop-through	4x “banana” socket		
	Management	USB type-B		
	Ethernet output	RJ-45		
	PCMCIA CAM slot	no	yes	-
General	Supply voltage	+15 VDC		
	Consumption	0.5 A	0.7 A	0.65 A
	LED indications	4x lock status, Power, Alarm		Power, Alarm
Performance	Transport stream processing	de-multiplexing of up to 4 transponders PSI/SI parsing PID filtering/remapping capability regeneration of PAT/PMT tables EMM/ECM pass-through IP/UDP encapsulation of up to 16 MPEG streams		encoding: Video: MPEG-2 Audio: MPEG-1 IP/UDP encapsulation of 4 MPEG streams
Dimensions	5RU x 8TE x 195 mm			

Power Supply

Reference	5050 / /5050 UK	
Input	Inlet	90 to 264 VAC
Output	“Banana” socket	+15 VDC / 10A
Dimensions	5RU x 12TE x 180 mm	

Accessories

Reference	5060	5061
	Sub-rack	Blank plate
Dimensions	19” x 5RU x 195 mm	5RU x 8TE

IP streamer DVB-T - A/V

- 144 channels per Rack
- 16 programs per Module
- 4 tuners per Module
  - 4 DTT multiplexes

DVB-T / CAM

- 1 RF input for Terrestrial reception
- 1 active RF loop-through for cascading to the next module
- 4 build-in tuners enable to independently de modulate 4 multiplexes (=MPTS)
- 1 RF bridge and 2 DC jumpers included

5010 - ProStreamer IP DVB-T

DVB-T IP streamer module 16 programs
1 RF,4 tuner, 4 multiplexes

5011- ProSreamer IP DVB-T CAM

DVB-T IP streamer module with PCMCIA CAM slot
16 programs (12 encoded, 4 FTA)

new

- 4 A/V inputs per Module

A/V

5030 - ProStreamer IP A/V
A/V IP streamer module 4 A/V inputs Stereo

- Delivered with 8 blank plates mounted

ProSingle - ProTwin - ProQuad

Reference	5103S - ProSingle	5103T - ProTwin	5103Q - ProQuad
SAT INPUT	**DVB-S2 / DVB-S**		
Nb of input	4 with 4 active loop-through (0 dB loss)		
Tuner	4 tuners (4 transponders)		
Frequency range	950-2150 MHz		
Level	-55 to -25 dBm		
Bandwidth	36 MHz		
Modulation	DVB-S2 : QPSK, 8PSK / DVB-S : QPSK		
DC remote power at RF input	13V/18V/22kHz		
TV OUTPUT	**DVB-T**		
Nb of output	1 with 1 loop-through (-1,5 dB loss)		
Frequency range	47-862 MHz		
Multiplexes	1	2 adjacent	4 adjacent
Channel bandwidth	7 MHz (VHF) / 8 MHz (UHF)		
Modulation	QPSK, 16-QAM, 64-QAM		
OFDM mode	2K		
Spectral inversion	on/off		
Output level	68 to 83 dBµV adjustable		
Common Interface C.I	1 slot for CAM module (to descramble up to 12 programs with multiservice CAM)		
Capacity	up to 8 programs	up to 16 programs	up to 32 programs
Connectors	RF : 10 x “F” female Management : USB type-B DC: “banana sockets”		
Power supply	15 VDC		
Consumption	1,5 A		
Dimensions	218 x 41 x 195 mm		

Power Supply

Reference	5050 / /5050 UK	
Input	Inlet	90 to 264 VAC
Output	“Banana” socket	+15 VDC / 10A
Dimensions	5RU x 12TE x 180 mm	

Accessories

Reference	5060	5061
	Sub-rack	Blank plate
Dimensions	19” x 5RU x 195 mm	5RU x 8TE

Transmodulators

new

- 288 channels per Rack
- 8/16/32 programs per Module
- 4 SAT tuners / 4 transponders
- 1/2/4 multiplexes per Module
- up to12 decoded channels DVB-S2(S) per Module

ProSingle - ProTwin - ProQuad

DVB-S2(S) → DVB-T Transmodulator Module

- 4 sat inputs with 4 sat active loop-through output
- 4 transponders over 4 tuner matrix
- Channel management from 4 multiplexed satellite channels
- Up to 8 re-multiplexed DVB-T channels 1 multiplex (=MPTS) ProSingle
- Up to 16 re-multiplexed DVB-T channels 2 multiplexes (=MPTS) ProTwin
- Up to 32 re-multiplexed DVB-T channels 4 multiplexes (=MPTS) ProQuad
- Up to 12 decoded DVB-S2(S) channels (with associated multiservice CAM)

- Delivered with 8 blank plates mounted

6600 - Profiler

Reference	6600 / 6600A / 6600 UK					
Inputs	B I-FM**	B III	VHF-UHF	UHF 1	UHF 2	UHF 3
Frequency range (MHz)	47-108**	174-240	47-240 + 470-862	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862
Configuration of clusters	-	-	-	2	8	0
				2	7	1
				2	5	3
Gain (dB)	35	40	40	55		
Attenuator (dB)	20	20	20	30		
General UHF level adjustment (dB)	-	-	-	+10 to -9		
Noise figure (dB)	5	5	5	6		
Max. input level (dBµV)	80	80	80	105		
Max. output level * (dBµV)	118	118	VHF: 118/UHF: 123	123		
Selectivity	-	-	-	10 dB / 10 MHz		
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10	>10
Selectable remote power***	-	-	-	24 V 100 mA in total	24 V	24 V
Test output (dB)	-30					
Data transfer	DSUB9 connector					
Power supply	230-240 V~ / 15 V DC / 35 VA					
Operating temperature (° C)	- 5 to + 50					
Dimensions (mm)	265 x 220 x 95					

* -54 dB/IM3 ** UK version = FM : 88-108 MHz *** UK version =12V *** 6600A = 12 V

6603 - Profiler VHF

Reference	6603					
Inputs	B I-FM	B III 1	B III 2	UHF 1	UHF 2	UHF 3
Frequency range (MHz)	47-108	174-240 7-28 (1 to 4 ch)	174-240 7-28 (1 to 4 ch)	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862
Configuration of clusters	-	-	-	2	6	0
				2	5	1
				2	3	3
Gain (dB)	35	40	40	55		
Attenuator (dB)	20	30	30	30		
General level adjustment (dB)	-	+10 to -9				
Noise figure (dB)	5	5	5	6		
Max. input level (dBµV)	80	80	80	105		
Max. output level * (dBµV)	115	105	105	123		
Selectivity	-	15 dB / 10 MHz	15 dB / 10 MHz	10 dB / 10 MHz		
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10	>10
Selectable 24 V remote power	-	100 mA in total				
Test output (dB)	-30					
Data transfer	DSUB9 connector					
Power supply	230-240 V~ / 15 V DC / 35 VA					
Operating temperature (° C)	- 5 to + 50					
Dimensions (mm)	265 x 220 x 95					

* -54 dB / IM3

Programmable amplifiers PROFILER

- Selective clusters for amplification of digital or analogue signals.
- Easy programming by using one rotary/push button viewed on 2 digits display and LEDs for each cluster and each input.
- "Copy" function in order to transfer all settings from one unit to another or by memory stick ref. 6604.
- Automatic leveling of signal or manual with 30 dB attenuator for accurate equalization.
- High UHF input levels up to 105 dBµV by switchable 20 dB input amplifier
- Unit can be locked by security code.

6600 - Profiler

- 6 inputs : BI-FM / BIII / VHF-UHF / 3 x UHF
  UK version : FM / BIII / VHF-UHF / 3 x UHF
- 10 UHF programmable clusters from 1 to 7 channels bandwidth.
- High gain 55 dB and High Power 123 dBµV
- 24 V remote power on UHF and VHF-UHF inputs
  12V for 6600UK and 6600A
- VHF-UHF split band amplifier with inter-stage attenuators
- -30 dB Test Output

6600

6603 - Profiler VHF

- 6 inputs : BI-FM / 2 x BIII / 3 x UHF
- 8 UHF programmable clusters from 1 to 7 channels bandwidth.
- 2 BIII programmable clusters from 1 to 4 channels bandwidth.
- High gain 55 dB and High Power 123 dBµV
- VHF-UHF split band amplifier with inter-stage attenuators
- 24 V remote power on BIII and UHF inputs
- -30 dB Test Output

6603

6601 - Profiler Lite10

Reference	6601 / 6601A / 6601 UK				
Inputs	B I-FM**	B III	UHF 1	UHF 2	UHF 3
Frequency range (MHz)	47-108**	174-240	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862
Configuration of clusters	-	-	2	8	0
			2	7	1
			2	5	3
Gain (dB)	35	40	45		
Attenuator (dB)	20	20	30		
General UHF level adjustment (dB)	-	-	+10 to -9		
Noise figure (dB)	5	5	6		
Max. input level (dBµV)	80	80	105		
Max. output level * (dBµV)	118	118	116		
Selectivity	-	-	10 dB / 10 MHz		
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10
Selectable remote power***	-	-	24 V 100 mA in total	24 V	24 V
Test output (dB)	-30				
Data transfer	DSUB9 connector				
Power supply	230-240 V~ / 15 V DC / 30 VA				
Operating temperature (° C)	- 5 to + 50				
Dimensions (mm)	265 x 220 x 95				

* -54 dB/IM3 ** UK version = FM : 88-108 MHz *** UK version =12V *** 6601A = 12 V

6606 - Profiler Lite 8
6607 - Profiler Lite 9

Reference	6607				
Inputs	B I-FM	B III	UHF 1	UHF 2	UHF 3
Frequency range (MHz)	47-108	174-240	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862
Configuration of clusters	-	-	2	7	0
			2	6	1
			2	4	3

Reference	6606			
Inputs	B I-FM	B III	UHF 1	UHF 2
Frequency range (MHz)	47-108	174-240	470-862 8-56 (1 to 7 channels/cluster)	470-862
Configuration of clusters	-	-	8	0
			7	1
			5	3
Gain (dB)	35	40	45	
Attenuator (dB)	20	20	30	
General UHF level adjustment (dB)	-	-	+10 to -9	
Noise figure (dB)	5	5	6	
Max. input level (dBµV)	80	80	105	
Max. output level * (dBµV)	118	118	116	
Selectivity	-	-	10 dB / 10 MHz	
Return loss - IN / OUT (dB)	>10	>10	>10	>10
Selectable remote power	-	-	24 V 100 mA in total	24 V
Test output (dB)	-30			
Data transfer	DSUB9 connector			
Power supply	230-240 V~ / 15 V DC / 30 VA			
Operating temperature (° C)	- 5 to + 50			
Dimensions (mm)	265 x 220 x 95			

* -54 dB/IM3

• 8 / 9 / 10
UHF clusters

6601 - Profiler Lite 10

- 5 inputs : BI-FM / BIII / 3 x UHF
  UK version : FM / BIII / 3 x UHF
- 10 UHF programmable clusters from 1 to 7 channels bandwidth.
- Gain 45 dB
- 24 V remote power on UHF inputs
  12V for 6601UK and 6601A
- VHF-UHF split band amplifier with inter-stage attenuators
- -30 dB Test Output

6601

6607 - Profiler Lite 9

new

- 5 inputs : BI-FM / BIII / 3 x UHF
- 9 UHF programmable clusters from 1 to 7 channels bandwidth.
- Gain 45 dB
- 24 V remote power on UHF inputs
- VHF-UHF split band amplifier with inter-stage attenuators
- -30 dB Test Output

6607

6606 - Profiler Lite 8

new

- 4 inputs : BI-FM / BIII / 2 x UHF
- 8 UHF programmable clusters from 1 to 7 channels bandwidth.
- Gain 45 dB
- 24 V remote power on UHF inputs
- VHF-UHF split band amplifier with inter-stage attenuators
- -30 dB Test Output

6606

6602 - Profiler SAT
6605 - Profiler SAT+

Reference	6602 - 6605						
Inputs	B I-FM	B III	VHF-UHF	UHF 1	UHF 2	UHF 3	SAT
Frequency range (MHz)	47-108	174-240	47-240 + 470-862	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862	950-2300
Configuration of clusters	-	-	-	2 2 2	8 7 5	0 1 3	-
Gain (dB) 6602	35	40	40	55			40
Gain (dB) 6605	30	35	35	50			40
Attenuator (dB)	20	20	20	30			20
Slope adjustment (dB)	-	-	-	-	-	-	9
General UHF level adjustment (dB)	-	-	-	+ 10 to - 9			-
Noise figure (dB)	5	5	5	6			8
Max. input level (dBµV)	80	80	80	105			90
Max. output level * (dBµV) 6602	118	118	V : 118 / U : 123	123			116
Max. output level * (dBµV) 6605	113	113	V : 113 / U : 118	118			116
Selectivity	-	-	-	10 dB / 10 MHz			SAT / TERR. > 30 dB TERR / SAT > 25 dB
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10	>10	>10
Selectable remote power	-	-	-	24 V 100 mA in total	24 V	24 V	0-13-18 V / 300 mA and 0-22 kHz
Outputs	1xTV-SAT / 1xTest -30 dB (6602) 1xTV / 1xTV-SAT / 1xTest -30 dB (6605)						
Data transfer	DSUB9 connector						
Power supply	230-240 V~ / 15 V DC / 45 VA						
Operating temperature (° C)	- 5 to + 50						
Dimensions (mm)	265 x 220 x 95						

* TERR. : -54 dB / IM3 SAT : -35 dB / IM3

• 1 output
Profiler SAT
• 2 outputs
Profiler SAT +

6602 - Profiler SAT

- 1 SAT input + 6 Terrestrial inputs :
  BI-FM / BIII / VHF-UHF / 3 x UHF
- 10 UHF programmable clusters from
  1 to 7 channels bandwidth.
- VHF-UHF-SAT split band amplifiers
  with inter-stage attenuators
- High gain and output power
- 0-13-18 V / 0-22 kHz remote power for LNB
- VHF-UHF split band amplifier with inter-stage
  attenuators
- -30 dB Test Output

6602

6605 - Profiler SAT+

- 2 outputs: TV / TV-SAT

new

6605

6610 - Profino
6611 - Profino PLUS

Reference	6610 / 6610 UK			
Inputs	B I-FM	B III / DAB	UHF 1	UHF 2
Frequency range (MHz)	47-108	174-240 7-28 (1 to 4 ch)	470-862 8-56 (1 to 7 channels/cluster)	470-862
Configuration of clusters	47-68 MHz (B I) 88-108 (FM) 47-108 (BI+FM)	1 channel or 4 channels	3	2
			4	1
			5	0
Reference	6611			
Inputs	FM	B III / DAB	UHF 1	UHF 2
Frequency range (MHz)	88-108	174-240	470-862 8-56 (1 to 7 channels/cluster)	470-862
Configuration of clusters	-	-	4	2
			5	1
			6	0
Gain (dB)	35	35	45	45
Attenuator (dB)	20	20 (6611) / 30 (6610)	30	30
Noise figure (dB)	5	5	6	6
Max. input level (dBµV)	80	80	105	105
Max. output level * (dBµV)	116	116	116	116
Selectivity	-	15 dB / 10 MHz	10 dB / 10 MHz	10 dB / 10 MHz
Return loss - IN / OUT (dB)	>10	>10	>10	>10
Selectable remote power 12-24 V (100 mA in total)	-	yes	yes	yes
Test output (dB)	-30			
Data transfer	DSUB9 connector			
Power supply	230-240 V~ / 12 V DC / 20 VA			
Operating temperature (° C)	- 5 to + 50			

