johansson
since 1962

Catalogue 2021 - 2022

ENGLISH VERSION

How the UnitronGroup envisions the future.

Innovation
Collaboration
Sustainability

our flexible team offers you
for **every evolution** a **custom made solution**

Innovation in every vein
Innovation is incorporated into our entire corporation. For us, innovation means doing our own research and investing in R&D to market unique products. This makes us often the first ones in the market and it ensures our customers that their solution is state-of-the-art and will give them a competitive advantage. Automation and robotisation play an important role in manufacturing though we also offer manual assembly, or a mix of both.

Don't go at it alone
To innovate, you need a combination of different skill sets and expertises. That's why UnitronGroup - specialised in hardware RF design and with our own manufacturing capacity - collaborates with different knowledge partners. Both suppliers and chip vendors as universities and research centers, have helped us reach new heights for our customers.

Practice what you preach
Innovation and sustainability are present at every level of our company. UnitronGroup is a second generation family business, supporting many local youth initiatives, sport clubs and good causes. For our packaging we are evolving away from single use plastics, towards cardboard and paper. We are fueled by green energy and are currently electrifying our car park, fading out diesel cars.

Elisabeth Lamaire & Philippe Lamaire
Managing Directors

About the Johansson brand

World famous high quality TV equipment since 1962
The technology market keeps moving forward. So does Johansson, with a range of over 250 telecommunication, multimedia and IoT solutions. Currently selling in more than 70 countries, we reach tens of millions of TV viewers on a daily basis. Perhaps even you?

Patented innovations that will boost your business
The Profiler Revolution proves that we revolutionized the terrestrial filter-amplifier technology, making us the reference in the market. Johansson is also the market leader for other technologies, such as dSCR, wideband distribution and RED-compliant 5G amplifiers. As a market leader in multiple technologies, we take technology to higher levels, setting new standards and offering the best solutions all over the globe.

All Johansson branded products are developed, manufactured and distributed by UnitronGroup. This provides our customers with a quality label for state-of-the-art technology and reliability that has been recognized in the industry for over 55 years.

Offering you high quality. Today, tomorrow and beyond
Since our origins as masters in RF solutions, we have evolved and expanded our engineering team with highly skilled software and mechanical designers. This unrivalled expertise in reception and signal treatment for satellite and terrestrial TV signals guarantees our customers that buying a Johansson product is buying a state-of-the-art piece of electronic equipment that will last for years.

In this catalogue


FM
V/U 1
V/U 2
V/U 3
V/U 4
12-24 VDC
johansson
the original
PATENTED
PROFILER REVOLUTION
REF. 6700
Manual:
TEST
(-30 dB)
Digital Terrestrial
100-240V~
50-60Hz / 15W
OUT
(MAX. 113dBµV)
SD

Profiler Revolution

Revolutionary and patented technology

The market leading and **patented Johansson Profilers** are a range of programmable filter-amplifiers. The signals coming from multiple antennas can be combined, filtered, amplified and converted. This offers the best possible signal for distribution of TV throughout the building. The profilers are very flexible and can be configured to your specific needs.

We proudly present you our Profiler Revolution. This amazing range of products has no equivalent on the market. The revolutionary technology will make your terrestrial installations much more successful.

Profiler Revolution 6700

The **Johansson Profiler Revolution** has no equivalent on the market due to its revolutionary technology. As the market leader in digital terrestrial programmable filter **amplifier technology**, the Profiler Revolution has already been sold in more than 30 countries.

- programmable terrestrial filter amplifier
- 5 inputs: 4 VHF(DAB)/UHF and 1 FM
- read-out of input level strength: no need for field strength meter
- can process and convert more than 50 channels (32 filters)
- sharpest filters on the market (50 dB on adjacent channels)
- real-time AGC on all individual multiplexes (>75 dB)
- flex matrix: complete flexibility in assigning filters from any input
- made in Europe, for worldwide application
- the Profiler Revolution facilitates straightforward configuration and is the most cost-efficient Profiler on the market
- configuration possible in different languages (English, French, Italian, Spanish)
- **6700 with SAT input: Ref. 6702 (see SAT specs)**

Specifications 6700(UK)

Inputs	-	4 VHF/UHF + 1FM
Outputs	-	1 main (FM-VHF-UHF) + 1 test port (-30dB)
Frequency range	MHz	FM: 88 - 108 I VHF: 174 - 240 I UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694, 790 or OFF
Input level	dBµV	FM: 37 - 77 I VHF: 40* - 109 I UHF: 40* - 109 (* For 64QAM with code rate 3/4)
FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60dB/IM3)	dBµV	120
VHF/UHF output power (35dB/IM3)	dBµV	131
VHF/UHF output power with 1 MUX	dBµV	118
VHF/UHF output power with 6 MUX	dBµV	113
VHF/UHF output power with 15 MUX	dBµV	109
VHF/UHF output power with 32 MUX	dBµV	106
Conversion	-	Yes (from any VHF-UHF channel to any VHF-UHF channel)
Add channels	-	Per 1, 2, 3, 4, 5 or 6 MUXes
Number of channels	-	More than 50 (32 filters)
Gain	dB	FM: 35 I VHF: >75 I UHF: >75
Gain adjustment	dB	FM: 20 I VHF/UHF: Channel AGC
General attenuator	dB	20
VHF/DAB attenuator	dB	15
Slope adjustment	dB	15
Selectivity	dB/1MHz	50
Output MER	dB	VHF: 35 I UHF: 35
ESD protection	-	All inputs
Remote voltage for preamp Remote current	V mA	12 or 24 100 (total for the 4 inputs)
SD port	-	Yes (for copy configuration)
Operating temperature	°C	-5 to +50
Power Supply Power Consumption	Vac W	100 - 240 15
Dimensions	mm	217 x 165 x 59
Weight	kg	0,8

SAT specs 6702
Frequency range: 950 - 2400 MHz
Input level: 40 - 95 dBµV
Output power (-35dBc/IM3 2 carriers): 119 dBµV
Gain: 40 dB
Gain adjustment: 20 dB
Noise figure: 8 dB
Slope adjustment: 12 dB
Selectivity: 40 dB (@ 862 MHz)
DC @ SAT input: 13V/18V/Bypass & 0/22kHz
DC Load current: 300 mA

Profiler Revolution Lite 6701

The **Johansson Profiler Revolution Lite** has no equivalent on the market due to its revolutionary technology. As the market leader in digital terrestrial programmable filter **amplifier technology**, the Profiler Revolution has already been sold in more than 30 countries.

- programmable terrestrial filter amplifier
- 5 inputs: 4 VHF(DAB)/UHF and 1 FM
- read-out of input level strength: no need for field strength meter
- can process and convert more than 50 channels
- can convert a wide selection of channels
- sharpest filters on the market (50 dB on adjacent channels)
- real-time AGC on all individual multiplexes (>65 dB)
- flex matrix: complete flexibility in assigning filters from any input
- made in Europe, for worldwide application
- the Profiler Revolution facilitates straightforward configuration and is the most cost-efficient Profiler on the market
- configuration possible in different languages (English, French, Italian, Spanish)

Specifications 6701

Inputs	-	4 VHF/UHF + 1FM
Outputs	-	1 main (FM-VHF-UHF) + 1 test port (-30dB)
Frequency range	MHz	FM: 88 - 108 I VHF: 174 - 240 I UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694, 790 or OFF
Input level	dBµV	FM: 37 - 77 I VHF: 40* - 109 I UHF: 40* - 109 (* For 64QAM with code rate 3/4)
FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60dB/IM3)	dBµV	117
VHF/UHF output power (35dB/IM3)	dBµV	128
VHF/UHF output power with 1 MUX	dBµV	113
VHF/UHF output power with 6 MUX	dBµV	110
VHF/UHF output power with 15 MUX	dBµV	107
VHF/UHF output power with 32 MUX	dBµV	104
Conversion	-	Yes (from any VHF-UHF channel to any VHF-UHF channel)
Add channels	-	Per 1, 2, 3, 4, 5 or 6 MUXes
Number of channels	-	More than 50 (32 filters)
Gain	dB	FM: 35 I VHF: >75 I UHF: >75
Gain adjustment	dB	FM: 20 I VHF/UHF: Channel AGC
General attenuator	dB	20
VHF/DAB attenuator	dB	15
Slope adjustment	dB	15
Selectivity	dB/1MHz	50
Output MER	dB	VHF: 35 I UHF: 35
ESD protection	-	All inputs
Remote voltage for preamp Remote current	V mA	12 or 24 100 (total for the 4 inputs)
SD port	-	Yes (for copy configuration)
Operating temperature	°C	-5 to +50
Power Supply Power Consumption	Vac W	100 - 240 15
Dimensions	mm	217 x 165 x 59
Weight	kg	0,8

Profiler Revolution

Patented technology

We are proud to announce that the Profiler Revolution family is patented.
This is a sign of our innovative and market leading approach (US10616637B2 - EP3253049B1).

Profino Revolution Plus 6711

The **Johansson Profino Revolution Plus** has no equivalent on the market due to its revolutionary technology. As the market leader in digital terrestrial programmable filter **amplifier technology**, the Profino Revolution has already been sold in more than 30 countries.

- programmable terrestrial filter amplifier
- 4 inputs: 1 FM + 1 DAB/VHF + 2 UHF
- read-out of input level strength: no need for field strength meter
- can process and convert 30 channels
- sharpest filters on the market (50 dB on adjacent channels)
- real-time AGC on all individual multiplexes
- flex matrix: complete flexibility in assigning filters from any input
- the Profino Revolution Plus facilitates straightforward configuration and is the most cost-efficient Profiler on the market
- **equalize and optimize terrestrial signals for your optical installation** (70 dBµV output power is optimal: you might use the test port (-30 dB)
- **6711 with SAT input: Ref. 6713 (see SAT specs)**

Specifications 6711(UK)

Inputs	-	1FM + 1 DAB/VHF + 2 UHF
Outputs	-	1 main (FM-DAB-VHF-UHF) + 1 test port (-30dB)
Frequency range	MHz	FM: 88 - 108 I VHF: 174 - 240 I UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694, 790 or OFF
Input level	dBµV	FM: 37 - 77 I VHF: 45* - 109 I UHF: 45* - 109 (* For 64QAM with code rate 3/4)
FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60dB/IM3)	dBµV	114
VHF/UHF output power (35dB/IM3)	dBµV	125
VHF/UHF output power with 1 MUX	dBµV	108
VHF/UHF output power with 6 MUX	dBµV	107
VHF/UHF output power with 15 MUX	dBµV	105
Conversion	-	Yes (from any VHF-UHF channel to any VHF-UHF channel)
Add channels	-	Per 1, 2, 3, 4, 5 or 6 MUXes
Number of channels	-	More than 50 (15 filters)
Gain	dB	FM: 35 I VHF: >60 I UHF: >60
Gain adjustment	dB	FM: 20 I VHF/UHF: Channel AGC
General attenuator	dB	20
VHF/DAB attenuator	dB	15
Selectivity	dB/1MHz	50
Return Loss	dB	10
Output MER	dB	VHF: 35 I UHF: 35
ESD protection	-	All inputs
Remote voltage for preamp Remote current	V mA	12 or 24 100 (total for the 4 inputs)
Operating temperature	°C	-5 to +50
Power Supply Power Consumption	Vac W	100 - 240 15
Dimensions	mm	217 x 165 x 59
Weight	kg	0,8

SAT specs 6713
Frequency range: 950 - 2400 MHz
Input level: 40 - 95 dBµV
Output power (-35dBc/IM3 2 carriers): 119 dBµV
Gain: 40 dB
Gain adjustment: 20 dB
Noise figure: 8 dB
Slope adjustment: 12 dB
Selectivity: 40 dB (@ 862 MHz)
DC @ SAT input: 13V/18V/Bypass & 0/22kHz
DC Load current: 300 mA


OPTICAL INPUT
V
H
dSCR/legacy Qua
Optical Conve
REF. 4032
DC INPUT
20V
8W
Optical wavelength
Optical input level
Frequency range RF output
1310nm (V) - 1330nm (H) - 1
-14 to +6 dBm
5 - 862 / 290 - 2340 MH
TERR.
+
OUT 1
TERR.
+
OUT 2
VL

Fiber Optical Distribution

New fiber distribution range

We proudly present our new **fiber distribution range**: an easy-to-install solution to equip buildings with a fiber system or to replace traditional coaxial systems by a compact fiber system. This results in longer distance reach, lower signal degradation and lower equipment costs. These budget friendly products solve cable losses in large MDU's, ideal for high buildings, tourist areas, compounds, etc.

We offer an end-to-end solution starting from the LNB over fiber to the STB.
Our range includes:
- Fiber Headend with satellite wideband and terrestrial inputs
- Fiber receivers with satellite wideband and terrestrial outputs
- Fiber Termination Units with integrated SCR technology

The system is compatible with our new range of wideband dSCR multiswitches. It supports huge installations. In combination with our AGC/ASC wideband amplifier (ref. 9657) or our compact satellite convertor (ref. 9780), up to 128 passive splits can be reached.
All our products are compatible with single mode SC/APC cables.

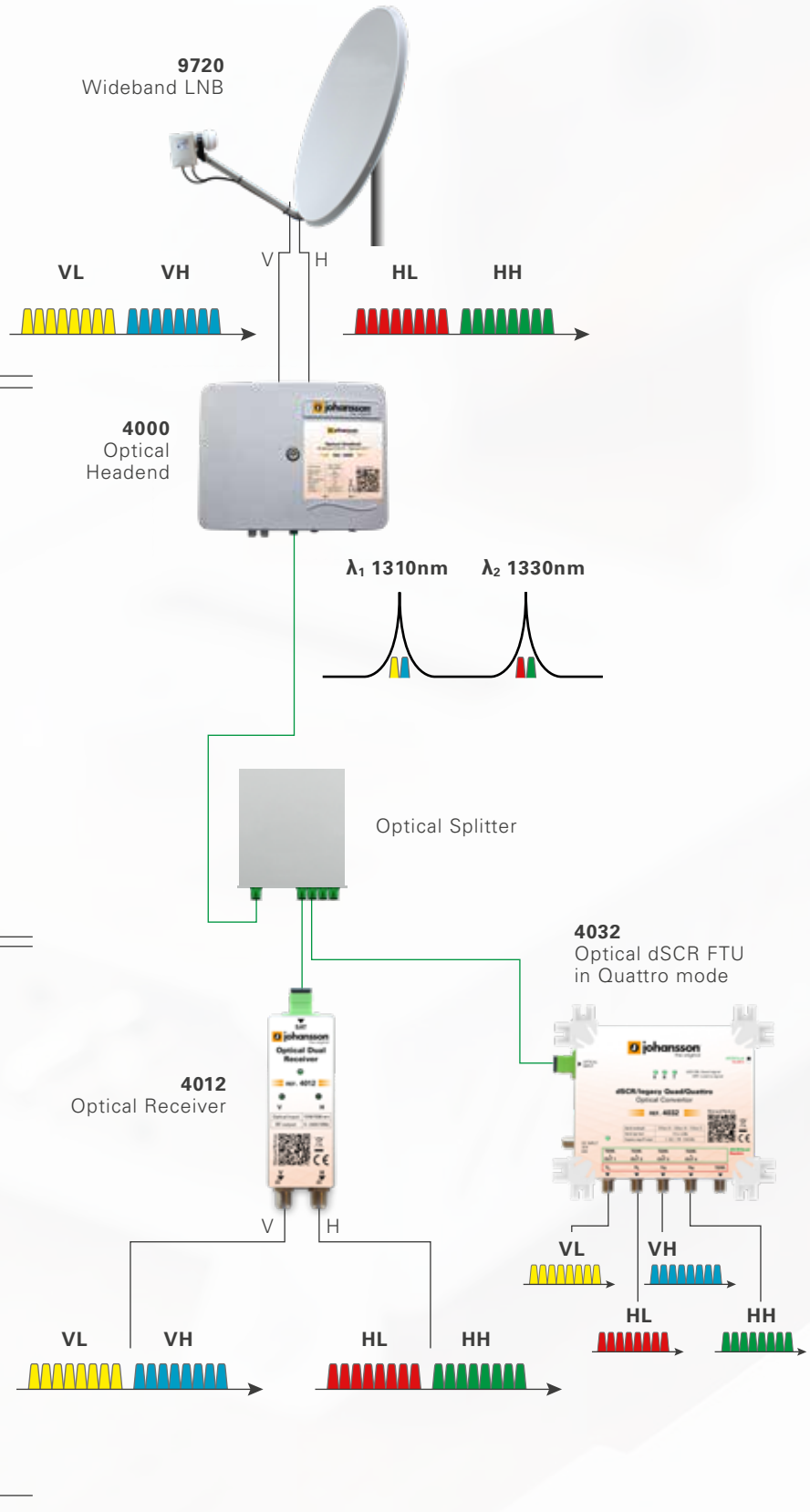
Compared to other solutions in the market, we offer higher signal quality over more splits. We also offer a more qualitative solution for 2 satellite orbital positions and terrestrial in one fiber. Without a doubt, our satellite fiber distribution range will improve your installations.