* -54 dB / IM3

6604 - Memory Stick

Reference	6604
Memory capacity	16 positions
Memory	Non volatile / EEPROM
Connectors	DSUB9 Male / Female
Import data status	3 colours LED
Dimensions	78 x 41 x 25 mm

- 4 inputs
- UHF clusters can have 1 to 7 channels bandwidth
- B III/ DAB input with 1 or 4 channels bandwidth filter (6610)
- Unit can be locked by security code
- High selectivity filters
- Low noise and high gain split band amplifiers
- High UHF input levels up to 105 dBµV by switchable 20 dB input amplifier
- Attenuators with 1 dB step for accurate equalization
- Selectable remote power on B III and UHF inputs
- 12 - 24 V selectable remote power
- -30 dB Test Output

- 6 UHF clusters profino plus
- 5 UHF clusters profino

6610 - Profino

- 4 inputs : B I-FM , B III / DAB and 2 UHF
- 5 UHF clusters
  1 to 7 channels bandwidth
- B III/ DAB input with 1 or 4 channels bandwidth filter
- BI-FM input for B I or FM or B I + FM

6610

6611 - Profino PLUS

new

- 4 inputs : FM , BIII / DAB and 2 UHF
- 6 UHF clusters
  1 to 7 channels bandwidth

6611

6604 - Memory Stick

- for all Profiler and Profino range
- 16 positions

6604

6630 - Super Profiler
6631 - Super Profiler SAT

Reference	6630						6631
Inputs	FM	VHF	AUX (UHF)	UHF 1	UHF 2	UHF 3	SAT
Frequency range (MHz)	88-108	130-240 130-450 (S6-S39)	470-862	470-862 8 (1 super selective single ch.) 8-56 (1 to 7 channels/cluster)	470-862	470-862	950-2300
Configuration of clusters	-	-	-	0	10	0	-
				0	9	1	
				0	7	3	
				2	8	0	
				2	7	1	
				2	5	3	
Gain (dB)	30 / 35	35 / 40	25 / 30	50 / 55			40
Attenuator (dB)	20	20	20	30			20
Slope adjustment (dB)	-	-	-	-			9
General UHF level adjustment (dB)	-	-	+10 to -10				-
Noise figure (dB)	5	5	5	6			8
Max. input level (dBµV)	80	80	80	105			90
Max. output level * 2 / 1 Out (dBµV)	113 / 118	113 / 118	118 / 123	118 / 123			116
Selectivity	-	-	-	40 dB/10 MHz (2x super filters) 10 dB/10 MHz (8x cluster filters)			SAT/TERR. >30 dB TERR./SAT >25 dB
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10	>10	>10
Selectable remote power 12-24 V (100 mA in total)	-	-	-	yes	yes	yes	0-13-18V / 300 mA and 0-22 kHz
Outputs	TV / TV / Test -30 dB						TV / TV -SAT / Test -30 dB
Power supply	230-240 V~						
Operating temperature (° C)	- 5 to + 50						
Dimensions (mm)	320 x 184 x 57						

* TERR. : -54 dB / IM3 SAT: -35 dB / IM3

new

Programmable amplifiers SUPER PROFILER

- Amplification of (SAT) / FM / VHF / AUX and filtering - equalizing 10 clusters coming from 3 UHF configurable inputs
- 1 or 2 programmable outputs
- 2 super selective single channel filters/converters + 8 clusters from1 to 7 channels bandwidth
- Designed for both digital and analogue channels
- Easy programming by using one touch pad viewed on 3 digits display and LEDs for each cluster and input.
- Unit can be locked by security code.
- "Copy" function
- High selectivity filters
- Low noise figure and high gain split band amplifiers
- High power 123 dBµV
- High UHF input levels
- Automatic levelling of signal or manual with 30 dB attenuator with 1 dB step for accurate equalization
- 12 - 24 V selectable remote power for preamplifier
- 13 V – 18 V – 22 kHz selectable LNB remote power (SAT)
- -30 dB Test Output

- super selective filters
- easy programming by touchpad or PC
- automatic leveling
- 2 outputs

6630 - Super Profiler

- 6 inputs : FM / VHF / AUX / 3 x UHF
- 2 super selective single channel filters - converters
- 8 clusters from1 to 7 channels bandwidth
- VHF-UHF split band amplifier with inter-stage attenuators

6631 - Super Profiler SAT

- 1 SAT input + 6 Terrestrial inputs : FM / VHF / AUX / 3 x UHF
- 2 super selective single channel filters/converters
- 8 clusters from1 to 7 channels bandwidth
- VHF-UHF split band amplifier with inter-stage attenuators

6620 - Profiler PLUS
6621 - Profiler PLUS SAT

Reference	6620						6621
Inputs	FM	VHF	AUX (UHF)	UHF 1	UHF 2	UHF 3	SAT
Frequency range (MHz)	88-108	130-240 130-450 (S6-S39)	470-862	470-862 8-56 (1 to 7 channels/cluster)	470-862	470-862	950-2300
Configuration of clusters	-	-	-	0	10	0	-
				0	9	1	
				0	7	3	
				2	8	0	
				2	7	1	
				2	5	3	
Gain (dB)	30 / 35	35 / 40	25 / 30	50-55			40
Attenuator (dB)	20	20	20	30			20
Slope adjustment (dB)	-	-	-	-			9
General UHF level adjustment (dB)	-	-	+10 to -10				-
Noise figure (dB)	5	5	5	6			8
Max. input level (dBµV)	80	80	80	105			90
Max. output level * 2 / 1 Out (dBµV)	113 / 118	113 / 118	118 / 123	118 / 123			116
Selectivity	-	-	-	10 dB/10 MHz			SAT/TERR. >30 dB TERR./SAT >25 dB
Return loss - IN / OUT (dB)	>10	>10	>10	>10	>10	>10	>10
Selectable remote power 12-24 V (100 mA in total)	-	-	-	yes	yes	yes	0-13-18V / 300 mA and 0-22 kHz
Outputs	TV / TV / Test -30 dB						TV / TV -SAT / Test -30 dB
Power supply	230-240 V~						
Operating temperature (° C)	- 5 to + 50						
Dimensions (mm)	320 x 184 x 57						

* TERR. : -54 dB / IM3 SAT: -35 dB / IM3

new

Programmable amplifiers PROFILER PLUS

- Amplification of (SAT) / FM / VHF / AUX and filtering - equalizing 10 clusters coming from 3 UHF configurable inputs
- 1 or 2 programmable outputs
- Designed for both digital and analogue channels
- Easy programming by using one touch pad viewed on 3 digits display and LEDs for each cluster and input.
- Unit can be locked by security code.
- "Copy" function
- High selectivity filters
- Low noise figure and high gain split band amplifiers
- High power 123 dBµV
- High UHF input levels
- Automatic levelling of signal or manual with 30 dB attenuator with 1 dB step for accurate equalization
- 12 - 24 V selectable remote power for preamplifier
- 13 V – 18 V – 22 kHz selectable LNB remote power (SAT)
- -30 dB Test Output

- new design
- easy programming by touchpad or PC
- automatic leveling
- 2 outputs

6620 - Profiler PLUS

- 6 inputs : FM / VHF / AUX / 3 x UHF
- 10 clusters from1 to 7 channels bandwidth
- VHF-UHF split band amplifier with inter-stage attenuators

6621 - Profiler PLUS SAT

- 1 SAT input + 6 Terrestrial inputs : FM / VHF / AUX / 3 x UHF
- 10 clusters from1 to 7 channels bandwidth
- VHF-UHF split band amplifier with inter-stage attenuators

Programmable filters - equalizers

2 inputs

Reference	6503 / 6503 UK	
Inputs / outputs	2/1	
Number of clusters	6	
Inputs	UHF 1	UHF 2
Channels	21-69	21-69
Frequency range (MHz)	470-862	470-862
Bandwidth /cluster (MHz)	8-56 (1 to 7 ch)	8-56 (1 to 7 ch)
Configuration of clusters	6	0
	5	1
	3	3
Gain (dB)	5	5
Attenuator (dB)	30	30
Noise figure (dB)	6	6
Max. input level (dBµV)	95	95
Max. output level* (dBµV)	75	75
Selectivity	10 dB / 10 MHz	10 dB / 10 MHz
Return loss IN / OUT (dB)	>10	>10
Selectable power pass	yes	yes
Power supply	230-240 V~ / 5 V DC	
Consumption (mA)	300	
Operating temperature (° C)	- 5 to + 50	
Dimensions (mm)	157x142x51	

* -54 dB / IM3

3 inputs

Reference	6504 / 6504 UK			6505 / 6505 UK		
Inputs / outputs	3/1			1 VHF/1 + 2 UHF/1		
Number of clusters	10			1	9	
Inputs	UHF 1	UHF 2	UHF 2	VHF	UHF 1	UHF 2
Channels	21-69	21-69	21-69	5-12	21-69	21-69
Frequency range (MHz)	470-862	470-862	470-862	174-230	470-862	470-862
Bandwidth /cluster (MHz)	8-56 (1 to 7 ch)	8-56 (1 to 7 ch)	8-56 (1 to 7 ch)	1 ch	1 or 2 ch	1 or 2 ch
Configuration of clusters	2	8	0	1	9	0
	2	7	1	1	6	3
	2	5	3	1	5	4
Gain (dB)	5	5	5	5	5	5
Attenuator (dB)	30	30	30	30	30	30
Noise figure (dB)	6	6	6	10	6	6
Max. input level (dBµV)	95	95	95	85	95	95
Max. output level* (dBµV)	75	75	75	75	75	75
Selectivity	10 dB / 10 MHz	10 dB / 10 MHz	10 dB / 10 MHz	15 dB / 10 MHz	10 dB / 10 MHz	10 dB / 10 MHz
Return loss IN / OUT (dB)	>10	>10	>10	>10	>10	>10
Selectable power pass	yes	yes	yes	yes	yes	yes
Power supply	230-240 V~ / 5 V DC			230-240 V~ / 5 V DC		
Consumption (mA)	500			500		
Operating temperature (° C)	- 5 to + 50			- 5 to + 50		
Dimensions (mm)	222x142x51			222x142x51		

* -54 dB / IM3

Programmable filters - equalizers

- Active filtering of VHF and UHF analogue and digital channels before amplification
- 1 to 7 channels bandwidth per cluster for models 6503-6504
- 1 to 2 channels bandwidth per cluster with high selectivity for model 6505.
- Easy programming by using one rotary/push button viewed on 2 digits display and LEDs for each cluster and each input.
- Accurate equalization of levels using 1 dB step attenuators
- Switchable 20 dB input amplifier to attenuate high input signals
- Selectable DC power pass on each input

6503

6504

6505

Amplifiers

3 inputs

Reference	7750 / 7750 UK		
Frequency range	B I-II: 47-108 MHz	B III: 170-240 MHz	UHF: 470-862 MHz
Adjustable gain	25-40 dB	25-40 dB	25-40 dB
Max. input level	71 dBµV	74 dBµV	88 dBµV
Noise figure	4 dB	5 dB	6 dB
Max. output level (DIN 45004B)	116 dBµV	115 dBµV	116 dBµV
Return loss (input / output)	> 10 dB	> 10 dB	> 10 dB
Test output	-30 dB		
Automatic remote power *	-	-	24 V / 100 mA
Power	230-240 V~/20 VA		
Dimensions	280x125x68 mm		

*UK version : 12 VDC

3 inputs High Power

Reference	7752 / 7752 UK		
Frequency range	B I-II: 47-108 MHz	B III: 170-240 MHz	UHF: 470-862 MHz
Adjustable gain	10-30 dB	20-40 dB	30-50 dB
Max. input level	93 dBµV	91 dBµV	86 dBµV
Noise figure	3,5 dB	3,5 dB	2,5 - 5,5 dB**
Max. output level (DIN 45004B)	118 dBµV	117 dBµV	123 ± 1 dBµV
Return loss (input / output)	> 10 dB	> 10 dB	> 10 dB
Test output	-30 dB	-30 dB	-30 dB
Selectable remote power *	-	-	24V / 100 mA
Power	230-240 V~/20 VA		
Dimensions	280x125x68 mm		

*UK version : 12 VDC ** UHF amplifier is designed to keep noise figure down less than 5,5 dB on every gain level.

4 inputs

Reference	7751 / 7751 UK		
Frequency range	B I-II: 47-108 MHz	B III: 170-240 MHz	UHF1/UHF2: 470-862 MHz
Adjustable gain	8-28 dB	15-35 dB	15-35 dB
Max. input level	94 dBµV	99 dBµV	99 dBµV
Noise figure	6 dB	6 dB	7,5 dB
Max. output level (DIN 45004B)	117 dBµV	117 dBµV	115 dBµV
Return loss (input / output)	> 10 dB	> 10 dB	> 10 dB
Test output	-30 dB		
Selectable remote power *	-	-	24V / 100 mA in total
Power	230-240 V~/20 VA		
Dimensions	280x125x68 mm		

*UK version : 12 VDC

COFDM UHF

Reference	7735 / 7735 UK
Frequency range	470-862 MHz (ch. 21-69)
Adjustable gain	17-37 dB
Max. input level	80 dBµV
Noise figure	4 dB
Max. output level (DIN 45004B)	106 dBµV
Return loss (input / output)	18/15 dB min.
Bypass frequency	40-862 MHz (E2-69)
Bypass loss	-2,5 dB
Power	230-240 V~/6 VA
Dimensions	187x125x68 mm

Amplifiers

- 3 or 4 inputs
- Split band amplifier with interstage attenuator
- High gain and high output power
- High input power level with loise noise
- 24 Volt remote power on UHF inputs for preamplifiers
  12 Volt for UK version
- -30 dB test output

7750

7751

7752

- High power 123 dBµV

- 1 input for digital or analog signal and
  1 input for bypass of existing channels
- Interstage attenuator
- High gain amplifier

7735

UHF Filter

Reference	Channels	Bandwidth	Insertion loss	Attenuation channel n +/-2	Return loss (input/output)
1109	C 21-68	471-854 MHz	1,5 - 2 dB	25 dB min.	10 dB min

Splitters 5-2300 MHz

Reference	4502	4503	4504	4506	4508
Way	2	3	4	6	8
Frequency (MHz)	5-2300	5-2300	5-2300	5-2300	5-2300
Insertion loss (dB)	6,5	11	11	16	18
Isolation (dB)	16	20	20	20	20
Return loss in/out (dB)	10	10	10	10	10
DC power pass (out /in)	2	3	4	6	8
Dimensions (mm)	47x56x21	47x77x21	47x77x21	57x120x25	57x120x25

Taps 5-2300 MHz

1 way

Reference	4514	4510	4511	4515	4512	4516	4513	4517
Frequency (MHz)	5-2300	5-2300	5-2300	5-2300	5-2300	5-2300	5-2300	5-2300
Tap loss	8 dB ± 1	10 dB ± 1	15 dB ± 1	18 dB ± 1	20 dB ± 1	22 dB ± 1	25 dB ± 1	30 dB ± 1
Through loss (dB)	< 4	< 3,5	< 3	< 3	< 3	< 2,5	< 2,5	< 2
Out / Tap isolation (dB)	> 20	> 20	> 20	> 25	> 25	> 25	> 30	> 30
Input return loss (dB)	> 10	> 10	> 10	> 10	> 10	> 10	> 10	> 10
Tap return loss (dB)	> 10	> 10	> 10	> 10	> 10	> 10	> 10	> 10
Output return loss (dB)	> 10	> 10	> 10	> 10	> 10	> 10	> 10	> 10
Dimensions (mm)	47x56x21							