Fiber Optical Distribution: How it works

1 The Wideband LNB receives a satellite signal and converts it to Wideband V/H on coaxial network.

2 The optical headend converts Wideband V/H to optical wavelengths (1310nm and 1330nm) on 1 optical fiber cable. Terrestrial signal can be put on 1550nm using ref. 4001.

3 The optical receiver converts the 2 optical wavelengths to Wideband V/H. The optical dSCR FTU converts the optical wavelengths to Quattro (VL, VH, HL, HH) or to dSCR/ Quad. The Quattro signal is perfect as a satellite trunk feed. In case of dSCR/ Quad, the signal can be send to STBs.



Optical Headend 4000 - 4001

This **Optical Compact Headend** converts 2 wideband satellite inputs into 2 wavelengths (1310nm – 1330nm) and puts them on 1 optical feed. The output signal is strong enough to support huge installations, with up to 128 passive splits. The 4001 Optical Compact Headend converts 1 input to 1550nm optical wavelength.

4000
- 2 wideband V/H inputs
- frequency range: 5 - 2400 MHz
- 1 optical output (wavelengths: 1310nm (V) - 1330nm(H))
- 9 dBm optical output power

4001
- 1 wideband input
- frequency range: 5-2400 MHz
- 1 optical output (wavelength 1550nm)
- 9 dBm optical output power
- optical input for loopthrough (from ref. 4000)

Specifications 4000 - 4001

		4000	4001
Inputs	-	2 RF	1 RF + 1 optical (loopthrough from ref. 4000)
Outputs	-	1 Optical	
Optical wavelength	nm	1310 1330	1550
Frequency range	MHz	5 - 2400	
Optical output power	dBm	+9 per wavelength	
Ripple	dB	+/- 2.5	
Optimal input level*	dBµV	SAT: 80 per transponder TERR.: 70 per MUX *Optimal input level with input attenuator set to 0 dB	
Input attenuator	dB	0 - 15	
Laser type	-	DFB	
Laser LED control	-	Internal Green LED on	
LNB power supply	-	12.8V / max. 240 mA	
Power consumption without LNB power	W	9.0	6.0
Power supply	VAC	200 - 240	
Optical connector type	-	SC/APC	
RF connectors	-	F-female	
Operating temperature range	°C	-20 to +55	
Protection class	-	IP 50	
Dimensions	mm	225 x 190 x 86	
Weight	kg	1.800	

Optical Receiver

Single, dual or triple receiver

The **optical receiver** is developed for the transmission of broadband signals in medium and large Fiber Optic systems. The Optical receiver can convert one, two or three wavelengths.

Optical Receiver 4011 - 4012 - 4013

The **optical receiver** is developed for the transmission of broadband signals in medium and large Fiber Optic systems. The Optical receiver can convert one, two or three wavelengths. Ref. 4011 (Optical Single Receiver) converts 1550nm to Satellite or Terrestrial signal. Ref. 4012 (Optical Dual Receiver) converts 1310 + 1330 nm to wideband V/H; Ref. 4013 (Optical Triple Receiver) converts 1310 + 1330 + 1550 nm to wideband V/H and Terrestrial signal.

- optical input level: -15 to +4 dBm
- frequency range: 5 - 2400 MHz
- high reception quality even with high split ratios
- powering via V or H output (12V - 20V)
- AGC to boost signal level
- optical wavelengths: 1310nm (V), 1330nm (H), 1550nm (T)
- compatible with Johansson wideband Multiswitches (e.g. 9775, 9754, 9758, 9734, etc.) with double F male adaptors or jumpercables
- up to 128 passive splits
- **power supply:** Ref. 2462 (optional)
- **power inserter:** Ref. 9669 (optional)

Specifications 4011 - 4012 - 4013

		4011	4012	4013
Optical inputs	-		1	
RF outputs	-	1	2	3
Optical wavelength	nm	1550	1310 1330	1310 1330 1550
Terrestrial output frequency range	MHz	-	-	5 - 1008
Satellite output frequency range	MHz		5 - 2400	
Optical input level	dBm		-15 to +4	
RF output level per Tr. (AGC)	dBµV		80	
Signal presence indicator	-		Green LED per wavelength	
Return loss	dB		10	
Optical connector type	-		SC / APC	
RF connector	-		75 Ohm F type (Female)	
Power consumption	W	1	2	3
Power supply	VDC	12 - 20 (via DC port)	12 - 20 (via V or H port)	
Power indicator	-		Green LED	
Operating temperature range	°C		-20 to +55	
Dimensions	mm	36 x 45 x 125	36 x 45 x 125	56 x 45 x 125
Weight	kg	0.110	0.110	0.165

dSCR/legacy 4031 - 4032

This unique **dSCR/legacy Optical Convertor** with high output power has been developed to help installers overcome low signal quality in satellite fiber installations. This easy to use product can be used in dSCR/Quad or Quattro mode.

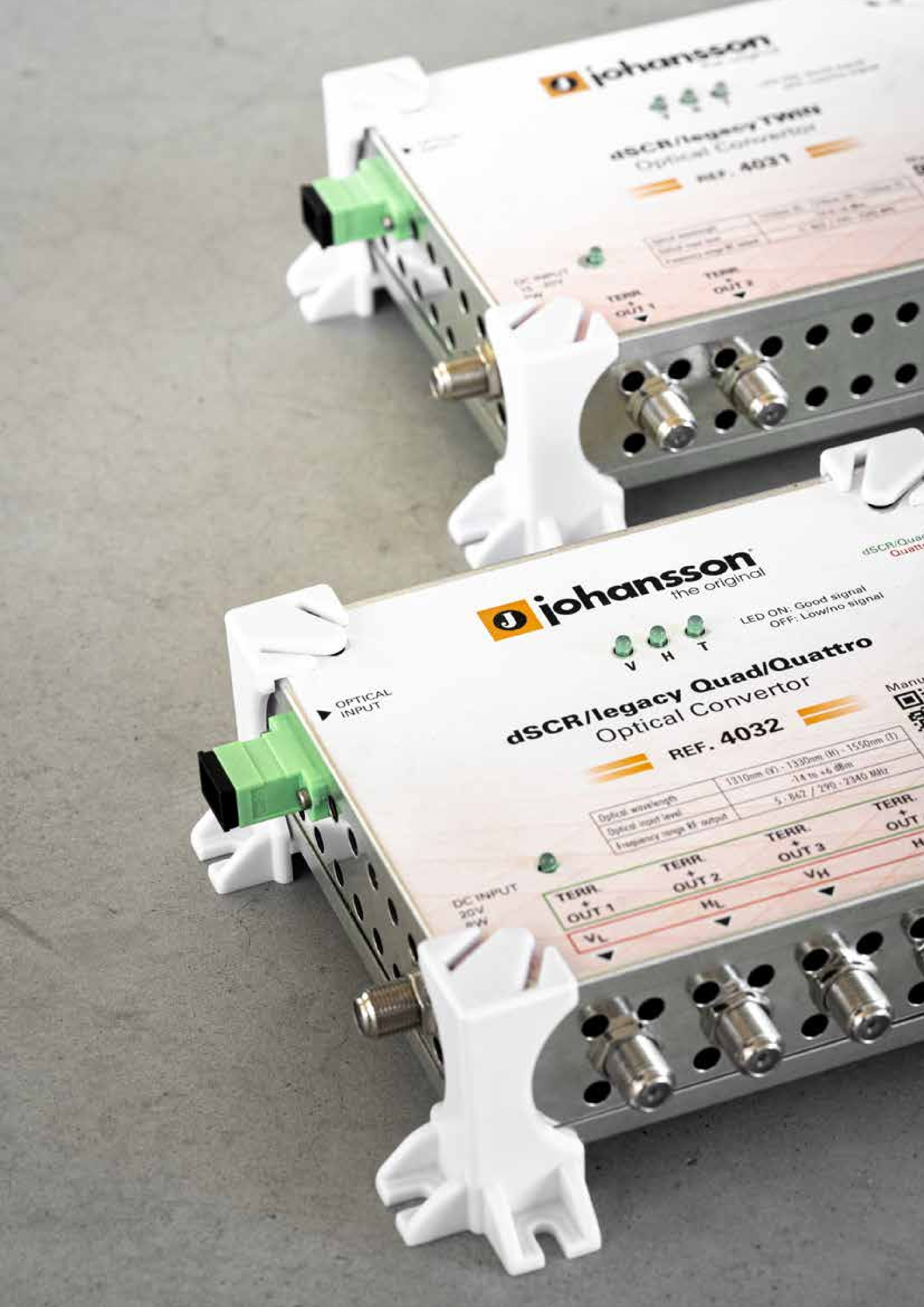
4032

In **Quad mode**, 3 optical wavelengths are converted to 4 x dSCR/legacy with TERR. + 1 x TERR.
In **Quattro mode**, the product serves as a satellite trunk output, as 3 wavelengths are converted to VL, HL, VH, HH, TERR.