2 way

Reference	4520	4521	4522	4523	4524
Frequency (MHz)	5-2300	5-2300	5-2300	5-2300	5-2300
Tap loss	10 dB ± 1,5	15 dB ± 1,5	20 dB ± 1,5	25 dB ± 1,5	30 dB ± 1,5
Through loss (dB)	< 4,5	< 4	< 4	< 3	< 3
Tap / Tap isolation (dB)	> 16	> 20	> 20	> 20	> 20
Out / Tap isolation (dB)	> 25	> 30	> 30	> 30	> 30
Input return loss (dB)	> 10	> 10	> 10	> 10	> 10
Tap return loss (dB)	> 10	> 10	> 10	> 10	> 10
Output return loss (dB)	> 10	> 10	> 10	> 10	> 10
Dimensions (mm)	47x77x21				

UHF Filter

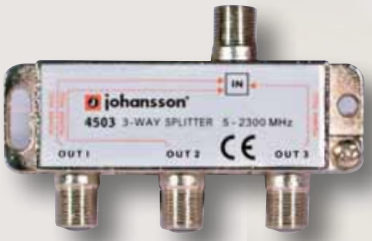
- Tetra filter

1109

Splitters 5-2300 MHz

- 2, 3, 4, 6 and 8 way
- Low insertion loss
- Nickel plated zinc diecast housing
- "F" type connectors
- All ports DC power pass (diodes protected)

4502



4503

4504

4506

4508

Taps 5-2300 MHz

- 1, 2, 4, 6 and 8 way
- Nickel plated zinc diecast housing
- "F" type connectors
- Input/output DC power pass

4510

4521

Taps 5-2300 MHz

4 way

Reference	4540	4541	4542	4543	4544
Frequency (MHz)	5-2300	5-2300	5-2300	5-2300	5-2300
Tap loss	12 dB ± 1,5	15 dB ± 1,5	20 dB ± 1,5	25 dB ± 1,5	30 dB ± 1,5
Through loss (dB)	< 5	< 3	< 3	< 3	< 3
Tap / Tap isolation (dB)	> 20	> 20	> 20	> 20	> 20
Out / Tap isolation (dB)	> 18	> 20	> 20	> 25	> 25
Input return loss (dB)	> 10	> 10	> 10	> 10	> 10
Tap return loss (dB)	> 10	> 10	> 10	> 10	> 10
Output return loss (dB)	> 10	> 10	> 10	> 10	> 10
Dimensions (mm)	47x56x19				

6 way

Reference	4561	4562	4563
Frequency (MHz)	5-2300	5-2300	5-2300
Tap loss	16 dB ± 2	20 dB ± 2	25 dB ± 2
Through loss (dB)	< 5	< 4	< 4
Tap / Tap isolation (dB)	> 16	> 20	> 20
Out / Tap isolation (dB)	> 18	> 18	> 18
Input return loss (dB)	> 10	> 10	> 10
Tap return loss (dB)	> 10	> 10	> 10
Output return loss (dB)	> 10	> 10	> 10
Dimensions (mm)	57x120x25		

8 way

Reference	4581	4582	4583
Frequency (MHz)	5-2300	5-2300	5-2300
Tap loss	16 dB ± 2	20 dB ± 2	25 dB ± 2
Through loss (dB)	< 5	< 4	< 4
Tap / Tap isolation (dB)	> 20	> 20	> 25
Out / Tap isolation (dB)	> 20	> 20	> 20
Input return loss (dB)	> 10	> 10	> 10
Tap return loss (dB)	> 10	> 10	> 10
Output return loss (dB)	> 10	> 10	> 10
Dimensions (mm)	57x120x25		

Taps 5-2300 MHz

4542

4562

4582

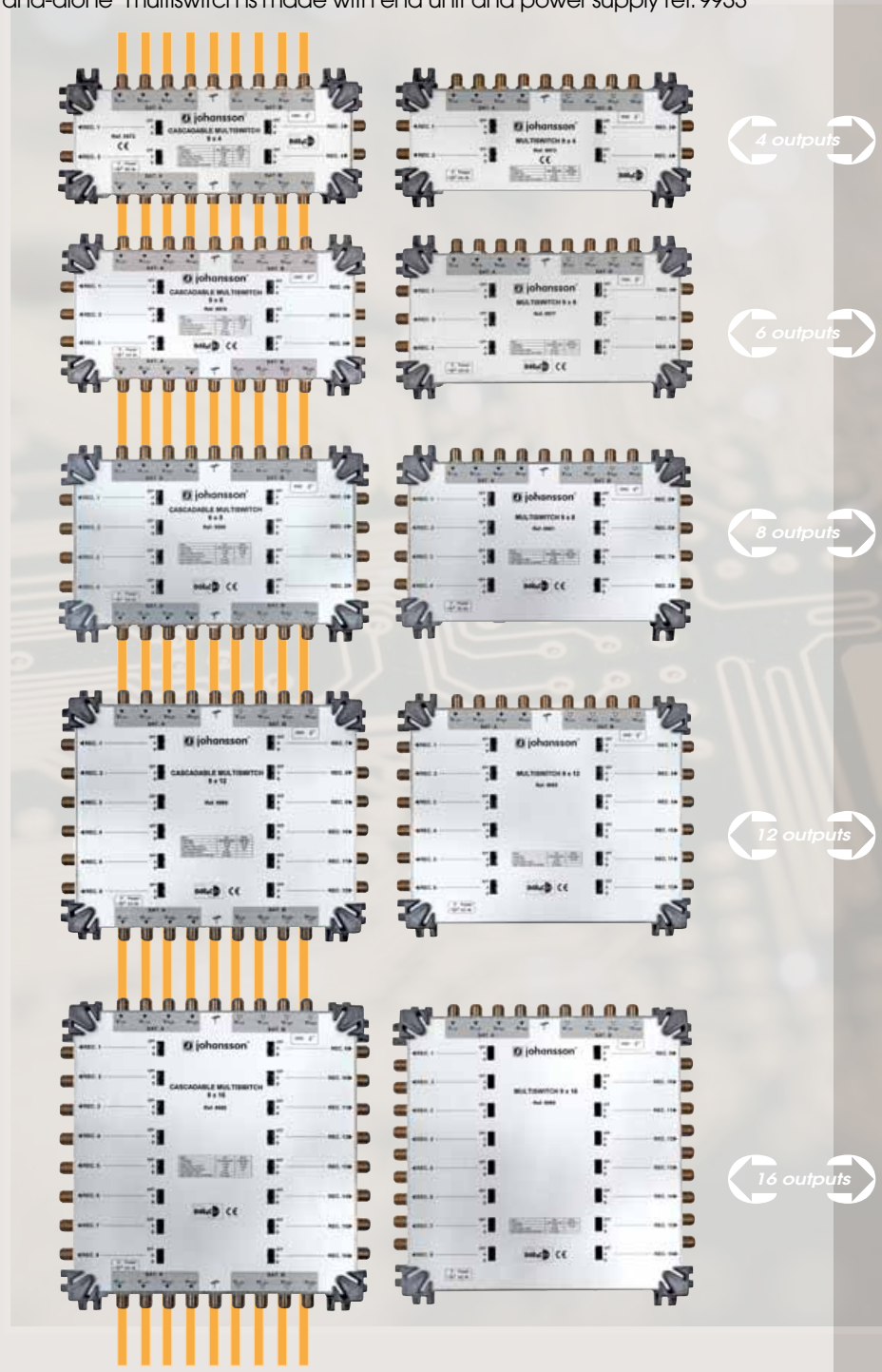
Multiswitches

Reference / Type	Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9970 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -2 dB Terr.: -3 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x102x51 mm
9971 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -2 dB Terr.: -3 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x102x51 mm
9972 cascadable	Sat.: -10 dB Terr.: -15 dB	Sat.: -2 dB Terr.: -3 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x102x51 mm
9973 end unit	Sat.: -5 dB Terr.: -15 dB	- -	Sat.:101 dBµV Terr.: -	60 mA	-	222x102x51 mm
9973A stand-alone	End unit ref. 9973 + Power supply ref. 9933 • UK version: ref. 9973A UK					222x102x51 mm
6 outputs						
9974 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x122x51 mm
9975 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x122x51 mm
9976 cascadable	Sat.: -10 dB Terr.: -15 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x122x51 mm
9977 end unit	Sat.: -5 dB Terr.: -15 dB	- -	Sat.:101 dBµV Terr.: -	60 mA	-	222x122x51 mm
9977A stand-alone	End unit ref. 9977 + Power supply ref. 9933 • UK version: ref. 9977A UK					222x122x51 mm
8 outputs						
9978 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x142x51 mm
9979 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x142x51 mm
9980 cascadable	Sat.: -10 dB Terr.: -20 dB	Sat.: -3 dB Terr.: -4 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x142x51 mm
9981 end unit	Sat.: -5 dB Terr.: -20 dB	- -	Sat.:101 dBµV Terr.: -	60 mA	-	222x142x51 mm
9981A stand-alone	End unit ref. 9981 + Power supply ref. 9933 • UK version: ref. 9981A UK					222x142x51 mm
12 outputs						
9982 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x182x51 mm
9983 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x182x51 mm
9984 cascadable	Sat.: -10 dB Terr.: -20 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x182x51 mm
9985 end unit	Sat.: -5 dB Terr.: -20 dB	- -	Sat.:101 dBµV Terr.: -	60 mA	-	222x182x51 mm
9985A stand-alone	End unit ref. 9985 + Power supply ref. 9933 • UK version: ref. 9985A UK					222x182x51 mm
16 outputs						
9986 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x222x51 mm
9987 cascadable	Sat.: -15 dB Terr.: -25 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x222x51 mm
9988 cascadable	Sat.: -10 dB Terr.: -25 dB	Sat.: -4 dB Terr.: -5 dB	Sat.:101 dBµV Terr.: -	60 mA	Sat.: yes Terr.: no	222x222x51 mm
9989 end unit	Sat.: -5 dB Terr.: -25 dB	- -	Sat.:101 dBµV Terr.: -	60 mA	-	222x222x51 mm
9989A stand-alone	End unit ref. 9989 + Power supply ref. 9933 • UK version: ref. 9989A UK					222x222x51 mm

Multiswitches

9 inputs - 8 SAT + 1 Terrestrial

- Cascadable and stand-alone versions
- Range of 4 / 6 / 8 / 12 / 16 outputs
- DiSEqC 2.0
- SAT: 950-2300 MHz
- Passive terrestrial signal 5-862 MHz with return path / DTT compatible
- The power supply is connected to whichever multiswitch and is used to feed the LNBs and the amplifiers ref. 9934/9935
- The LED on each multiswitch indicates the DC power pass
- Multiswitches with different range of attenuation for equalized distribution of signals
- Selection DiSEqC A or B or disconnection of SAT signal on each receiver output
- The "stand-alone" multiswitch is made with end unit and power supply ref. 9933



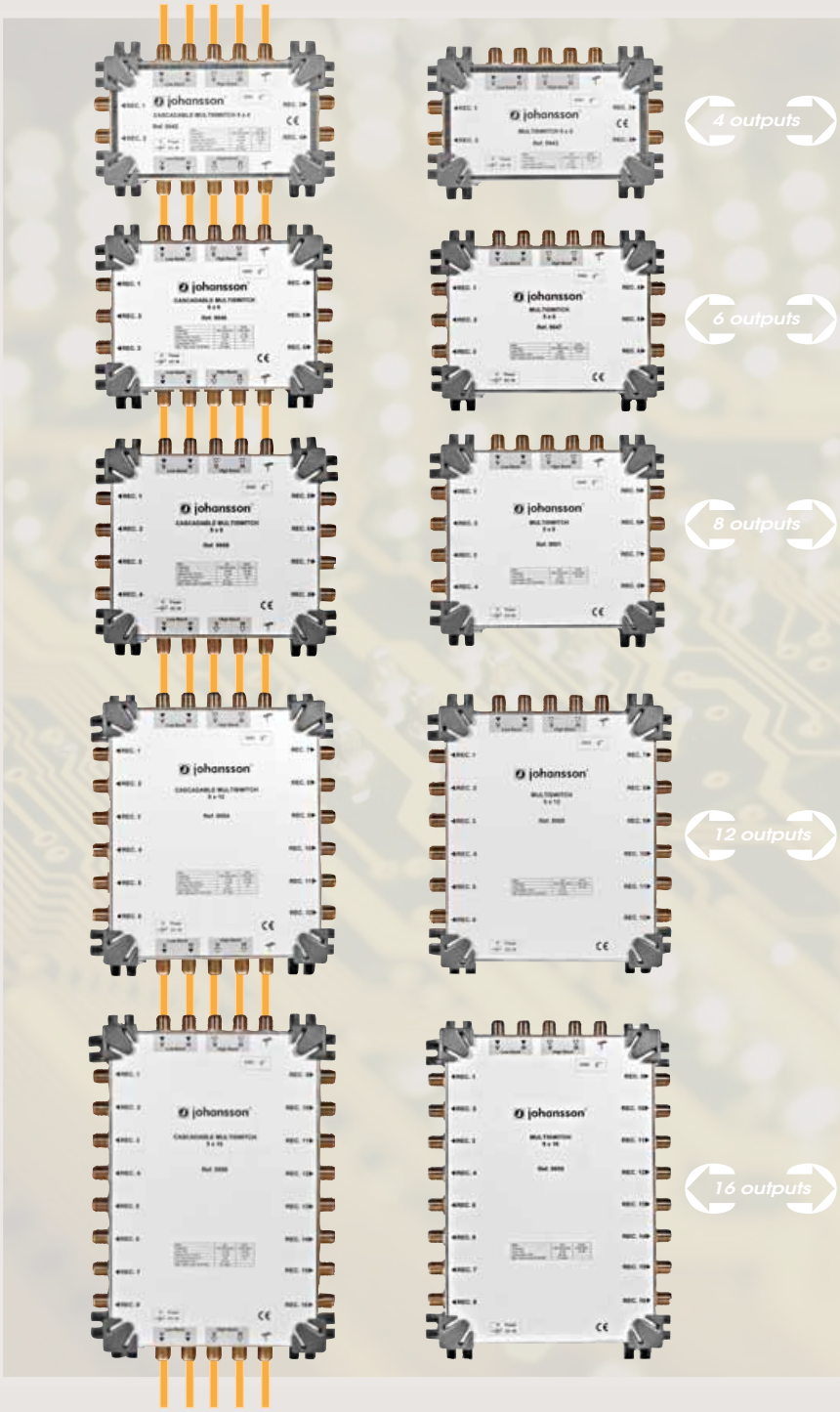
Multiswitches

Reference / Type	Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9940 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x102x51 mm
9941 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x102x51 mm
9942 cascadable	Sat.: -10 dB Terr.: -15 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x102x51 mm
9943 end unit	Sat.: -5 dB Terr.: -15 dB	- -	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x102x51 mm
9943A stand-alone	End unit ref. 9943 + Power supply ref. 9933 • UK version: ref. 9943A UK					158x102x51 mm
6 outputs						
9944 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -3 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x122x51 mm
9945 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -3 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x122x51 mm
9946 cascadable	Sat.: -10 dB Terr.: -15 dB	Sat.: -3 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x122x51 mm
9947 end unit	Sat.: -5 dB Terr.: -15 dB	- -	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x122x51 mm
9947A stand-alone	End unit ref. 9947 + Power supply ref. 9933 • UK version: ref. 9947A UK					158x122x51 mm
8 outputs						
9948 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -3,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x142x51 mm
9949 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -3,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x142x51 mm
9950 cascadable	Sat.: -10 dB Terr.: -20 dB	Sat.: -3,5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x142x51 mm
9951 end unit	Sat.: -5 dB Terr.: -20 dB	- -	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x142x51 mm
9951A stand-alone	End unit ref. 9951 + Power supply ref. 9933 • UK version: ref. 9951A UK					158x142x51 mm
12 outputs						
9952 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -4 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x182x51 mm
9953 cascadable	Sat.: -15 dB Terr.: -20 dB	Sat.: -4 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x182x51 mm
9954 cascadable	Sat.: -10 dB Terr.: -20 dB	Sat.: -4 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x182x51 mm
9955 end unit	Sat.: -5 dB Terr.: -20 dB	- -	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x182x51 mm
9955A stand-alone	End unit ref. 9955 + Power supply ref. 9933 • UK version: ref. 9955A UK					158x182x51 mm
16 outputs						
9956 cascadable	Sat.: -20 dB Terr.: -25 dB	Sat.: -5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x222x51 mm
9957 cascadable	Sat.: -15 dB Terr.: -25 dB	Sat.: -5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x222x51 mm
9958 cascadable	Sat.: -10 dB Terr.: -25 dB	Sat.: -5 dB Terr.: -3,5 dB	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x222x51 mm
9959 end unit	Sat.: -5 dB Terr.: -25 dB	- -	Sat.:101 dBµV Terr.: -	50 mA	Sat.: yes Terr.: no	158x222x51 mm
9959A stand-alone	End unit ref. 9959 + Power supply ref. 9933 • UK version: ref. 9959A UK					158x222x51 mm