- unique product in the market with high output power
- optical wavelengths: 1310nm (V), 1330nm (H), 1550nm (T)
- optical input level: -14 to +4 dBm
- 3 outputs (4031) : 2 dSCR/legacy/TERR. + 1 TERR.
- 5 outputs (4032) :
  - Quad mode: 4 x dSCR/Legacy with TERR.
  - Quattro mode: VL, HL, VH, HH, TERR (serves as satellite output trunk)
- AGC on all output ports
- signal quality indicator per wavelength
- energy efficient
- power supply: 20V via DC IN or from STB (optional ref. 2462)
- can be used in systems with up to 128 splits
- **power supply:** Ref. 2462 (optional)

Specifications 4031 - 4032

		4031	4032 Quattro mode	4032 Quad mode
Optical inputs	-		1	
RF outputs	-	3 (2 dSCR/Legacy with TERR. + 1 TERR.)	5 (V_L, H_L, V_H, H_H, T)	4 (dSCR/legacy with TERR.)
Optical wavelength	nm		1310 1330 1550	
Terrestrial output frequency range	MHz		40 - 790	
Satellite output frequency range	MHz		950 - 2150	
Optical input level	dBm		-14 to +4	
Signal presence indicator	-		Green LED per wavelength	
dCSS/dSCR UBs	-	2 x 16	-	4 x 16
Output level dSCR/Legacy (AGC)	dBµV		80	
Output level TERR. (AGC)	dBµV	70	70	65
Return loss	dB		10	
Optical connector type	-		SC / APC	
Output connector type	-		75 ohm F type (female)	
Band and polarity selection	-		DiSEqC 1.0 (unidirectional) DiSEqC 2.0 (bidirectional) Standard EN50494/EN50607 SKY UK protocol Universal LNB Voltage & Tone	
Power consumption	W	5	8	8
Power supply via DC IN	VDC		20	
Power supply via output (STB)	VDC		12 - 20	
Power indicator	-		Green LED	
Selection Quad or Quattro mode	-	-	Via switch	
Operating temperature range	°C		-20 to +55	
Dimensions	mm		166 x 136 x 50	
Weight	kg	0.310	0.500	



johansson
dSCR/legacy TWIN
Optical Convertor
REF. 4031
johansson
the original
LED ON: Good signal
OFF: Low/no signal
V
H
T
dSCR/legacy Quad/Quattro
Optical Convertor
REF. 4032
OPTICAL INPUT
Optical wavelength
Optical input level
Frequency range RF output
1310nm (V) - 1330nm (H) - 1550nm (T)
-14 to +6 dBm
5 - 862 / 290 - 2340 MHz
DC INPUT
20V
8W
TERR. + OUT 1
TERR. + OUT 2
TERR. + OUT 3
VL
HL
VH

Compact Satellite Convertor 9780

The 9780 is the **new generation converter** for satellite signals to be used in MDU's. The compact plug-and-play module has a straightforward and easy configuration. Perfect for equalizing and optimizing satellite transponders as input for your optical headend.

- programmable satellite IF converter
- up to 32 DVB-S/S2 transponders
- 4 satellite inputs (Quattro/Quad/Wideband LNB)
- realtime AGC on all individual transponders
- read-out of input level strength: no need for field strength meter
- 110 dBµV output level
- auto-tuning functionality
- can be used in systems with up to 128 splits
- SD card slot for copy configuration
- **variant with ethernet access and web interface: 9780ETH**

Full specifications at page 33

AGC & ASC Wideband Amplifier 9657

Before the Wideband V/H signal is inserted in the Optical Headend (ref. 4000), the signal must be amplified. The Ref. 9657 **AGC & ASC Wideband Amplifier** is the perfect solution for this, because it optimizes your Wideband V/H signal in real-time. To do so, it uses Automatic Gain Control (AGC) and Automatic Slope Control (ASC).

- Automatic Gain Control and Automatic Slope Control on both satellite lines (V/H)
- DC input for powering amplifier and LNB
- selectable between Wideband LNB (290 - 2400 MHz) and Universal LNB (950 - 2150 MHz)
- output level selectable for up to 16 splits or 64 splits

Full specifications at page 39

Fiber Distribution Accessories

Optical PLC Splitter 1 SC/APC to x SC/APC 1260 - 1650 nm		Optical Cable, Patch cord in and out SC/APC		Optical Attenuator in and out SC/APC	
Ref. 4040	2-way	**Ref. 4050**	1 m	**Ref. 4060**	5 dB
Ref. 4041	4-way	**Ref. 4051**	10 m	**Ref. 4061**	10 dB
Ref. 4042	8-way	**Ref. 4052**	50 m	**Ref. 4062**	15 dB
Ref. 4043	16-way	**Ref. 4053**	100 m		

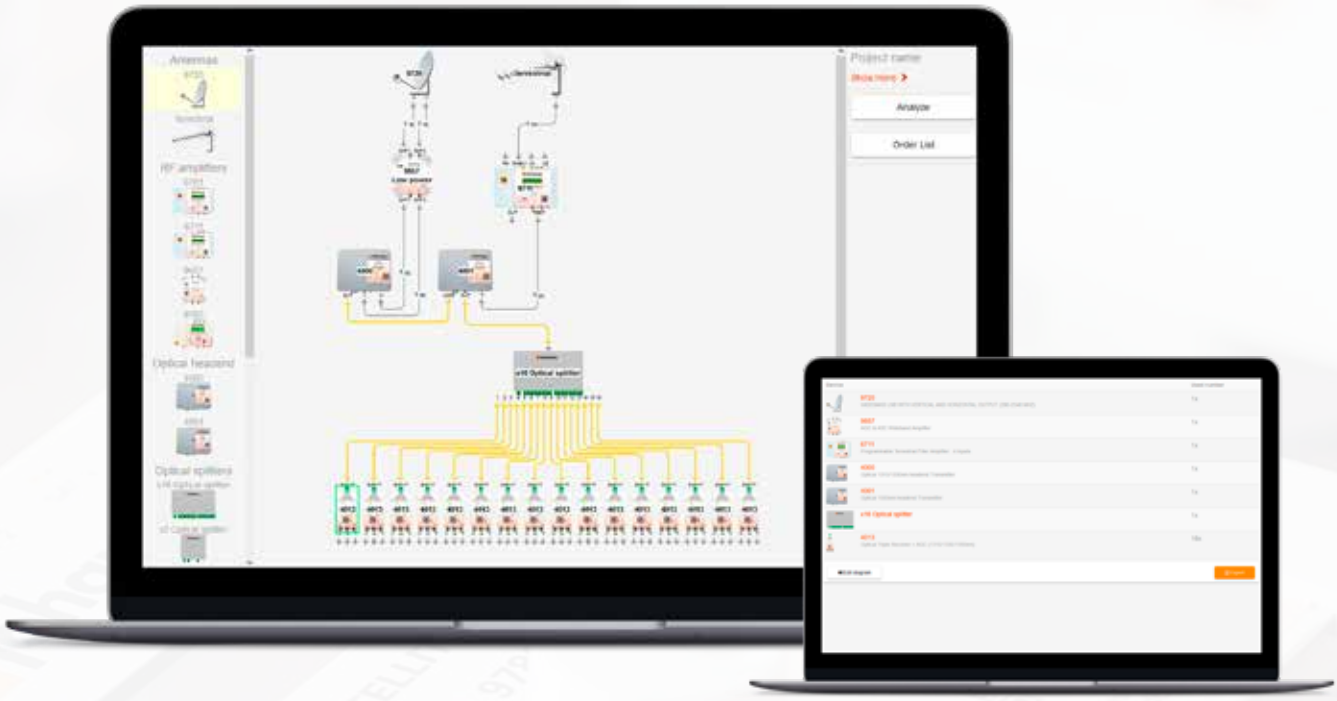
Configure your next Fiber project!

We developed an optical configurator to help you prepare your installations.
The advanced but user friendly platform will give you insight in the output signal and optimal set-up of your project. In a few easy steps, you'll know how your next fiber project should be executed.

www.ucloudserver.com

Easily set up your **project**

Complete your **configuration**
Simulate your installation
Calculate signal quality in your system



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SAT 2
SAT 3
SAT 4
CABLE
GND
johansson
the original
Manual/Notice:
0 - 20dB
4 SAT + CABLE
AMPLIFIER
REF. 9935
DC POWER
12 - 20V
4W
Band
SAT
CABLE + RETURN PATH
Frequency
Gain / Loss
Max. output level


johansson
the original
REF. 9725
SFU dCSS Switch
Outputs to wallplate
Terr. + Legacy + SCR
Terr. Input
Inputs from
Multiswitch/ LNB


W SAT. A
W SAT. B
W SAT. C
W SAT. D
Q SAT. A
Q SAT. B
Terr.
Terr. Amp.
johansson
the original
Quattro
Wideband
Digital SCR Multiswitch
Wideband Compatible
REF. 9774
SCR 1
SCR 2
SCR 3
SCR 4
Manual/Notice:
DC POWER
12 - 20V
SATELLITE TRUNK OUTPUTS
Terr.