Multiswitches

5 inputs - 4 SAT + 1 Terrestrial

- Cascadable and stand-alone versions
- Range of 4 / 6 / 8 / 12 / 16 outputs
- SAT: 950-2300 MHz
- Passive terrestrial signal 5-862 MHz with return path / DTT compatible
- The power supply is connected to whichever multiswitch and is used to feed the LNBs and the amplifiers ref. 9934/9935
- The LED on each multiswitch indicates the DC power pass
- Multiswitches with different range of attenuation for equalized distribution of signals
- The "stand-alone" multiswitch is made with end unit and power supply ref. 9933



Multiswitches 3 inputs

2 SAT (950 - 2150 MHz) + 1 Terrestrial (passive 5-862 MHz)

Reference / Type	Gain-Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9130 cascadable	Sat.: +3dB Terr.: -16 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.: 100 dBµV Terr.: -	70 mA	Sat.:500 mA max. Terr.: no	125x108x51 mm
8 outputs						
9132 cascadable	Sat.: +3dB Terr.: -18 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.: 100 dBµV Terr.: -	70 mA	Sat.:500 mA max. Terr.: no	125x148x51 mm

2 SAT (950 - 2150 MHz) + 1 Terrestrial (active 88-862 MHz + passive RP 5-65 MHz)

Reference / Type	Gain-Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9134 cascadable	Sat.: +3dB Terr.: +0 dB RP: - 18 dB	Sat.: -3,5 dB Terr.: -2 dB	Sat.: 90 dBµV Terr.: 90 dBµV RP: -	100 mA	Sat.:500 mA max. Terr.: no	125x108x51 mm
8 outputs						
9136 cascadable	Sat.: +3dB Terr.: +0 dB RP: - 20 dB	Sat.: -5 dB Terr.: -2 dB	Sat.: 100 dBµV Terr.: 90 dBµV RP: -	100 mA	Sat.:500 mA max. Terr.: no	125x148x51 mm

Multiswitches 5 inputs

4 SAT (950 - 2150 MHz) + 1 Terrestrial (passive 5-862 MHz)

Reference / Type	Gain-Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9150 cascadable	Sat.: +3dB Terr.: -18 dB	Sat.: -2,5 dB Terr.: -3,5 dB	Sat.: 100 dBµV Terr.: -	70 mA	Sat.:500 mA max. Terr.: no	154x128x41 mm
8 outputs						
9152 cascadable	Sat.: +3dB Terr.: -20 dB	Sat.: -5 dB Terr.: -4 dB	Sat.: 100 dBµV Terr.: -	70 mA	Sat.:500 mA max. Terr.: no	154x168x51 mm

4 SAT (950 - 2150 MHz) + 1 Terrestrial (active 88-862 MHz + passive RP 5-65 MHz)

Reference / Type	Gain-Loss / Receiver	Trunk lines insertion loss	Max. output level	Consumption per receiver	In/Out DC power pass	Dimensions
4 outputs						
9154 cascadable	Sat.: +3dB Terr.: +0 dB RP: - 18 dB	Sat.: -5 dB Terr.: -2 dB	Sat.: 100 dBµV Terr.: 90 dBµV RP: -	70 mA	Sat.:500 mA max. Terr.: no	154x128x51 mm
8 outputs						
9156 cascadable	Sat.: +3dB Terr.: +0 dB RP: - 20 dB	Sat.: -6 dB Terr.: -4 dB	Sat.: 100 dBµV Terr.: 90 dBµV RP: -	100 mA	Sat.:500 mA max. Terr.: no	154x168x51 mm

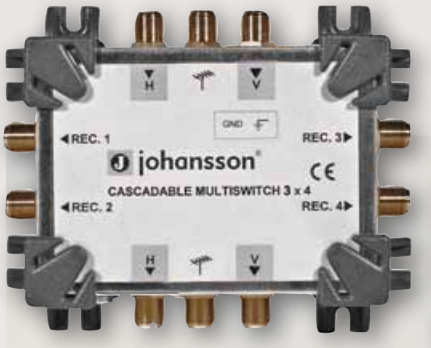
LNB powered from 1 trunked line or jack 20 VDC or subscriber port

new

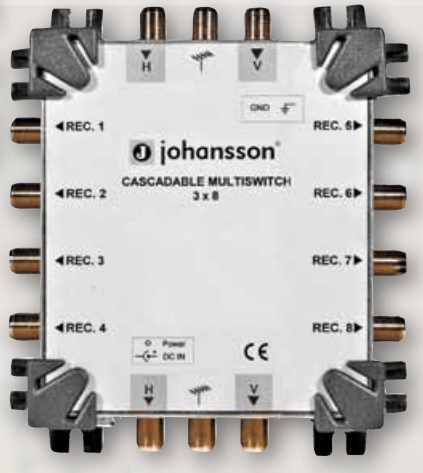
Multiswitches

- 4 / 8 outputs
- Passive or active terrestrial with return path
- LNB powered from subscriber port

9130 / 9134



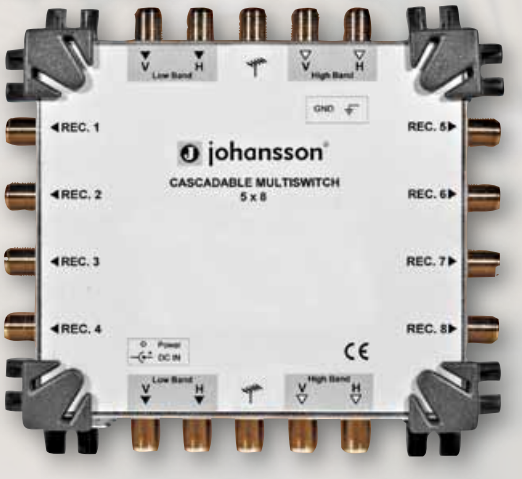
9132 / 9136



3 inputs

9150 / 9154

9152 / 9156



5 inputs

4 SAT IF Headend amplifiers

Reference	9651
Inputs	4 SAT + 2 DC
Outputs	4 SAT
Frequency range	950-2300 MHz
Adjustable Gain	15-30 dB
Adjustable slope	0-15 dB @ 950 MHz
Noise figure	10 dB
Max. output level (-35 dB / IM3)	118 dBµV
Input / Ouput return loss	> 10 dB
Remote LNB power	13/18 VDC (600 mA max.)
DC IN to SAT outputs	1,5 A max. per output
Power	230-240 V~ / 30 VA
Connectors SAT and DC	“F”
Dimensions	275 x 132 x 68 mm

Reference	9652
Inputs	4 SAT
Outputs	4 SAT
Frequency range	950-2300 MHz
Gain	24-30 dB (sloped)
Gain adjustment	15 dB
Noise figure	10 dB
Max. output level (-35 dB / IM3)	114 dBµV
Input / Ouput return loss	> 10 dB
Remote LNB power and DC outputs	15 VDC / 2 A max. in total
Power	230-240 V~ / 60 VA
Connectors	“F”
Dimensions	275 x 125 x 68 mm

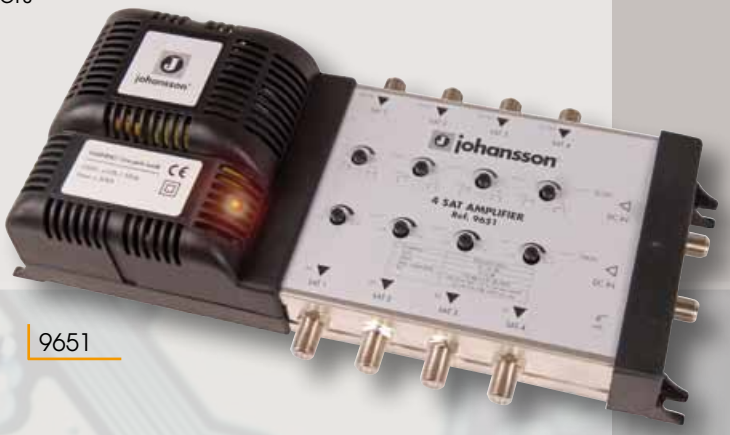
SAT IF amplifier with terrestrial bypass

Reference	9650	
Input	SAT	Terrestrial
Frequency range	950-2300 MHz	47-862 MHz
Adjustable gain	20-40 dB	Bypass - 2 dB max.
Adjustable slope	0-15 dB @ 950 MHz	-
Max. input level	75 dBµV	-
Noise figure	9 dB	-
Max. output level (-35 dB / IM3)	115 dBµV	-
Selectivity	Terr. / SAT > 40 dB	SAT / Terr. > 25 dB
Input / Output return loss	> 10 dB	> 10 dB
Remote LNB power	0-13-18 V / 0-22 kHz	-
Consumption	150 mA @ 20 VDC (without LNB powering)	
Power adapter	230-240 VAC / 50 Hz / 30 VA 20 VDC / 1.0 A	
Test output	-30 dB (47-2300 MHz)	
Connectors	“F”	

new

4 SAT IF Headend amplifiers

- separate adjustment for gain and slope
- DC input for powering trunk line amplifiers
- 13/18 V for LNB powering



9651

- Sloped gain 24-30 dB
- 15 VDC on outputs to power trunk line amplifiers and LNB

9652

SAT IF amplifier with terrestrial bypass

- designed to combine amplified SAT with terrestrial signals (DTT compatible)
- separate adjustment for gain and slope
- high isolation to avoid interferences between SAT and terrestrial signals
- LNB power : 0 -13V-18V/ 0-22 kHz for H-V polarity and Low-High band selection

9650

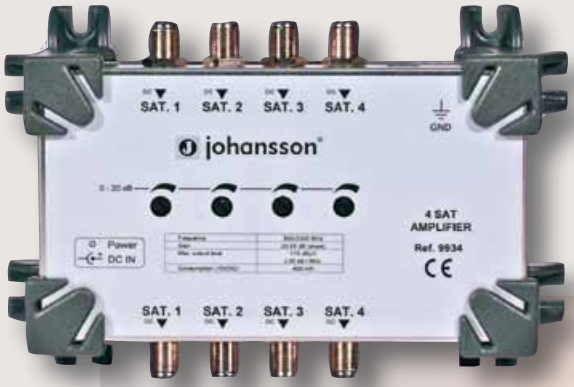
Amplifiers

Reference	9934	9935
inputs	4 SAT	4 SAT + 1 Terr
Outputs	4	5
Frequency range	950-2300 MHz	Sat.: 950-2300 MHz Terr.: 5-65 MHz + 87-862 MHz
Gain	20-25 dB (sloped)	Sat.: 20-25 dB (sloped) Terr.: 87-862 MHz - 20-27 dB (sloped) return path: - 1 dB
Noise figure	5 dB	Sat.: 5 dB - Terr.: 6 dB
Gain adjustment	20 dB	Sat.: 20 dB - Terr.: 20 dB
Max. output level	110 dBµV (-35 dB/IM3)	Sat.: 110 dBµV (-35 dB/IM3) Terr.: RP: passive 87-862 MHz: 114 dBµV (-54 dB/IM3)
Consumption	400 mA from 15 VDC external power supply or input / output	500 mA from 15 VDC external power supply or input / output
Dimensions	158 x 102 x 51 mm	158 x 102 x 51 mm

Power supply

Reference	9933 / 9933 UK
AC input	230 V~/50 Hz
DC output	15 VDC
Max. output current	2.0 Amp
Connector	Jack 2,1 mm / female
Dimensions	176x71x47 mm

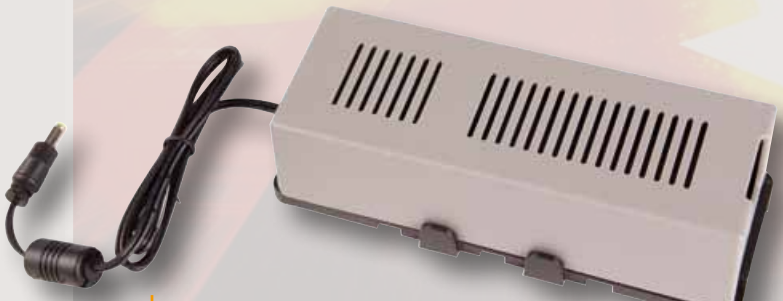
Amplifiers



9934

9935

Power supply



9933

Splitters

Reference	9936	9937
Nb of inputs	4 SAT	4 SAT + 1 Terr
Nb of outputs	2 x 4	2 x 5
Frequency range	950-2300 MHz	Sat.: 950-2300 MHz Terr.: 5-862 MHz
Loss	5 dB	Sat.: 5 dB - Terr.: 5 dB
DC power pass in / out	yes	yes
Dimensions	158 x 142 x 51 mm	158 x 162 x 51 mm

TAPS

Reference	9938	9939
Nb of inputs	4 SAT	4 SAT + 1 Terr
Nb of outputs	4 taps / 4 through	5 taps / 5 through
Frequency range	950-2300 MHz	Sat.: 950-2300 MHz Terr.: 5-862 MHz
Tap loss	-10 dB	Sat.: -10 dB - Terr.: -13 dB
Through loss	-1 dB	Sat.: -1 dB - Terr.: -1 dB
DC power pass in/tap/out	yes	yes
Dimensions	142 x 158 x 51 mm	162 x 158 x 51 mm