Satellite and dSCR Distribution

Market leading dSCR technology

Multiswitches are a key element in the **distribution of satellite** signals over coaxial cable throughout big buildings. In many cases there is only one coax cable available from the technical riser to the apartment.

Unitron offers a wide range of multiswitches with integrated 'Digital SCR' technology. With those multiswitches, you can connect multiple set-top boxes for multi-room applications to numerous satellites using one coax cable only!

By enabling Single Cable Router mode in Unitron's "Johansson SCR multiswitch", we simplify the deployment and lower the overall cost of satellite service installation.

Over the last years, Johansson Multiswitches have been **sold in over 40 countries**. This has made Unitron market leader in dSCR technology. To meet your unique system requirements, custom software solutions are available.

dSCR Multiswitch 9731 - 9732

Unitron offers a **wide range of multiswitches** with integrated 'SCR' technology. With those multiswitches, you can connect multiple set-top boxes for multi-room applications to numerous satellites using one coaxial cable only!

- up to 16 UBs per SCR Output
- supports all SCR standards
- ultra compact housing
- trunk output for cascading multiple products
- available for different operator user bands

Specifications 9731 - 9732

		9731	9732
Trunk inputs	-	4	
Trunk outputs	-	4	
Frequency	MHz	950 - 2150	
Trunk loss	dB	3	
dCSS/dSCR outputs	-	1	2
dCSS/dSCR output connector	-	75 Ohm F type (Female)	
dCSS/dSCR UBs	-	16	16 + 16
dCSS/dSCR output level	dBµV	85	
Return loss	dB	>=8 (typ 12)	
Tap loss	-	Not applicable, AGC (Automatic Gain Control)	
Band and polarity selection	-	DiSEqC 1.0 (unidirectional) DiSEqC 2.0 (bidirectional) Standard EN50494/EN50607 SKY UK standard	
Max DC current consumption	mA	<300 @13Volt	<320 @13Volt
Power supply	-	From STB, power inserter or trunk (VL)	
Power inserter (2460 + 9669 available separately)	-	3A max, 20V	
Dimensions	mm	90 x 80 x 40	

dSCR Multiswitch
9733 - 9734 - 9736

The 9734 has 4 satellite wideband input (for 1 quattro or 2 wideband LNB), passive terrestrial diplexer, 2 outputs with each 16 user bands.

- input for 1 universal LNB or 2 wideband LNBs (switchable)
- up to 16 UBs per SCR output
- auto detection for SCR and Legacy Mode
- possibility to convert wideband inputs into Legacy outputs
- support all SCR Standards
- compatible with all Legacy STBs
- passive terrestrial/cable diplexer
- low power Sleep Mode
- ultra compact housing
- trunk output for cascading multiple products
- available for different operator user bands
- **ref. 9736:** 2 wideband satellite inputs, 2 satellite trunk outputs, 2 outputs with each 16 User Bands

Specifications 9733 - 9734 - 9736

		9733	9734	9736
Trunk inputs	-	4 + 1		2
Trunk outputs	-	4 + 1		2
Trunk frequency	MHz	5 - 862 / 290 - 2340		290 - 2340
STB output frequency	MHz	5 - 862 / 950 - 2150		950 - 2150
Trunk loss	dB	1		2
dCSS/dSCR outputs	-	1	2	
dCSS/dSCR output connector	-	75 Ohm F type (Female)		
dCSS/dSCR UBs	-	16	16 + 16	
dCSS/dSCR output level	dBµV	85		
Return loss	dB	>=8 (typ 12)		
Tap loss	-	Not applicable, AGC (Automatic Gain Control)		
Terrestrial/Cable loss	dB	-7 typical	-11 typical	-
Band and polarity selection	-	Universal LNB Voltage & Tone DiSEqC 1.0 (unidirectional) DiSEqC 2.0 (bidirectional) Standard EN50494/EN50607 SKY UK standard		
Max DC current consumption	mA	<350 @13Volt		
Power supply	-	From STB, power inserter or trunk (VL&VH)		
Power inserter (2460 + 9669 available separately)	-	3A max, 20V		
Dimensions	mm	92 x 90 x 40		

SCR Stacker 9738

The **SCR Stacker** is the perfect solution to upgrade an old single satellite STB system to an SCR-compatible dual input receiver (PVR) or 2 separate SCR-compatible set-top boxes. The advantage of using the 9738 is that no additional cable is needed to connect the second tuner. The product stacks both transponders on 1 cable.

- use with Universal LNBs (f.i. 2 single LNBs or 2 ports of a quad LNB) or 2 ports of a multiswitch
- powers the LNB or multiswitch from the STB or from an additional power supply (ref. 2462)
- supports the following standards:
  - EN50494/SCR standard (DiSEqC 1.0)
  - EN50607/dCSS/dSCR standard (DiSEqC 2.0)

Specifications 9738

Inputs	-	2 ports satellite, combined with terrestrial on port 1
Input frequency	MHz	Userbands: 1-2: 1076 - 1178 Userbands: 3-4: 1280 - 1382 Userbands: 5-6: 1284 - 1400 Userbands: 7-8: 1210 - 1420
STB output frequency	MHz	5 - 862 / 950 - 2150
dCSS/dSCR outputs	-	1 SCR
dCSS/dSCR output connector	Ohm	75 F type (Female)
dCSS/dSCR UBs	-	2 on SCR output
dCSS/dSCR output level	dBµV	86
Satellite input power level	dBµV	64 to 94
Return loss	dB	>=8 (typ 12)
Tap loss SCR	dB	Not applicable, AGC (Automatic Gain Control)
Terrestrial/Cable loss	dB	-7 typical
Band and polarity selection	-	DiSEqC 1.0 (unidirectional) DiSEqC 2.0 (bidirectional) Standard EN50494/EN50607
Max DC current consumption SCR port	W	<4.0
DC power pass from STB to input ports	V	13/18/22kHz 100mA max per port
From DC power port to input ports	V	13/18/22kHz 500mA max combined
Power supply	-	From STB or power inserter
Power (2462 available separately)	mA	500 max, 20V
Dimensions	mm	90 x 85 x 40

Multiswitch Add-on 9739

The 9739 can be used with **Quattro** or **Quad LNB** types and will output in Legacy or SCR mode. Use the Multiswitch Add-on to change a legacy Multiswitch to a Channel Stacking Switch (CSS) without loss of existing legacy ports. Concretely, you can use the Multiswitch Add-on to upgrade your legacy Multiswitch system and make the latest generation of SCR set-top boxes (STB) available in 2 Single Family Units (SFUs) per Add-on. You can also use this Multiswitch Add-on to transform a Fiber GTU signal to a SCR GTU signal.

- no need to interrupt the trunk signal during installation.
- make a legacy system compatible with two times 16 user bands
- additional power supply (ref. 2462)
- supports the following standards:
  - EN50494/SCR standard (DiSEqC 1.0)
  - EN50607/dCSS/dSCR standard (DiSEqC 2.0)
  - Simultaneous support for EN50494/EN50607 standards
  - SKY UK standard

Specifications 9739

Inputs	-	4 ports terrestrial + satellite
Input frequency	MHz	5 - 862 / 950 - 2150
STB output frequency	MHz	5 - 862 / 950 - 2150
dCSS/dSCR outputs	-	2 legacy only 2 SCR/legacy (auto detection)
dCSS/dSCR output connector	Ohm	75 F type (Female)
dCSS/dSCR UBs	-	16 per SCR output
dCSS/dSCR output level	dBµV	88
Satellite input power level	dBµV	64 to 94
Return loss	dB	>=8 (typ 12)
Tap loss SCR	dB	Not applicable, AGC (Automatic Gain Control)
Tap loss legacy	dB	0 typical
Terrestrial/Cable loss	dB	-7 typical
Band and polarity selection	-	DiSEqC 1.0 (unidirectional) DiSEqC 2.0 (bidirectional) Standard EN50494/EN50607
Max DC current consumption SCR port	W	<4.0
DC power pass from STB to input ports	V	13/18/22kHz 100mA max per port
From DC power port to input ports	V	13/18/22kHz 500mA max combined
Power supply	-	From STB or power inserter
Power (2462 available separately)	mA	500 max, 20V
Dimensions	mm	90 x 85 x 40

4/8/16-way dSCR Multiswitch
9744 - 9746 - 9748

The **974x products** are designed to support a wide range of new and existing multiswitch installations. Have a mixed network of STBs, not a problem with the Johansson SCR family of multiswitches. Auto detection of what type of STB is on the network, is built-in to all our solutions.

- 4/8/16 SCR outputs
- up to 16 UBs per SCR output
- auto detection for SCR and Legacy Mode
- support all SCR Standards / compatible with all Legacy STBs
- amplified/bypass terrestrial diplexer
- soft power-up mode for Legacy
- power diagnostics for trunk power
- available for different operator user bands

Specifications 9744 - 9746 - 9748

			9744	9746	9748
SATELLITE	Operating frequency range	MHz	950 - 2150		
	Inputs	-	4		
	Outputs* (Trunk)	-	4		
	Max. and min. input txp power level	dBµV	74 to 104		
	Trunk lines In to Out	dB	-2.5 max (-1.5 typical) -4	max. (-2.5 typical)	-9 max. (-6 typical)
	In to SCR Out gain	dB	-15 to +15 typical, AGC controlled		
	In to legacy Out gain	dB	-13 max. (-8 typical)		
	Return loss	dB	>8		
TERRESTRIAL	Operating frequency range	MHz	88 - 790		
	Inputs	-	1		
	Outputs (Trunk)	-	1		
	Max. and min. input txp power level	dBµV	Amplified: 96	Amplified: 96	Amplified: 96
	Trunk lines In to Out	dB dB dB dB	Bypass: -7 max. (-5 typical) Amplified: +4 min. (+6 typical)	Bypass: -10 max. (-8 typical) Amplified: +1 min. (+3 typical)	Bypass: -20 max. (-16 typical) Amplified: +2 min. (+6 typical)
	In to SCR Out gain	dB dB dB dB	Bypass: -23 max. (-17 typical) Amplified: -12 max. (-6 typical)	Bypass: -27 max. (-21 typical) Amplified: -16 max. (-10 typical)	Bypass: -34 max. (-24 typical) Amplified: -16 max. (-10 typical)
dSCR OUTPUT PORTS	dSCR Output ports	-	4	8	16
	Supported output modes	-	SCR + Legacy + DTT/DAB/FM		
	SCR mode indication	-	Multicolor/Flashing LED		
	SCR Output power per txp	dBµV	86 min. (88 typical), AGC controlled		
	SCR Channel bandwidth	MHz	46		
	SCR User bands	-	16		
	SCR Standard (auto detect a switch)	-	SKY UK SCR, CENELEC EN50494, CENELEC EN50607, Universal LNB Tone & Voltage		
	Legacy Output power per txp	dBµV	Up to 94, no AGC		
	DiSEqC signaling	-	DiSEqC compliant		
DC POWER	DC Power connector	-	Unit can be powered via PWR port, trunk lines or outputs (all F-type)		
	Power indication	-	Green LED (front of unit)		
	Power supply voltage	VDC	10 to 20	10 to 20	10 to 20 (from STB) 11 to 20 (from PWR port)
	Max. power consumption	W	SCR mode: 6 (per pair of ports) I LNB emulation mode: <2 (per port - Ter Amp OFF)		
	DC from trunk lines Out to In	-	Yes (not for terrestrial trunk)		
	Supply current to LNB (switchable)	mA	500 (@ 20V)		
	Short Circuit protection & Power on Diagnostics	-	Yes		
	Ground post	-	1		
	Operating temperature range	°C	-20 to +50 indoor housing		
	Dimensions	mm	223 x 143 x 50	223 x 223 x 50	223 x 423 x 50

4/8-way dSCR Multiswitch
9754 - 9754A - 9758 - 9758A

We proudly present you **the next generation dSCR Multiswitches** from your market leader. These state-of-the-art dSCR Multiswitches in a compact die-cast housing are optimized for installation in narrow spaces and will make your installation more successful.

- 4 satellite + 1 terrestrial inputs
  - compatible with wideband LNBs (1 or 2 satellites)
  - compatible with 1 Quattro LNB
- multi-standard: wideband, dSCR, dCSS, legacy, terrestrial
- 4-way (9754 – 9754A)
- 8-way (9758 – 9758A)
- 9754A and 9758A:
  A- version with active terrestrial amplifier
- optimized performance and power consumption
- compact die-cast housing for easy installation

Specifications 9754 - 9754A - 9758 - 9758A

		9754	9754A	9758	9758A
Trunk inputs/outputs	-	Sat.: 4 I Terr.: 1			
dSCR outputs	-	4		8	
Frequency	MHz	Sat.: 290 - 2340 I Terr.: 88 - 862			
Min input level SAT	dBµV	Universal LNB: 62 I Wideband LNB:67			
Max input level TERR	dBµV	-	Amplified: 109 Bypass: 121	-	Amplified: 109 Bypass: 121
Trunk return loss	dB	>10			
Trunk insertion loss	dB	Sat.: 2 I Terr.: 1.5			
Sat positions	-	Universal LNB: 1 I Wideband LNB: 2			
dSCR channel output power	dBµV	88 (AGC controlled)			
Output return loss	dB	>10			
Terr tap loss	dB	18	Amplified: 8 Bypass: 20	22	Amplified: 12 Bypass: 24
SCR channels (16 users/output)	MHz	Between 950 and 2150			
Supported standards	-	EN50494 (SCD) I EN50607 (SCD 2) I BskyB I Legacy			
Trunk termination DC blocked required	Ohm	75 (Sat & Terr)			
DC power via SAT trunks	V	20			
Consumption	W	10		20	
Operating temperature	°C	-20 to 50, indoor housing			
Dimensions	mm	124 x 117 x 39		204 x 117 x 39	


Quattro
Wideband
johansson
the original
Digital SCR Multiswitch
Wideband Compatible
REF. 9774
Manual/Notice:
DC POWER
12 - 20V
DiSEqC
SATELLITE TRUNK OUTPUTS
Input
Selection
Term.

4/6-way dSCR Multiswitch
9774 - 9775

The 9775 has 8 satellite wideband inputs and 1 terrestrial input. This allows you to use 2 quattro LNBs or 4 wideband LNBs. The 6 SCR outputs have 10 user bands each. What makes the 9775 unique is the following: on each individual output, you can select the input and channel plan. This multiplies the available content and minimizes your equipment costs.

With the 9775, you can offer a wide range of video content in multi-dwelling units. For each single family unit, you can select a specific channel plan. When the family's preferences change, or there's a new family moving in, you can simply change the output settings. This gives you much more flexibility and you only need one multiswitch.

- 8 satellite wideband inputs
  - compatible with 4 wideband LNBs
  - compatible with 2 Quattro LNBs
- 6 SCR outputs with each 10 user bands
- 1 terrestrial input
- channel plan can be selected on each output individually
- **ref. 9774**: variant with 4 SCR outputs with each 16 user bands and auto-detection for SKY standards

Specifications 9774 - 9775

		9774	9775
Trunk inputs/outputs	-	Sat.: 8 I Terr.: 1	Sat.: 8 I Terr.: 1
dSCR outputs	-	4	6
User bands per output	-	16	10
Frequency	MHz	Sat.: 290 - 2340 I Terr.: 88 - 862	Sat.: 290 - 2340 I Terr.: 88 - 862
Input level	dBµV dBµV	Sat: 58 to 108 Terr.: 100 (amplified)	Sat: 58 to 108 Terr.: 100 (amplified)
Return loss	dB	-10	-10
Insertion loss	dB	Sat.: 2 I Terr.: 3	Sat.: 2 I Terr.: 3
Sat positions	-	Wideband: 4 I Universal: 2	Wideband: 4 I Universal: 2
Supported LNB types	-	Quattro (LO: 9750/10600) Wideband (LO: 10410)	Quattro (LO: 9750/10600) Wideband (LO: 10410)
dSCR channel power	dBµV	86 (AGC controlled)	86 (AGC controlled)
Output return loss	dB	10	10
Terr output loss	dB	-20 or -8 (switchable)	-20 or -8 (switchable)
SCR channels	MHz	Configurable between 950 and 2150	Configurable between 950 and 2150
Supported standards	-	EN50494 / EN50607 / BskyB	EN50494 / EN50607 / BskyB
Trunk termination DC blocked required	Ohm	75 (Sat & Terr)	75 (Sat & Terr)
DC supply to sat trunks from power adapter	V	20	20
DC supply from sat trunks	V	20	20
Max LNB current / LNB	mA	500	500
DC jack 2.1mm + F con DC input	V	20	20
DC power from output port	-	Yes	Yes
Consumption	W	24	24
Dimensions	mm	220 x 220 x 50	220 x 220 x 50
Operating temperature	°C	-20 to 50, indoor housing	-20 to 50, indoor housing