Option switch

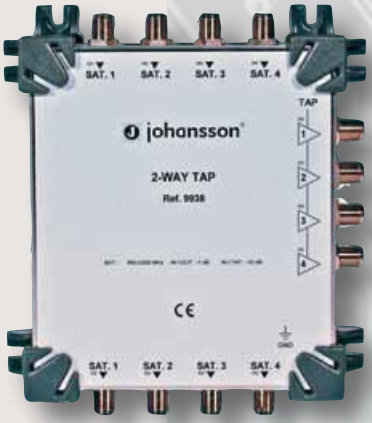
Reference	9218
Inputs	1 = SAT + TERR., 2 = SAT
Frequency range	SAT: 950-2300 MHz, TERR.: 5-862 MHz
Insertion loss	SAT: 4 dB± 1dB / Ter.: 3 dB
Isolation between inputs	26 dB min.
By pass control	22 kHz (universal band control) 13/18V (polar.) & position A/B
Switching control	Option A/B DiSEqC™ commands
Amplitude	0.6V ±0.2Vpp
Consumption	30 mA
DC loss	0.3V max.
Dimensions	110 x 65 x 20 mm

Splitters

9936

9937

Taps

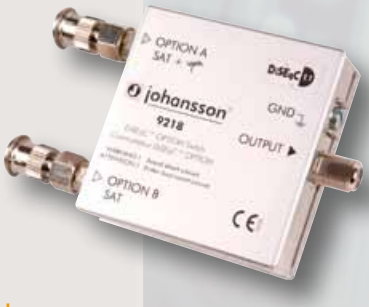


9938

9939

Option switch

new



9218

- Plug-in switch to control 2 multiswitches for distribution of 16 SAT inputs with terrestrial to 1 user

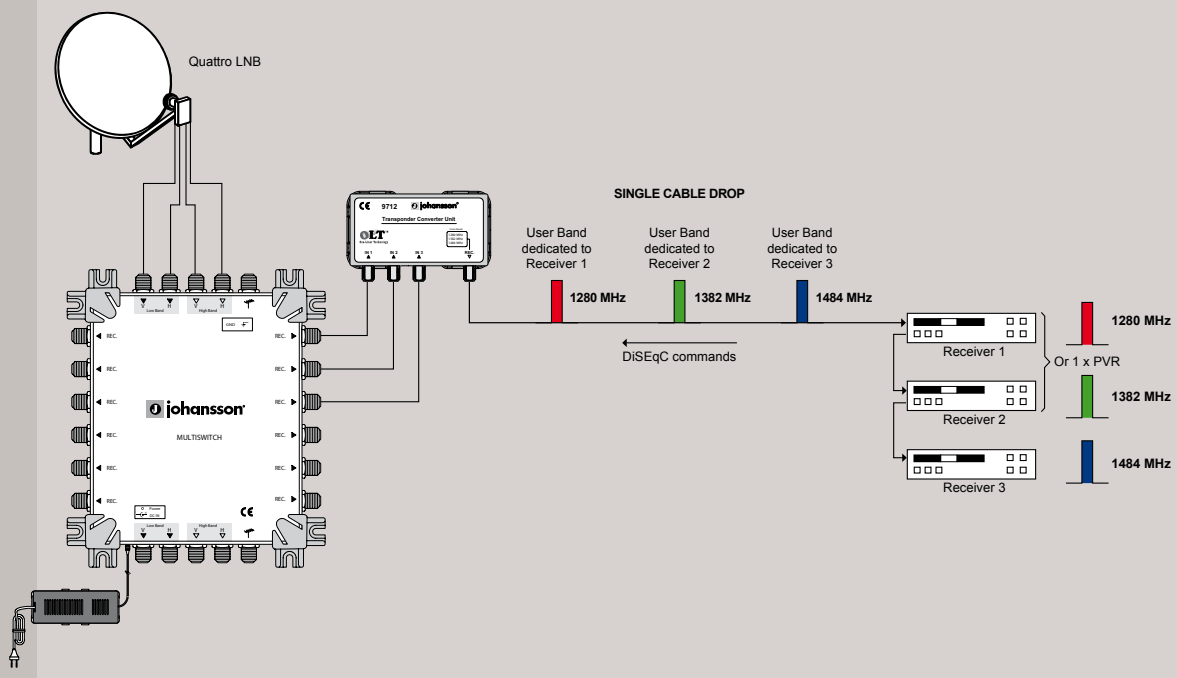
OLT™ One-Liner Technology

Channel Stacking Technology

Transponder converter units

Reference	9701		9712
Inputs Frequency range	4 x SAT 950 - 2150 MHz	1 Terrestrial 5 - 862 MHz	3 x SAT 950-2150 MHz
Receiver Outputs	**2 x 3 user bands - 9701** (IF frequency 974/1076/1178 - 1280/1382/1484 MHz) DiSEqC commands following CENELEC standard EN50494 2 x Legacy		**1 x 3 user bands** IF frequency : 1280/1382/1484 MHz
Gain / Loss	A.G.C: + 5 dB (User Band out) + 2 dB (Legacy)	- 18 dB	+ 15 dB with A.G.C
Max. input level	-30 dBm (78 dBµV) indicated by red LED	-	-30 dBm (78 dBµV)
Output level	-37 dBm (71 dBµV) - 9701	-	-37 dBm (71 dBµV)
Consumption per receiver	50 mA (without powering LNB)	-	150 mA (without powering LNB)
Return loss In / Out / Trunk	> 10 dB	> 10 dB	> 10 dB
LNB power	13V/18V/13V+22kHz / 18V+22kHz (300 mA max) or DC from trunk lines	-	-
Switches	Power supply to LNB inputs from REC. Outputs ON/OFF / and Quad/Quattro selection	-	-
Trunk lines	4 x SAT	1 x Terrestrial	-
Insertion loss	1,5 dB	3,5 dB	-
DC power pass	Yes (1 A max.)	No	13 V / 18 V / 22 kHz
Isolations	SAT / SAT > 35 dB - SAT / Terr. > 35 dB - Terr. / SAT > 20 dB REC / REC: > 40 dB SAT, > 20 dB Terr.		SAT / SAT > 26 dB
Power adapter	230-240 VAC / 50 Hz, 5 VDC / 2.0 A, Jack ø 2.1 mm		-
Consumption	1,05 A (5 V)		-
Connectors	"F"		"F"
Dimensions	158 x 102 x 51 mm		104 x 66 x 35 mm

To upgrade and extend easily an installation when replacing a standard receiver by a PVR OLT™ receiver or adding a new OLT™ receiver in the apartment.



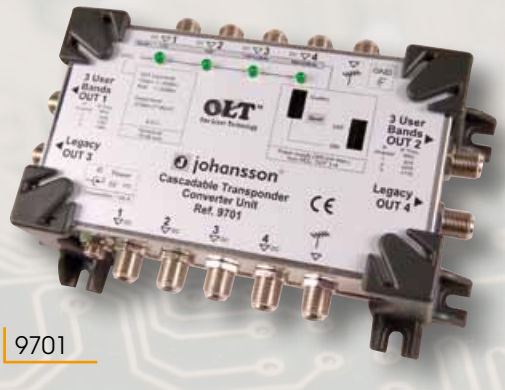
Channel Stacking Technology

Transponder converter units

Distribution of satellite signals to multi users.

- This technology allows to transmit different user bands over one single cable drop. Each user band is dedicated to one receiver.
- The receiver which is tuned on its band, selects the program to be received by DiSEqC™ commands.
- The satellite receivers using OLT™ technology are compatible with Unicable™, CSS™ (Channel Stacking Switch) and SCR (Satellite Channel Router)

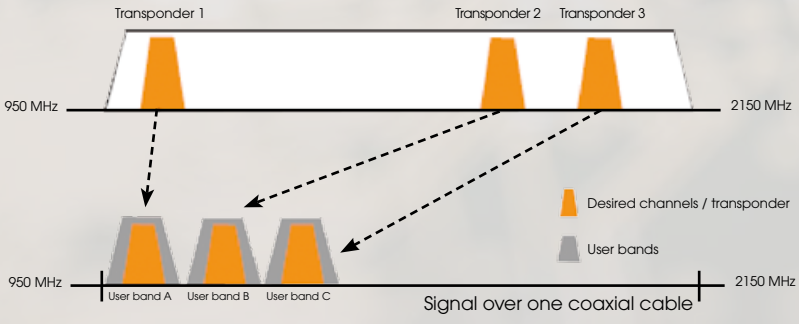
9712



9701

- Cascadable

- Transponder from any band or polarization of one or more satellites distributed in the installation.
- Fully tranparent (analogue, digital, HDTV...)

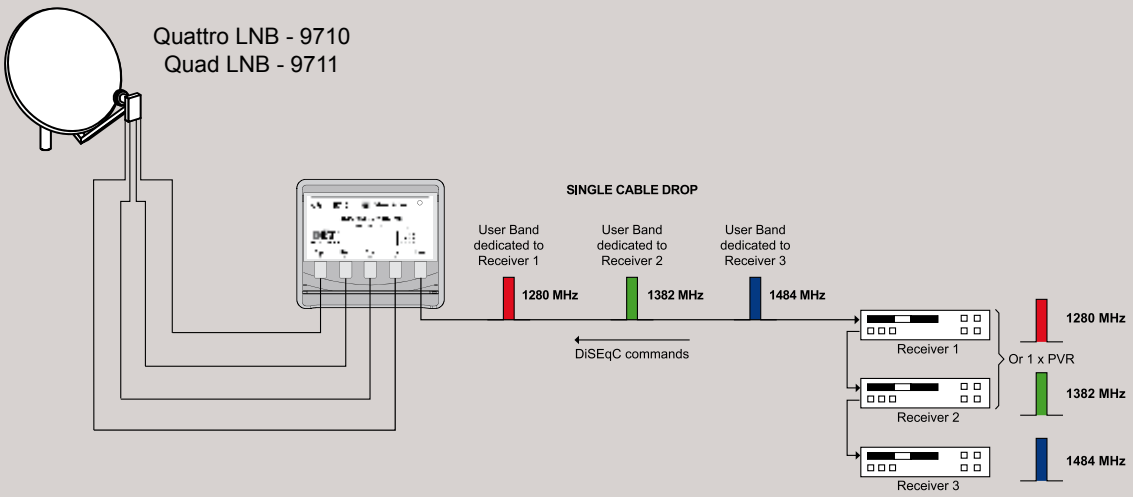


OLT™
One-Liner Technology

Channel Stacking Technology

Transponder converter units

Reference	9710	9711
Inputs	4 x SAT (Quattro)	4 x SAT (Quad)
Frequency range	950-2150 MHz	
Output	3 User Bands IF frequency 1280/1382/1484 MHz DiSEqC commands following CENELEC standard EN50494	
Gain	+ 15 dB with A.G.C	
Max. input level	-30 dBm (78 dBµV)	
Output level	-37 dBm (71 dBµV)	
Return loss in / out	> 10 dB	
DC power pass	13 V	13 V / 18 V / 22 kHz
Consumption	150 mA (without powering LNB)	
Isolation	SAT / SAT > 26 dB	
Connectors	"F"	
Dimensions	112 x 98 x 56 mm	



Channel Stacking Technology

new

Transponder converter units

- This technology allows to transmit over **one single cable drop** satellite signals to **3 independant receivers**.
- Each user band is dedicated to one receiver.
- The receiver which is tuned on its band selects the program to be received by DiSEqC™ commands
- The satellite receivers using OLT™ technology are compatible with Unicable™ , CSS™ (Channel Stacking Switch) and SCR (Satellite Channel Router).

9710 (Quattro)

9711 (Quad)

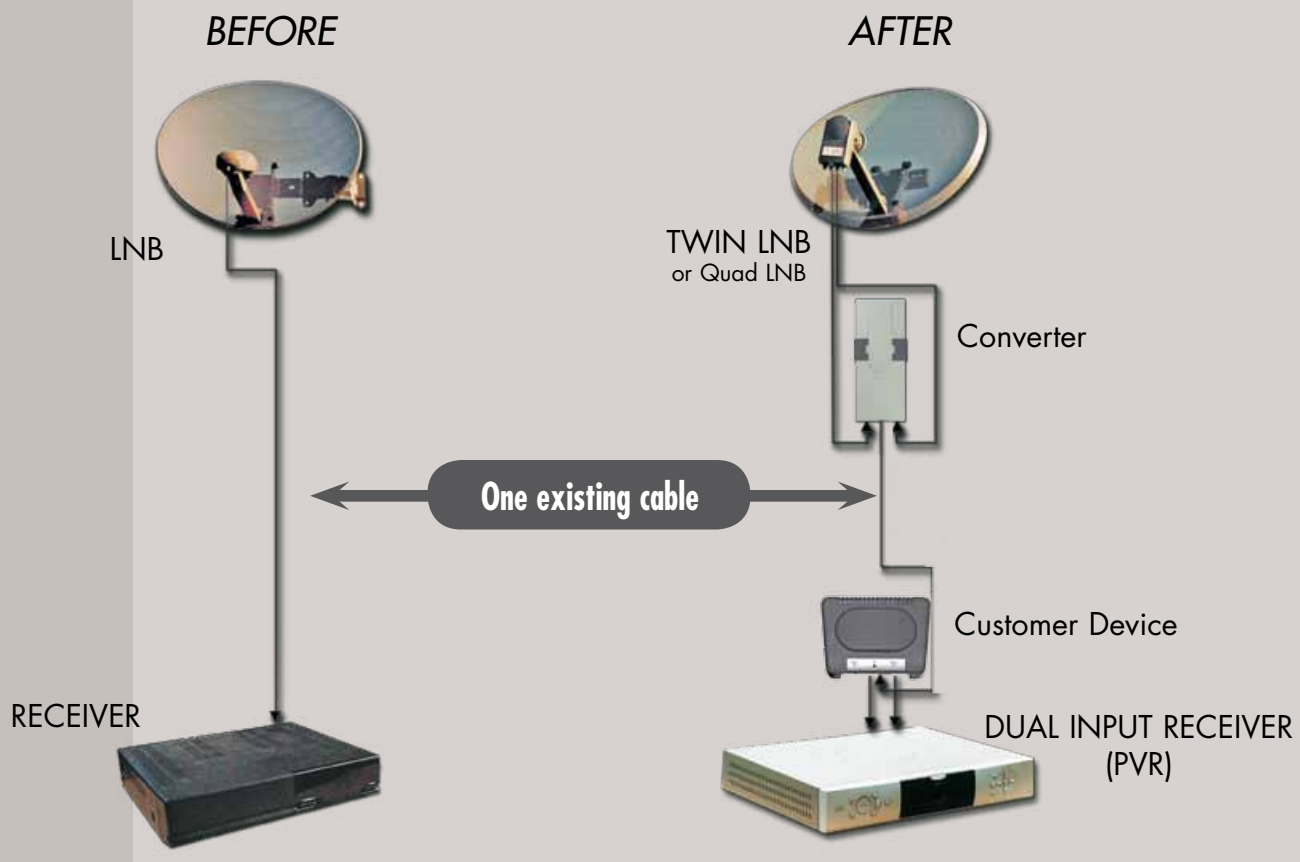
Band Stacking Technology

Multi Band Converter

Reference	9640 KIT / 9640 KIT UK
Converter	
Inputs	1 x 5-2150 MHz 1 x 950-2150 MHz
Output	5-3550 MHz with 'F' High Quality connector (rated to operate on the frequency range up to 3,6 GHz)
Insertion loss / gain	Terr.: -1 dB / Sat.: -4 dB Converted SAT : + 7 dB
Max. input level	78 dBµV
Consumption	85 mA max.
Dimensions	201 x 87 x 42 mm
Customer Device	
Input	5-3550 MHz with 'F' High Quality connector (rated to operate on the frequency range up to 3,6 GHz)
Outputs	1 x 5-2150 MHz - 1 x 950-2150 MHz
Insertion loss / gain	Terr.: -1 dB / Sat.: -4 dB Converted SAT : + 0 dB
Consumption	60 mA max.
Power adapter	230-240 V~ / 50 Hz / 30 VA – 20 VDC output / 1,0 A
Dimensions	127 x 92 x 41 mm