Satellite IF Amplifier 9935

- 5 lines amplifier 4 x SAT + 1 x Cable
- separate adjustment for gain on every line
- fixed pre-slope for satellite and cable
- DC input (F-con) for powering trunk line amplifiers & LNB

Specifications 9935

Inputs	-	4 Sat + 1 cable (+RP)
Outputs	-	5
Frequency range	MHz	Sat.: 950 - 2300 I Cable.: 5 - 65 + 87 - 862
Gain	dB	Sat.: 22 - 28dB (sloped) Cable: 87 - 862MHz : 20 - 27dB (sloped) Return path: -1dB
Noise figure	dB	Sat.: 5 I Cable.: 6
Gain adjustment	dB	Sat.: 20 I Cable.: 20
Max. Output level	dBµV	Sat.: 115dBµV (-35dB/IM3) I Cable.: RP : passive I 87 - 862MHz: 110dBµV (-60dB/IM3)
Consumption	dB	4W from 12 - 20 VDC external power supply (F-conn) or input / output
Dimensions	mm	158 x 102 x 51

Compact Satellite Convertor 9780

The 9780 is the new generation **convertor for satellite** signals to be used in MDU's. The compact plug-and-play module has a straightforward and easy configuration. Perfect for equalizing and optimizing satellite transponders as input for your optical headend.

- programmable satellite IF convertor
- up to 32 DVB-S/S2 transponders
- 4 satellite inputs (Quattro/Quad/Wideband LNB)
- realtime AGC on all individual transponders
- read-out of input level strength: no need for field strength meter
- 110 dBµV (output level)
- auto-tuning functionality
- can be used in Fiber Optic Sytstems with up to 128 passive splits
- SD card slot for copy configuration
- **variant with ethernet access and web interface: 9780ETH**

Specifications 9780

Inputs	-	4 SAT (Wideband/Quattro/Quad)
Outputs	-	1 main (SAT) + 1 test port (-30dB)
SAT input frequency range	MHz	290 - 2340
SAT output frequency range	MHz	290 - 2340
SAT Input level	dBµV	40 - 95
SAT output power (per transponder)	dBµV	110
SAT output power (35dB/IM3)	dBµV	132
SAT output level flatness	dB	<1
SAT output level adjustment	dB	>40
Slope adjustment	dB	15
SAT Gain	dB	>40
Number of transponders	-	32
Conversion	-	Yes (all transponders)
Transponder Bandwidth	MHz	1 - 77 (per 1 MHz steps)
Selectivity	dB	35 (@ 1MHz)
Return Loss	dB	10
Auto tuning	-	Yes (incoming transponders are copied from 1 input to output)
ESD protection	-	All inputs
DC@ SAT input	-	13V/18V/Bypass & 0/22kHz selectable by SW
DC Load current @ SAT input	mA	500
SD port	-	Yes (for copy configuration)
Operating temperature	°C	-5 to +50
Power Supply	V	100 - 240
Power Consumption	W	25
Dimensions	mm	217 x 165 x 59
Weight	kg	0.8

SFU dCSS Switch 9725

Upgrade to Sky Q without changing your existing quadplex wall socket. The 9725 SFU dCSS Switch converts a wideband signal to dCSS so you can connect any digital Set-Top box – such as Sky Q, Sky+, FreeSat or Freeview – without changing your in-home wall socket.

- designed for Pre-Wired dwellings with Wideband LNBs and Terrestrial and Radio antennas
- 3 inputs: 2 Satellite cables (Wideband LNB) + 1 Terrestrial cable
- 2 outputs with 16 user bands each
- multistandard: EN50494 – EN50607 – SKY – Legacy – Terr.
- supporting New Build Developers and also for Retro-Fitting
- makes all digital platforms available to residents
- upgrade to Sky Q without changing your existing quadplex wall socket
- for indoor use and outdoor use
- **KIT 9725: 9725 with Wideband LNB (ref. 9720)**

Specifications 9725

Inputs	-	2 SAT + 1 Terr./FM/DAB
Outputs	-	2 (Terr. + Legacy + SCR)
Input frequency	MHz	Terr.: 5-862 | SAT (wideband): 290-2340
Output frequency	MHz	5-862 + 950-2150
dCSS/dSCR output level	dBµV	85
Return loss	dB	>=8 dB (Typ 12)
Terrestrial/Cable loss	dB	-4
Power consumption	W	< 3
Max DC current consumption	-	< 230mA @ 13 Volt
Power supply	-	From STB - To LNB
Dimensions indoor unit	mm	Indoor: 65x100x30 mm | outdoor: 120x115x50

Stacker Destacker 9645

The **Stacker-Destacker** is the perfect solution to upgrade an old single-cable system with a twin (or quad) LNB to be used in combination with a dual input receiver (PVR) or 2 separate single input receivers. The advantage of using the Stacker-Destacker is that you don't need an additional cable. The Stacker converts the frequencies of the second input, so it is literally stacked above the frequencies of the first input. The Destacker converts the frequencies back to the original ones.

This new version of the Stacker-Destacker doesn't need an additional power adapter by default. Thanks to the built-in attenuator with adjustment, it is protected against high input signals, avoiding saturation of the device.

- no power adapter needed! Power the device with the satellite receiver.
- built-in switchable attenuator to protect against high input signals
- transparent for unidirectional DiSEqC® (receive signals from up to 4 satellites)
- 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
- **optional power adaptor only needed in extreme situations: Ref. 2452 (24 Vdc)**

johansson
the original
REF. 9725
SFU dCSS Switch
Outputs to wallplate
Terr. + Legacy + SCR
Terr. Input
Inputs from
wideband LNB

DC Power Supply 9933

- DC Power Supply with DC-jack 2.1mm

Specifications 9933(UK)

AC input	-	230 V-/50 Hz
DC output	VDC	15
Max. Output/ current	A	2
Connector	mm	Jack 2.1 (Female)
Dimensions	mm	176 x 71 x 47

Power Supply for dSCR 2460 - 2462

These **power supplies** are designed to power the trunk lines or the DC input connector.

- DC power supply with F-connector
- powers SCR products without overloading the set-top boxes

Specifications 2460(UK) - 2462(UK)

		2460(UK)	2462(UK)
Input voltage	VAC	100 - 240	100 - 240
Output voltage	VDC	20	20
Output current	A	3.25	1.2
Output connector	-	F-type	F-type
Dimensions	mm	115 x 55 x 35	90 x 90 x 35

Power Supply 2461

- powers SCR products without overloading the set-top boxes
- copies the set-top box voltage, tone and DiSEqC to the SCR product (EN50494 and EN50607)

Specifications 2461

Inputs	-	1
Outputs	-	2
Frequency range	MHz	950 - 2150
Insertion loss	dB	6
Return loss	dB	> 10
Input voltage	VAC	100 - 240
Output voltage	VDC	18
Output current	mA	500
Dimensions	mm	110 x 94 x 41
Supported standards	-	EN50494, EN50607

3-way dSCR Smart Splitter 4605

Standard **splitters** can give collisions when two commands come at the same time or when one of the set-top boxes uses a permanent high voltage. A smart splitter captures the commands of the different set-top boxes and serializes them to guarantee no collisions happen.

- indoor housing
- 3-way smart splitter for dSCR application
- support the following standards: EN50494 and EN50607
- no power adapter needed
- buffers and sends out the different command signals

Specifications 4605

Outputs	-	3
Frequency	MHz	5 - 2150
Insertion Loss	dB	9
Return loss in/out	dB	> 10
DC power pass	mA	50 max.
Input voltage	VDC	12 min. / 20 max.
DiSEqC	-	DiSEqC compliant
SCR standards	-	EN50607 and EN50494
Dimensions	mm	114 x 56 x 35

Power Inserter 9669

The **power inserter** enables you to add DC-power on to a coaxial cable.

- dSCR power inserter for trunk powering

DiSEqC dSCR Inserter 9670

This **DiSEqC Power inserter** combines the DiSEqC commands from the STB with the power from the external power adapter.

- **9670KIT: 9670 with Power adapter (ref. 2462)**

Power Inserter 9930

The 9930 is a **satellite power inserter**, which can be used to ensure a universal LNB is locked on the correct satellite band. Each of the 4 inputs can be configured to deliver the desired control signals (13/18V + 0/22 kHz). The selected control signal is indicated by a bi-color LED.