General specification	Operating system up to 70 m CT100 or 17 VAtC coaxial cable

Optional: line amplifier ref. 9637 / see specifications p. 62



Band Stacking Technology

Multi Band Converter (Stacker - Destacker)

9640 KIT

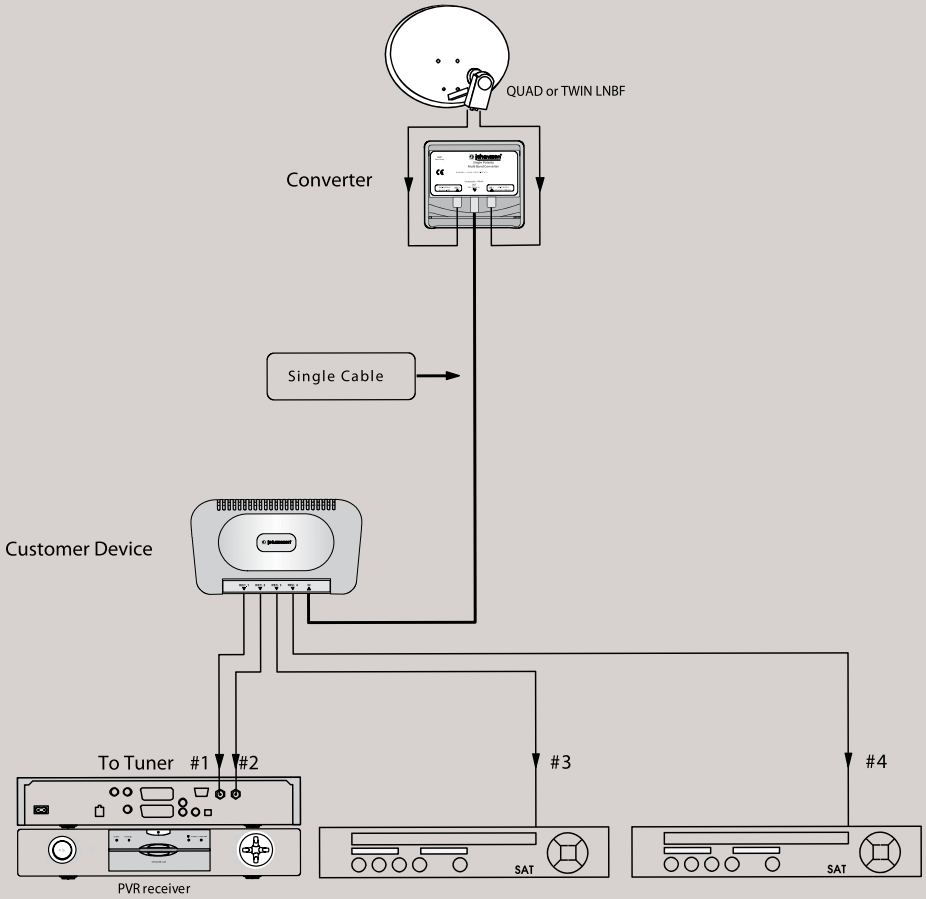
- The Multi Band converter allows to upgrade the installation with a TWIN (or quad) LNBF to be connected with a dual tuner input digital receiver with recorder (PVR) on existing cable.
- DiSEqC function allows to receive signal from 2 satellites (e .g Astra / Hot Bird)
- Wide band 5-2150 MHz to combine terrestrial signal
- Horizontally and vertically mountable strap positions
- 4 F/F coaxial cables are included for LNB and receiver connections

Band Stacking Technology

4 outputs Single Polarity Multi Band Converter

Reference	9641 KIT
Converter	
Inputs	2 x 950-2150 MHz
Output	1 x 950-3550 MHz with 'F' High Quality connector (rated to operate up to 3,6 GHz)
Insertion loss / gain	Bypass: -2 dB Converted SAT : + 7 dB
Consumption	100 mA (18V)
Dimensions	112 x 98 x 56 mm
Customer Device	**Ref. 9645 (when ordered separately)**
Input	1 x 950-3550 MHz with 'F' High Quality connector (rated to operate up to 3,6 GHz)
Outputs	4 x 950-2150 MHz
Insertion loss / gain	Bypass (18 V): -5 dB Converted SAT (18V + 22 kHz) : + 2 dB
Consumption	80 mA (18 V).
Power LED indicator	Yes
DC Power Input	Jack Ø 2.1 mm for optional adapter
Dimensions	167 x 100 x 52 mm

General specification	Operating system up to 50 m CT100 or 17 VAtC coaxial cable



Band Stacking Technology

4 outputs Single Polarity Multi Band Converter

9641KIT

9645

- The Multi Band converter enables to upgrade the installation with a QUAD(or twin) LNBF to be connected with 4 tuners on existing cable.
- The converter enables 2 IF feeds of the same polarity to be combined onto a single coaxial cable
- The customer device separates the 2 feeds to be used with the STBs
- 4 output are available (to connect for example 4 input PVR or 2 standard STBs and a dual input PVR …)

Band Stacking Technology

Stacker

Reference	9642	
Inputs	5-2150 MHz	950-2150 MHz
Insertion Loss / Gain	5-860 MHz: -1 dB 950-2150 MHz: -4 dB	2350-3550 MHz: +7 dB
Max. input level	-	75 dBµV
Output	5-3550 MHz	
Consumption	60 mA (12 V) via input through power injector (not provided)	
Operating temperature range	-5 to +60 °C	
Dimensions	146 x 73 x 24 mm	

Destacker

Reference	9643	
Input	5-3550 MHz	
Max. input level	80 dBµV	
Outputs	5-2150 MHz	950-2150 MHz
Insertion Loss / Gain	5-860 MHz: -1 dB 950-2150 MHz: -4 dB	950-2150 MHz: +0 dB
Consumption	60 mA (13/18 V) via output	
Operating temperature range	-5 to +60 °C	
Dimensions	127 x 92 x 41 mm	

Splitters 3,6 GHz

Passive

Reference	4492	4494	4498
Way	2	4	8
Frequency (MHz)	5-3550	5-3550	5-3550
Insertion loss (dB) +/- 2	-7	-14	-20
Isolation (dB)	> 6	>12	>12
Return Loss in/out (dB)	10 dB	10 dB	10 dB
DC power pass (out to in)	2	4	8
Dimensions (mm)	100x69x23	150x85x25	150x100x25

Active

Reference	4592	4594	4598
Way	2	4	8
Frequency (MHz)	40-3550	40-3550	40-3550
Gain (dB) +/- 2	+2	+2	-3 loss
Isolation (dB)	> 20	>12	>12
Return Loss in/out (dB)	10 dB	10 dB	10 dB
DC power pass (out to in)	2	4	8
Consumption (mA) 10-24 VDC	120	80	140
Dimensions (mm)	100x69x23	150x85x25	150x100x25

Line Amplifiers

Reference	9637	9638
Frequency (MHz)	40-3550	950-3550 + bypass 5-806 (-6 dB)
Gain (dB)	7-15 slope	22-32 slope
Noise figure (dB)	7	7
Max. Output level (dBµV) /-35 dB IM3-2c	110	113
DC power pass (mA) max.	500	1000 Out to IN and DC jack to IN (Ø2,5mm)
Return Loss in/out (dB)	10	10
Isolation Sat to Terr. (dB)	-	> 25
Power supply (VDC)	13-18	10-20
Consumption (mA)	30	150
Dimensions (mm)	77x21x15	133x92x41

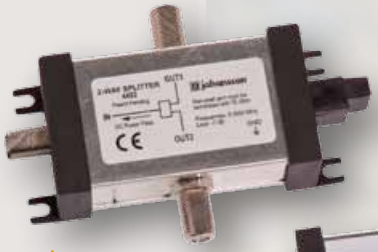
Band Stacking Technology

Stacker - Destacker

9642

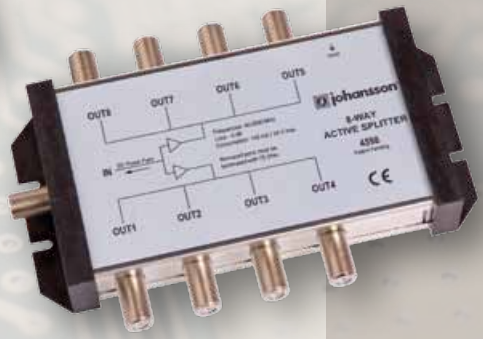
9643

Splitters 3,6 GHz



4492/4592

4494/4594



4498/4598

- 2, 4 and 8 way
- Active and Passive models
- High Quality "F" connectors rated up 3,6 GHz

Line Amplifiers

- Ultra Wide Band line amplifier
- Terrestrial bypass (model ref.9638)
- High Quality "F" connectors rated up 3,6 GHz

9637

9638

Programmable Active Combiners

2 inputs

Reference	6550A	6555A
Input	UHF / UHF bypass	2 x UHF
Frequency range (MHz)	470-862 MHz	470-862 MHz
Clusters	1 / 1 rejected	2
Bandwidth (MHz)	8-56 (1 to 7 channels)	8-56 (1 to 7 channels)
Gain (dB)	15	15
Gain adjustment (dB)	30	30
Noise figure (dB)	6	6
Max output level *	90	90
Selectivity	20 dB / 10 MHz	20 dB / 10 MHz
Consumption (mA)	100 (24 VDC) from included power supply	
Dimensions	185 x 144 x 71 mm	

* -54 dB / IM3

3 / 4 inputs

Reference	6556A	6557A
Input	3 x UHF	4 x UHF
Frequency range (MHz)	470-862 MHz	470-862 MHz
Clusters	4	6
Bandwidth (MHz)	8-56 (1 to 7 channels)	8-56 (1 to 7 channels)
Gain (dB)	15	15
Gain adjustment (dB)	30	30
Noise figure (dB)	6	6
Max output level *	90	90
Selectivity	20 dB / 10 MHz	20 dB / 10 MHz
Consumption (mA)	150 (24 VDC) from included power supply	
Dimensions (mm)	185 x 144 x 71 mm	

* -54 dB / IM3

PC to Coax Module

Reference	6554
Connectors	2 x F / USB type B (USB cable supplied)
Dimensions	91x41x23 mm

Programmable Active Combiners

6557A

- Active filtering and amplification of signal
- 2 / 3 / 4 inputs
- up to 6 clusters
- 1 to 7 channels bandwidth per cluster
- High selectivity filters
- Accurate equalization of levels
- Power supply included
- Remote programming via PC through coaxial cable
- Easy programming

6554

- Supplied with USB cable

Combiners

2 inputs

Reference	Channels / Insertion loss (dB) * = DC power pass	
1269	VHF* / 0,5	UHF* / 1,0
1281	UHF* / 4,5	UHF* / 4,5
1282	B I-IV* / 1,5	B V* / 1,5
1209A	VHF-UHF* / 4,5	UHF* / 4,5
1200A	FM / 1,0	VHF-UHF (rej.FM)* / 1,0
1292	C 21-34* / 1,5	C 38-69* / 1,5
1216F	C 21-50* / 2,0	C 52-69* / 2,0
1293	C 21-58* / 2,0	C 60-69* / 2,0
1220F	C 21* / 2,0	VHF-UHF* (rej.C 21) / 1,0
1247F	C 41-47* / 2,0	VHF-UHF* (rej.C 41-47) / 1,0
Dimensions	112 x 98 x 56 mm	

3 inputs

Reference	Channels / Insertion loss (dB) * = DC power pass		
1353	B I-FM* / 1,0	B III* / 1,0	UHF* / 2,0
1352	VHF* / 0,5	UHF* / 4,5	UHF* / 4,5
1368	VHF / 0,5	C 21-48* / 2,0	C 51-69* / 2,0
1367	VHF* / 0,5	C 21-69* (rej.C50-56) / 2,0	C 50-56* / 2,0
Dimensions	112 x 98 x 56 mm		

4 inputs

Reference	Channels / Insertion loss (dB) * = DC power pass			
1430F	VHF / 0,5	C 21-27* / 2,0	C 30-38* / 2,0	C 40-69* / 2,0
1442F	VHF / 0,5	C 21-47 / 2,0	C 49-54* / 2,0	C 56-69* / 2,0
1464	B I-FM* / 0,5	B III* / 0,5	UHF* / 3,5	UHF* / 3,5
Dimensions	112 x 98 x 56 mm			

Combiners

- Low loss combiners
- `F ' type connectors
- Wall / mast mounting with strap
- Models with other channels on request

1269

1464

Trap

Reference	Rejected Band / frequency	Rejection	Band pass frequency	Insertion loss	DC pass
6017	GSM / 880-960 MHz	50 dB	40-862 MHz	0,5 dB	yes
Dimensions	116 x 98 x 46 mm				

Attenuator

Reference	Frequency range	Attenuation	Input/output Return loss	DC power pass
6050	5-862 MHz	3 to 18 dB	10 dB	500 mA max.
Dimensions	91 x 41 x 23 mm			

Splitters for outdoor

Resistor type

Reference	Outputs	DC power pass	Bandwidth (MHz)	Insertion loss (dB)	Isolation (dB)
4211	2	1	40-862	6	6
4311	3	1	40-862	9	9
4411	4	1	40-862	12	12
Dimensions	112 x 98 x 56 mm				

Ferrite type

Reference	Outputs	DC power pass	Bandwidth (MHz)	Insertion loss (dB)	Isolation (dB)
4214	2	1	40-862	3,8 - 4,5	20 min.
4414	4	1	40-862	6,7 - 7,9	20 min.
Dimensions	112 x 98 x 56 mm				

Trap

- To reject GSM frequency band to avoid interferences
- Wall / mast mounting with strap

6017

Attenuator

6050

- VHF-UHF attenuator
- Indoor use

Splitters for outdoor

- Resistor type
- 2, 3 or 4 outputs
- Wall / mast mounting with strap

- Ferrite type for a better isolation between outputs
- 2 or 4 outputs
- Wall / mast mounting with strap

4414

Power Supplies

24 Volt

Reference	Output(s)	Insertion loss (dB)	Isolation (dB)	DC out	AC voltage input / power	Current out (mA)	Dimensions
2421	1	0,5 - 1	-	24 V	230V~/10VA	100	137 x 75 x 51 mm
2429	2	3 - 4	20	24 V	230V~/10VA	100	137 x 75 x 51 mm
2430A	2	4 - 5	10	24 V	230V~/10VA	85	115 x 74 x 56 mm
2434	2	4 - 5	10	24 V	230V~/4,8W	150	110 x 94 x 41 mm

5 Volt

Reference	DC voltage out	AC voltage input / power	Current out	Insertion loss	RF connectors	Dimensions
2451	5 V	230V~/4VA	50 mA	1 dB (5-862 MHz)	IEC 9,52 mm male / female	51 x 74 x 77 mm

Power Supplies

- 1 or 2 outputs
- 24 Volt stabilized
- Short circuit protected
- Power led indicator
- Wall mounting with 2 supplied screws

2430A

2421 (1 output)
2429 (2 outputs)

new

- High efficiency
- 2 outputs
- 24 Volt stabilized
- Short circuit protected
- Power led indicator
- Wall / DIN Rail mounting

2434

- Power adapter for DTT preamplifiers

2451

Preamplifiers

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
7101	B I-V	40-862	10-18 adj.	3,5	105	40 DC power pass
7206	B III-IV-V (FM rej.)	40-70 + 130-862	16-18 adj.	3,5	105	40
7210	B III - IV - V	170-862	15	2,0	102	20 / 5 to 24V
7211	VHF + UHF	40-230 + 470-862	10-30 adj 25-40 adj.	3,5	105	65
7310	UHF C 21-69	470-862	18	3,5	96	40
7313	UHF C 21-69	470-862	15	2,0	102	20 / 5 to 24V
7315	UHF C 21-69	470-862	25	1,8	107	45 / 5 to 24V
7316	UHF C 21-69	470-862	25-40 adj.	2,5	105	65
7320	UHF C 21-69	470-862	25-35 adj.	2,0	105	35
Dimensions	112 x 98 x 56 mm					

7322	UHF C 21-69	470-862	10-25 adj.	2,0	105	50
Dimensions	105 x 105 x 37 mm					

UHF DTT line amplifier

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA)
7317	UHF C 21-69	470-862	15	2,0	102	20 / 5 to 24V
Dimensions	72 x 22 x 17 mm					

Preamplifiers

- Low noise preamplifiers
- Wall / mast mounting with strap

7101

new

7322

- Low noise preamplifier
- Adjustable gain
- High selectivity
- Buit-in GSM trap (Ref. 7322)
- Power led indicator
- Wall / mast mounting with strap

7320

7313

- Low noise preamplifier
- To pump up low signals and reject impulse noise in DTT reception
- Power led indicator
- Can be powered with 5 Volt of DVB-T receiver
- Wall / mast mounting with strap

UHF DTT line amplifier

- Low noise line amplifier
- To pump up low signals and reject impulse noise in DTT reception
- Can be powered with 5 Volt of DVB-T receiver

new

7317

Preamplifiers

2 inputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
7401	B III UHF	170-230 470-862	8-28 adj. 28	3,5 3,5	105	40
7403A	B III UHF	170-230 470-862	8-28 adj. 20-35 adj.	3,5 2,0	105	35
7404	VHF UHF	40-230 470-862	10-30 adj. 25-40 adj.	3,5 3,5	105	65
7406	B III UHF	170-230 470-862	10-25 adj. 10-25 adj.	2,5 2,5	105	40
7407	VHF bypass UHF	40-230 470-862	-0,5 28	- 3,5	- 105	40
7430	B III C 21-30 +32-69	170-230 471-549 +559-862	13-28 adj. 15-30 adj. 25-40 adj.	4,0 5,0	105	50
Dimensions	112 x 98 x 56 mm					
7433	FM/DAB bypass UHF	88-240 470-862	-1 10-25 adj.	- 2,0	- 105	50
Dimensions	105 x 105 x 37 mm					
7490	VHF UHF	47-300 470-862	10-30 adj. 25-40 adj.	3,5 3,5	2 outputs 105	65
Dimensions	112 x 98 x 56 mm					

3 inputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
7410	B III UHF UHF	170-230 470-862 470-862	10-30 adj. 25-40 adj. 24-40 adj.	3,5 3,5 3,5	105	75
7415	FM B III UHF	88-108 170-230 470-862	12 10-28 adj. 20-35 adj.	6,5 3,5 3,5	105	50
7417	B I - FM B III UHF	47-108 170-230 470-862	12 10-28 adj. 20-35 adj.	6,5 3,5 3,5	105	50
7422	VHF UHF UHF	40-230 470-862 470-862	10-30 adj. 25-40 adj. 25-40 adj.	3,5 3,5 3,5	105	75
7425	B III C 21-29 C 31-69	170-230 470-541 551-862	10-30 adj. 25-40 adj. 25-40 adj.	3,5 3,5 3,5	105	75
7441	FM B III UHF	88-108 170-230 470-862	10 -5 +10 adj. 10-25 adj.	5,5 5,5 3,5	105	50
7442	VHF UHF (C 62-63 rej.) C 62-63	47-230 470-781+831-862 799-813	10-30 adj. (FM 0-20) 25-40 adj. 25-40 adj.	4 4 3	105	75
7443	VHF UHF (C 51-53 rej.) C 51-53	47-230 470-693+751-862 799-813	10-30 adj. (FM 0-20) 23-38 adj. 25-40 adj.	4 3 3	105	75
Dimensions	112 x 98 x 56 mm					

4 inputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
7455	B I + III FM UHF UHF	47-68+170-230 88-108 470-862 470-862	10-30 adj. 12 25-40 adj. 25-40 adj.	3,5 4,5 3,5 3,5	105	75
7456	FM B III C 21-27 C 29-69	88-108 170-230 471-525 535-862	12 10-30 adj. 20-40 adj. 20-40 adj.	4,5 3,5 3,5 3,5	105	75
Dimensions	112 x 98 x 56 mm					

Preamplifiers

7403A

7433

- Built-in GSM trap
- BIII / DAB bypass

- To combine and amplify signals from different antennas
- High gain with low noise preamplifier
- Wall / mast mounting with strap

7490

7422

7455

Preamplifier & Power Supply KITS

1 input

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
KIT 7206 / 2430A	B I-III-IV-V (FM rej.)	40-70 + 130-862	16-28 adj.	3,5	105	45
KIT 7316 / 2430A	UHF C 21-69	470-862	25-40 adj.	2,5	105	65
KIT 7320 / 2430A	UHF C 21-69	470-862	25-35 adj.	2,0	105	35
KIT 7322 / 2434	UHF C 21-69	470-862	10-25 adj.	2,0	105	50

2 inputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
KIT 7401 / 2430A	B III UHF	170-230 470-862	8-28 adj. 28	3,5 3,5	105	40
KIT 7403A / 2430A	B III UHF	170-230 470-862	8-28 adj. 20-35 adj.	3,5 3,5	105	35
KIT 7404 / 2430A	VHF UHF	40-230 470-862	10-30 adj. 25-40 adj.	2,0	105	65
KIT 7406 / 2430A	B III UHF	170-230 470-862	10-25 adj. 10-25 adj.	2,5 2,5	105	40
KIT 7430 / 2430A	B III C 21-30 + 32-69	170-230 471-549 + 559-862	13-28 adj. 15-30 adj. 25-40 adj.	4,0 5,0	105	50
KIT 7433 / 2434	BIII / DAB bypass UHF C 21-69	88-240 470-862	-1 10-25 adj.	2,0	105	50

2 inputs / 2 outputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
KIT 7490 / 2430A	VHF UHF	47-300 470-862	10-30 adj. 25-40 adj.	3,5 3,5	105	65

3 inputs

Reference	Band	Frequency (MHz)	Gain (dB)	Noise figure (dB)	Max. output level (dBµV)	Consumption (mA) / 24 V
KIT 7410 / 2430A	B III UHF UHF	170-230 470-862 470-862	10-30 adj. 25-40 adj. 25-40 adj.	3,5 3,5 3,5	105	60
KIT 7415 / 2430A	FM B III UHF	88-108 170-230 470-862	12 10-28 adj. 20-35 adj.	6,5 3,5 3,5	105	50
KIT 7417 / 2430A	B I - FM B III UHF	47-108 170-230 470-862	12 10-28 adj. 20-35 adj.	6,5 3,5 3,5	105	50
KIT 7422 / 2430A	VHF UHF UHF	40-230 470-862 470-862	10-30 adj. 25-40 adj. 25-40 adj.	3,5 3,5 3,5	105	75

Preamplifier & Power Supply KITS

KIT 7320 / 2430A

new

KIT 7322 / 2434

KIT 7433 / 2434

Wide Band Indoor Amplifiers

Reference	7720
Frequency range (MHz)	47-862
Adjustable gain (dB)	13-28
Noise figure (dB)	4,0
Max. output level DIN45004B (dBµV)	98
Return loss (input / output) (dB)	10
Isolation between outputs (dB)	15
Power	230V~/10VA
Dimensions (mm)	115 x 74 x 56

VHF-UHF Indoor Amplifiers

Reference	7708 / 7708 UK	7718	7722
Frequency range (MHz)	40-300 + 470 862		40-300 + 470-862
Adjustable gain (dB)	VHF: 0-12 / UHF: 7-22		VHF: 8-28 / UHF: 15-30
Noise figure (dB)	VHF: 5,5 / UHF: 5,0		4
Max. output level DIN45004B (dBµV)	VHF: 100 / UHF: 100		107
Return loss (input / output) (dB)	10		10
Isolation between outputs (dB)	VHF: 15 typ. / UHF: 18 typ.		15
Remote power	no	24V / 55 mA	no
Power	230-240V~/ 9VA		230 V~/ 6,5VA
Dimensions (mm)	102 x 138 x 48		102 x 76 x 54

Split Band Indoor Amplifiers

Reference	7715	7709	7710 / 7710 UK
Number of output(s)	1	2	4
Frequency range (MHz)	40-300 + 470-862	40-300 + 470-862	40-300 + 470-862
Adjustable gain(dB)	VHF: 0-22 UHF: 17-32	VHF: 0-18 UHF: 13-28	VHF: 0-13 UHF: 8-23
Noise figure (dB)	VHF: 4,5 / UHF: 4,5	VHF: 4,5 / UHF: 4,5	VHF: 4,5 / UHF: 4,5
Max. output level DIN45004B (dBµV)	VHF: 113 / UHF: 110	VHF: 109 / UHF: 106	VHF: 104 / UHF: 101
Return loss (input / output) (dB)	10	10	10
Isolation between outputs (dB)	-	VHF: 25 typ. UHF: 20 typ.	VHF: 25 typ. UHF: 20 typ.
Power	230V~/ 6,5 VA	230V~/ 6,5 VA	230-240V~/ 6,5 VA
Dimensions (mm)	102 x 138 x 48	102 x 138 x 48	102 x 138 x 48

Wide Band Indoor Amplifiers

- 2 outputs
- Power led indicator
- Wall mounting with 2 supplied screws

7720

VHF-UHF Indoor Amplifiers

- 2 outputs
- Separate adjustment for VHF and UHF gain
- Power led indicator
- Ref. 7718 has 24V remote power supply for preamplifier
- Wall mounting with 2 supplied screws

7708

7722

Split Band Indoor Amplifiers

- 1, 2 or 4 outputs
- High gain
- Input/output(s) DC power pass
  (for application with IR modulator Ref. 8155KIT)
- Power led indicator
- Wall mounting with 2 supplied screws

7710

Indoor Amplifiers with return path

Reference	7716	7713
Number de output(s)	1	4
Frequency range Forward path (MHz)	86-862	86-862
Frequency range Return path (MHz)	5-65	5-65 (2 outputs)
Gain Forward path (dB)	10-30 adj.	4 ± 1
Slope adjustment (dB)	0-15	-
Return path insertion loss (dB)	-1	-4
Noise figure (dB)	4,0	5,5
Max. output level DIN45004B (dBµV)	108	104
Return loss (input /output) (dB)	12 min.	15 min.
Isolation between outputs (dB)	-	20 min.
Power	230 V~/8VA	230 V~/5VA
Dimensions (mm)	102 x 138 x 48	102 x 138 x 48

3 inputs

Multiband amplifiers

Reference	7760A			7761A		
Outputs	1			6		
Frequency range (MHz)	BI-II: 47-88	B III: 170-240	UHF: 470-862	BI-II: 47-88	B III: 170-240	UHF: 470-862
Adjutable gain (dB)	8-28	8-28	20-36	0-20	0-20	12-28
Noise figure (dB)	8	8	5	8	8	5
Max. input level (dBµV)	97	97	86	97	97	86
Max. output level (dBµV)	105	105	110	97	97	102
Return loss in/out (dB)	>10			>10		
Isolation between outputs (dB)	-			>15		
Selectable remote power	-	-	yes	-	-	yes
Consumption (mA)	70			70		
Power supply (20-24 VDC)	from power adapter 230 V~ / jack Ø 2,1mm (included) or from output			from power adapter 230 V~ / jack Ø 2,1mm (included) or from outputs (diode protected)		
Dimensions (mm)	158x98x51			158x98x51		

4 inputs

Reference	7762A			7763A		
Outputs	1			6		
Frequency range (MHz)	BI-II: 47-88	B III: 170-240	UHF1 / UHF2: 470-862	BI-II: 47-88	B III: 170-240	UHF1 / UHF2: 470-862
Adjutable gain (dB)	8-28	8-28	16-32	0-20	0-20	8-24
Noise figure (dB)	8	8	5	8	8	5
Max. input level (dBµV)	97	97	86	97	97	86
Max. output level (dBµV)	105	105	106	97	97	98
Return loss in/out (dB)	>10			>10		
Isolation between outputs (dB)	-			>15		
Selectable remote power	-	-	yes	-	-	yes
Consumption (mA)	70			70		
Power supply (20-24 VDC)	from power adapter 230 V~ / jack Ø 2,1mm (included) or from output			from power adapter 230 V~ / jack Ø 2,1mm (included) or from outputs (diode protected)		
Dimensions (mm)	158x98x51			158x98x51		

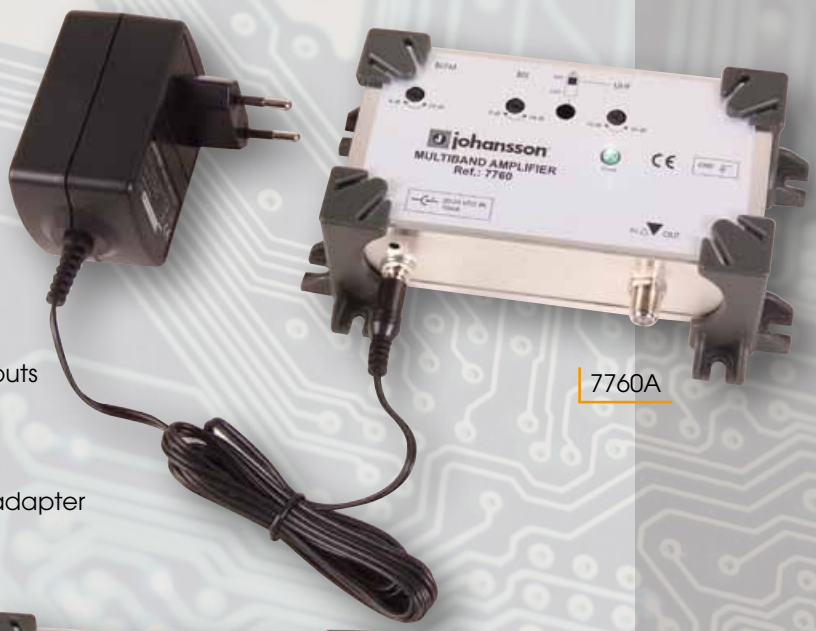
Indoor Amplifiers with return path

7716

- Passive return path 5-65 MHz
- Power led indicator
- Wall mounting with 2 supplied screws

Multiband amplifiers

new



7760A

- Multi-room amplifiers 3 and 4 inputs
- 1 or 6 outputs
- Split band amplifier with UHF interstage attenuator
- Powered from included power adapter or from outputs

7763A

DiSEqC Switches

Reference	9208	9215	9210
Number of inputs	2	3	4
Frequency range	950-2150 MHz	950-2150 MHz	950-2150 MHz
Insertion loss	2 dB max.	4 dB max.	4 dB max.
Isolation	15 dB min.	15 dB min.	30 dB min.
Switching control	Tone Burst and DiSEqC 1.0	DiSEqC 1.0	DiSEqC 1.0
Consumption	25 mA max.	25 mA max.	25 mA max.
Dimensions	112 x 98 x 56 mm	112 x 98 x 56 mm	112 x 98 x 56 mm

Reference	9232	9234
Number of inputs	2	4
Frequency range	950-2150 MHz	950-2150 MHz
Insertion loss	2,5 dB max.	4 dB max.
Isolation	15 dB min.	15 dB min.
Switching control	Tone Burst and DiSEqC 1.0	DiSEqC 1.0
Consumption	25 mA max.	25 mA max.
Dimensions	105 x 105 x 37 mm	105 x 105 x 37 mm

Wide band DiSEqC Switches

Reference	9222	9223	9224
Frequency range	2	3	4
Insertion loss	5-2150 MHz	5-2150 MHz	5-2150 MHz
Insertion loss	4 dB max.	4 dB max.	4 dB max.
Isolation	30 dB min.	30 dB min.	30 dB min.
Switching control	Tone Burst and DiSEqC 1.0/2.0	DiSEqC 1.0/2.0	DiSEqC 1.0/2.0
Consumption	30 mA max.	30 mA max.	30 mA max.
Dimensions	112 x 98 x 56 mm	112 x 98 x 56 mm	112 x 98 x 56 mm

DiSEqC Switches + Terrestrial

Reference	9209	9213	9214
Inputs	2 SAT + 1 TERR	3 SAT + 1 TERR	4 SAT + 1 TERR
Switching control	Tone Burst and DiSEqC 1.0	DiSEqC 1.0/1.1	DiSEqC 1.0/1.1
Frequency range	Terr.: 40-860 MHz - Sat.: 950-2150 MHz		
Insertion loss	Terr.: 2 dB - Sat.: 3 dB ± 1 dB		
Isolation	Terr.:/Sat.: 30 dB min. - Sat./Terr.: 20 dB min.		
Isolation between inputs	15 dB min.		
DC power pass on terr. input	selectable		
Consumption	25 mA max.		
Dimensions	122 x 98 x 56 mm		

DiSEqC Switches

- 2 and 4 inputs
- Zamak diecast housing
- Indoor / outdoor use

Wide band DiSEqC Switches

- Frequency 5-2150 MHz
- High isolation
- DiSEqC 2.0

9222

9208

9210

DiSEqC Switches + Terrestrial

9214

DiSEqC Option Switches

Reference	9219	9216A
Inputs	2 x SAT	input 1 : SAT + Terrestrial input 2 : SAT
Frequency range	950-2150 MHz	Sat.: 950-2150 MHz Terr.: 5-862 MHz
Insertion loss	2 dB max.	Sat.: 4 dB ± 1 - Terr.: 2,5 dB
Isolation between inputs	15 dB	25 dB
Bypass control	22 kHz universal band control, 13/18V polarization control	
Switching control	Option A/B DiSEqC 1.0/1.1	
Consumption	25 mA max	
Dimensions	112 x 98 x 56 mm	

Twin DiSEqC Switch 5/2

Reference	9920
Frequency range	Sat.: 950-2150 MHz - Terr.: 5-862 MHz
Insertion loss	Sat.: 4 dB max. - Terr.: 8 dB max.
Switching control	Tone Burst and DiSEqC 1.0/1.1
Isolation each SAT in / out	40 dB min.
Isolation SAT/TERR.	30 dB min.
Current	20 mA per receiver
DC power pass on SAT inputs	350 mA max.
Dimensions	112 x 98 x 56 mm

DiSEqC Option Switches

new

- This 2 inputs single user OPTION switch allows to select up to 8 universal LNBS by means of 4 inputs switches ref. 9210.

9219

- This unit allows to control 2 multiswitches for the reception of 12 polarities (3 satellites) or 16 polarities (4 satellites).
- In DTH installation , it allows to switch 1 monobloc LNB and 1 universal LNB (ex. Astra/Hot Bird and Atlantic Bird 3)

9216A

Twin DiSEqC Switch 5/2

- Switch for 2 TWIN LNB's combined with terrestrial

9920

TV-SAT Combiners

Reference	Band / Insertion loss		Isolation	Note	Dimensions
9501	VHF-UHF 5-862 MHz / 1 dB	SAT* 950-2150 MHz / 2,0 dB	> 15 (Terr.) > 30 (Sat.)	indoor use	61 x 51 x 16 mm
9506	VHF-UHF 5-862 MHz / 2 dB	SAT* 950-2150 MHz / 2,5 dB	> 15 (Terr.) > 40 (Sat.)	High isolation wall/mast mounting	112 x 98 x 56 mm
9507	VHF-UHF* 5-862 MHz / 2 dB	SAT* 950-2150 MHz / 2,5 dB	> 15 (Terr.) > 40 (Sat.)	High isolation wall/mast mounting	112 x 98 x 56 mm
9509	VHF-UHF 5-862 MHz / 2 dB	SAT* 950-2150 MHz / 2,5 dB	> 15 (Terr.) > 40 (Sat.)	High isolation indoor use	90 x 41 x 34 mm

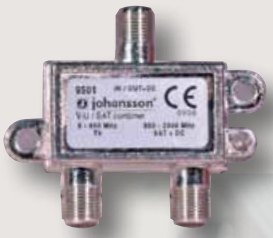
* = DC power pass

Splitters 5-2300 MHz

Reference	4502	4503	4504	4506	4508
Way	2	3	4	6	8
Frequency (MHz)	5-2300	5-2300	5-2300	5-2300	5-2300
Insertion loss (dB)	6,5	11	11	16	18
Isolation (dB)	16	20	20	20	20
Return loss in / out (dB)	10	10	10	10	10
DC power pass (in / out)	2	3	4	6	8
Dimensions (mm)	47 x 56 x 21	47 x 77 x 21	47 x 77 x 21	57 x 120 x 25	57 x 120 x 25

TV-SAT Combiners

- TV/SAT combiners-diplexers for indoor or outdoor use
- 1 or 2 DC power pass
- High isolation to suppress interfering signals in the VHF-UHF band when high band of the universal LNB is selected



9501

9509

9506

Splitters 5-2300 MHz

- 2, 3, 4, 6 and 8 way
- Low insertion loss
- Nickel plated zinc diecast housing
- "F" type connectors
- All ports DC power pass (diodes protected)

4502

4503

4504

4506

4508

Accessories

Attenuator

Reference	Frequency range	Attenuation	DC power pass	Dimensions
9609	700-2150 MHz	0-20 dB adjustable	yes	77 x 22 x 17 mm

22 kHz tone blocking filter

Reference	Frequency range	Inserion loss	DC loss	Dimensions
9613	950-2150 MHz	1 dB	0,5 V typ.	77 x 22 x 17 mm

DC Block - DC Insertor

Reference	Frequency range	Insertion loss	DC power pass	Dimensions
9602	40-2150 MHz	1 dB max.	500 mA max.	61 x 51 x 16 mm

DC Block

Reference	Frequency range	Attenuation	Dimensions
9631	5-2300 MHz	1 dB max.	72 x 22 x 17 mm

F-F Galvanic Isolator

Reference	Frequency range	Galvanic isolation	Capacitor value	Dimensions
9620	5-2150 MHz	400 VDC - 800 VDC peak	center: 1 nF - shield: 4 nF	51 x 14 x 14 mm

Accessories

Attenuator

9609

- 0-20 dB adjustable attenuation

22 kHz tone blocking filter

9613

- 22 kHz suppressor for low band reception of universal LNB

DC Block - DC Insertor

- DC voltage separator / DC voltage supplier for LNB

9602

DC Block

9631

F-F Galvanic Isolator

- High galvanic isolator for both center and shield

9620

Sloped Gain Line Amplifiers

Reference	9604	9617	9637
Frequency range	950-2150 MHz	40-2150 MHz	40-3550 MHz
Gain typ.	13 dB (950 MHz) 18 dB (2150 MHz)	9 dB (40 MHz) 12 dB (860 MHz) 13 dB (950 MHz) 16 dB (2150 MHz)	7 dB (40 MHz) 10 dB (860-850 MHz) 13 dB (2150 MHz) 15 dB (3550 MHz)
Noise figure	4 dB	4 dB	7 dB
Max. output level	110 dBµV	110 dBµV	110 dBµV
Power supply	13-18 V /30mA	13-18 V /30mA	13-18 V /30mA
DC power pass	500 mA max.	500 mA max.	500 mA max.
Dimensions	72 x 22 x 17 mm	72 x 22 x 17 mm	77 x 21 x 15 mm

Adjustable Active Line Equalizer

Reference	Frequency range	Gain / Attenuation	Slope	in / out Return loss	VHF - UHF Filter	Max. Output level	Consumption	DC power pass
9626	950-2150 MHz	-18 to + 11 dB	0-15 dB	> 10 dB	min. 30 dB	88 dBµV	45 mA / 18 V	yes

Line Amplifier with terrestrial bypass

Reference	9632
Frequency range	5-860 / 950-2150 MHz
Insertion loss	5-860 MHz / 4.0 dB max.
Gain	15-25 dB slope
Noise figure	8 dB max.
Max. output level	107 dBµV (-35 dB IM3/2c)
DC power pass	500 mA max.
Input / output return loss	10 dB min.
Power supply	8-20 V
Consommation	50 mA
Dimensions	129 x 42 x 55 mm

Sloped Gain Line Amplifiers

9604

- Sloped gain for compensating coaxial cable losses
- Wide band for terrestrial and satellite frequencies (Ref. 9617 and 9637)

Adjustable Active Line Equalizer

9626

- Equalizing, leveling and compensating the frequency spectrum to optimal adaptation especially for digital receivers in individual and multi satellite systems
- High dynamic range for gain, attenuation and slope
- Excellent in- and output return loss
- VHF-UHF and IF tuner (479 MHz) built-in filter

Line Amplifier with terrestrial bypass

9632

- Amplifier 950-2600 MHz with high quality F connectors (gold plated contact and PTFE teflon dielectric)

TV-SAT indoor amplifiers

1 output

Reference	9661	
Frequency range	TV.: 47-862 MHz	SAT.: 950-2150 MHz
Adjustable gain	7-22 dB	10-25 dB
Noise figure	6 dB	7,5 dB
Max. input level	92 dBµV	93 dBµV
Max. output level	105 dBµV (-60 dB IM3/2c)	108 dBµV (-35 dB IM3/2c)
Return loss input / output	8 dB / 10 dB	
DC power pass	yes (500 mA max.)	
Power	230 V~/8VA	
Dimensions	102 x 138 x 48 mm	

2 outputs

Reference	9662	
Frequency range	TV.: 47-862 MHz	SAT.: 950-2150 MHz
Adjustable gain	3-18 dB	5-20 dB
Noise figure	6 dB	7,5 dB
Max. input level	92 dBµV	88 dBµV
Max. output level	101 dBµV (-60 dB IM3/2c)	103 dBµV (-35 dB IM3/2c)
Return loss input / outputs	8 dB / 10 dB	
DC power pass	yes (500 mA max.) 2 outputs Diode protected	
Power	230 V~/8VA	
Dimensions	102 x 138 x 48 mm	

4 outputs

Reference	9664	
Frequency range	TV.: 47-862 MHz	SAT.: 950-2150 MHz
Adjustable gain	0-14 dB	1-16 dB
Noise figure	6 dB	7,5 dB
Max. input level	92 dBµV	84 dBµV
Max. output level	97 dBµV (-60 dB IM3/2c)	99 dBµV (-35 dB IM3/2c)
Return loss input / outputs	8 dB / 10 dB	
DC power pass	yes (500 mA max.) 4 outputs Diode protected	
Power	230 V~/8VA	
Dimensions	102 x 138 x 48 mm	

TV-SAT indoor amplifiers

- 1, 2 or 4 outputs
- Separated adjustments for TV and SAT in order to optimize signal equalization
- TV-SAT split band amplifier
- Terrestrial and Satellite Digital compatible
- Power led indicator
- Wall mounting with 2 supplied screws

9664

UHF PLL Modulator

Reference	8150 / 8150 UK
System	PAL-G, PAL-I, SECAM-L, NTSC-M
Frequency range	CCIR UHF Channel 21-68 , preset on Ch.40
Output level	71 dBµV ± 4
Bypass	47-862 MHz / 0 ± 3 dB
Connectors	1 male / 1 female IEC 9,52 mm - 2 Scart sockets
Power	230-240 V~ / 6,5W
Dimensions	104 x 128 x 48 mm

Double PLL Modulator

Reference	8165 / 8165 UK
System	PAL-BG / PAL-I / SECAM-L
Frequency range	447,25 – 855,25 MHz - UHF C.21-69 and 3 Hyperband channels
Modulation	Double side band / Mono
Output level	67- 87 dBµV adjustable
Antenna input	47-862 MHz (with DC power pass) / Gain : 2 dB
AV connectors	2 scarts fully wired sockets with switchable pin 8 link
RF connectors	2 x F Female
Consumption	350 mA / 5 VDC
Power supply	Power adapter (230-240 V~ / 5 VDC) / jack Ø 2,1mm
Dimensions	180 x 115 x 45 mm

UHF PLL Modulator

8150

- UHF modulator with PLL frequency synthesizer
- Multi TV system : PAL, SECAM, NTSC
- Two SCART sockets with bypass VCR
- Multifunctional DIP switches for :
  - channel adjustment
  - standard system solution
  - test pattern selection
- Built-in power supply with LED indicator

Double PLL Modulator

- Double modulator with PLL frequency synthesizer
- UHF and 3 hyperband channels
- Multi TV system : PAL BG, PAL I, SECAM L
- Built-in RF amplifier with adjustable output level 67-87 dBµV
- Bypass VHF-UHF input for existing antenna
- 2 fully wired scart sockets
- Test pattern generator
- 2 digits display
- External power adapter

8165

UHF PLL Modulator with infrared transmission

Reference	8155 KIT
Modulator	
System	PAL-G, PAL-I, SECAM-L, NTSC-M
Frequency range	CCIR UHF Channel 21-68 , preset on Ch.40
Output level	71 dBµV ± 4
Bypass	47-862 MHz / 0 ± 3 dB
Connectors	1 male / 1 female IEC 9,52 mm - 2 Scart sockets
Power	230V~ /10W
Output power supply	8 VDC to the receiver (25mA max.)
Dimensions	104 x 128 x 48 mm

Receiver	
Power supply	8 VDC / 10 mA , powered by the modulator
Insertion loss	1 dB max. (5-862 MHz)
Connectors	2 x 'F' female
Dimensions	108 x 58 x 26 mm

Installation can be extended with an other extra receiver (ref. 8155R)

Splitter

Reference	Outputs	DC power pass	Frequency (MHz)	Insertion loss (dB)	Isolation (dB)
4205	2	2	40-862	3,8	20 min.
Dimensions	61 x 51 x 16 mm				

UHF PLL Modulator with infrared transmission

- UHF modulator with PLL frequency synthesizer
- Multi TV system : PAL, SECAM, NTSC
- Two SCART sockets with bypass VCR
- Multifunctional DIP switches for :
  - channel adjustment
  - standard system solution
  - test pattern selection
- Built-in power supply with LED indicator
- Infrared signal transmission via coaxial cable

8155 KIT

Splitter

- 2 DC power pass for additional IR receiver connection (ref.8155R)

Notes

Notes

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