- 4 satellite inputs / 4 satellite outputs
- frequency range: 5-2400 MHz
- current/input: up to 350 mA
- low insertion loss: <1 dB
- independent satellite band for each input (indicated by bi-color LED)

Specifications 9930(UK)

Inputs	-	4
Frequency range	MHz	5 - 2400
Insertion Loss	dB	< 1
Isolation between ports	dB	> 35
Return loss	dB	> 10
Control signals	VDC	switchable: 13/18/13 + tone/18 + tone
Added power supply adapter	-	20V - 1A
Dimensions	mm	158 x 102 x 51

Line Amplifiers 9654 - 9657 - 9658

The AGC & ASC Wideband Amplifier **ref. 9657** optimizes your Wideband V/H signal in real-time. To do so, it uses Automatic Gain Control (AGC) and Automatic Slope Control (ASC). Product and output power are optimized for feeding optical transmitters.

- compatible with Wideband LNBs
- Automatic Gain Control (AGC) and Automatic Slope Control (ASC) on both satellite lines (V/H)
- DC input (via F-conn) for powering trunk line amplifiers & LNB
- selectable between Wideband LNB (290 - 2400 MHz) and Universal LNB (950 - 2150 MHz)

The AGC & ASC Satellite & Cable Amplifier **ref. 9658** optimizes your Wideband V/H (290-2340 MHz) and Cable (87-862MHz) signal in real-time. To do so, it uses Automatic Gain Control (AGC) and Automatic Slope Control (ASC). An ideal launch amplifier for Multiswitch systems with a Cable/Terrestrial path.

- Automatic Gain Control on all lines (V/H/Cable) and Automatic Slope Control on both satellite lines (V/H)
- DC input (via F-conn) for powering amplifier and LNB
- selectable between Wideband LNB (290 - 2400 MHz) and Universal LNB (950 - 2150 MHz)

The wideband amplifier **ref. 9654** is designed for wideband applications, where satellite frequencies from 290 MHz to 2340 MHz are used. The amplifier has two inputs, one for the vertical and one for the horizontal feed. The low band and high bands are combined on one feed. This amplifier is compatible with wideband LNBs

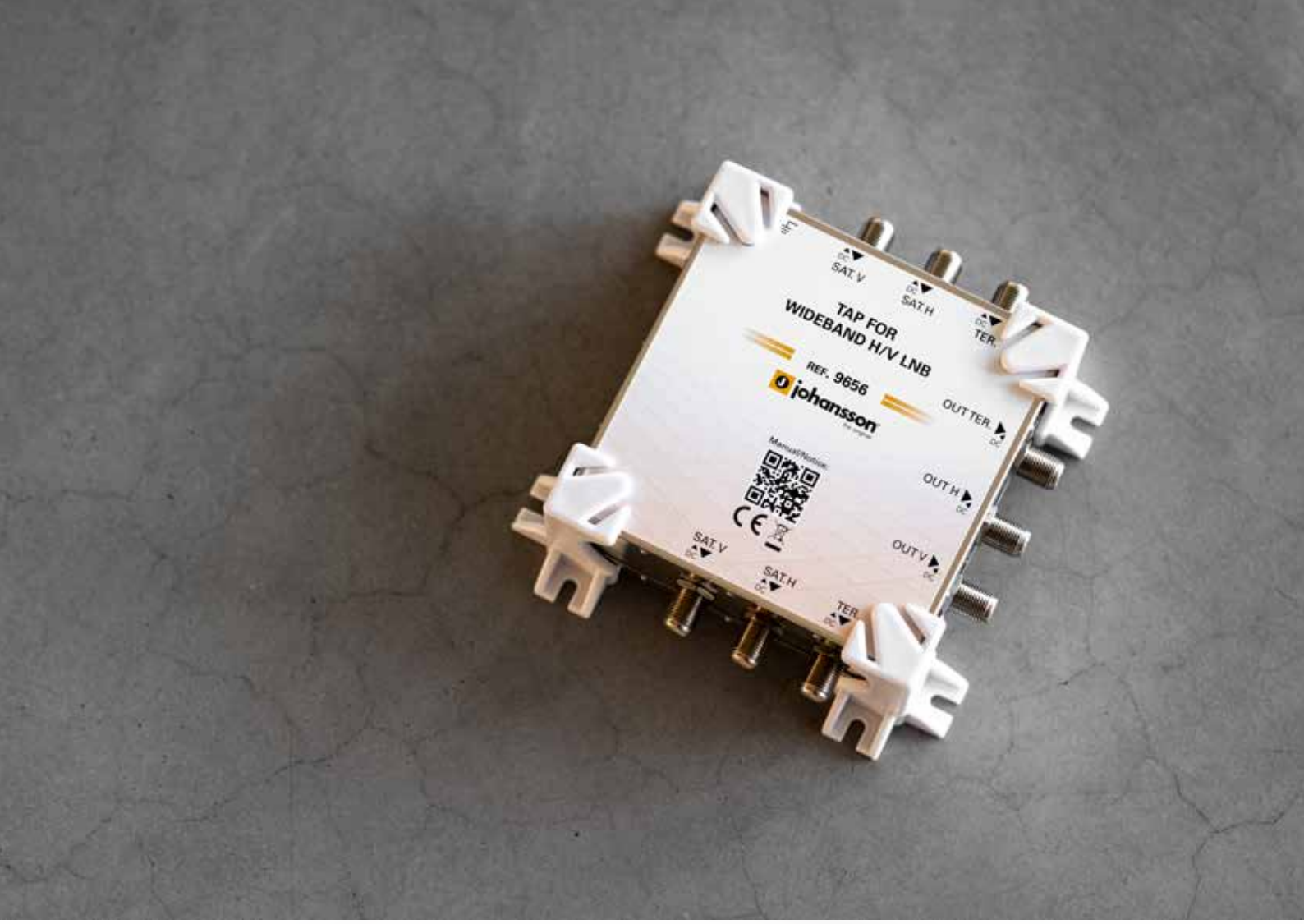
- separate adjustment for gain and slope on every line
- DC input (via F-conn) for powering trunk line amplifier & LNB
- works from 12 to 20 VDC
- 290-2400 MHz

Specifications 9654 - 9657 - 9658

		9654	9657	9658
Inputs	-	2 SAT (V/H)	2 SAT (V/H)	2 SAT (V/H) + 1 Cable
Outputs	-	2	2	3
Frequency range	MHz	290-2400 (Wideband)	290-2400 (Wideband) 950-2150 (Universal)	Sat.: 290-2400 (Wideband) Sat.: 950-2150 (Universal) Cable.: 87 - 862 Return Path: 5 - 65
Gain	dB	30	15	Sat.: 10 - 30 dB(sloped) Cable.: 5 - 25 dB
Noise figure	dB	5	5	Sat.: 5 dB - Cable.: 6 dB
Gain adjustment	dB	15	20 (automatic)	Sat.: 20 dB (automatic) Cable.: 20 dB
Slope adjustment	dB	15	15 (automatic)	10 (automatic)
Output level	dBµV	110 (-35 dB/IM3)	70* (Switch position 1 = 4 to 16 splits) 77* (Switch position 2 = 17 to 64 splits)	Sat.:113** (-35 dB/IM3) Cable.: 105**
Consumption	-	150mA 20 VDC external power supply or input/output	250mA 12 - 20 VDC external power supply or input/output	400 mA 12 - 20 VDC external power supply or input/output
Dimensions	mm	129 x 114 x 51	129 x 114 x 51	129 x 140 x 51

* Optimized for optical systems

** Optimal to use as launch amplifier for dSCR systems


SAT V
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TAP FOR
WIDEBAND H/V LNB
REF. 9656
johansson
OUT TER.
Manual/Notice:
OUT H
OUT V
SAT V
SAT H
TER.


WIDE IN:
V
H
9646
Wideband to Quattro Converter
johansson
Manual/Notice:
VL
HL
VH
HH

Wideband Distribution

New way of distributing signals

Wideband Satellite Distribution is a new and **more efficient** way of distributing satellite signals. While in universal LNBs, the Ku band is split in a low and high part for both vertical and horizontal polarisation, the wideband LNB converts each polarisation as a whole, leaving only 2 cables coming from the LNB. This is a much more efficient way of distribution, with the following benefits:

- lower consumption in all products of the distribution
- lower cost of the products
- less cables needed, making the installation cheaper
- less connections, which leads to a more reliable system

Wideband Satellite Distribution
9720 - 9653 - 9654 - 9646

Wideband LNB 9720

- LNB, able to receive 1 Ku satellite orbital slot
- 1 Horizontal and 1 Vertical output
- low noise
- output frequency range: 290-2340 MHz
- LO frequency: 10,41GHz
- 9 - 20 VDC / 50mA

Line Amplifier 9653

- sloped gain for compensating coaxial cable losses
- 40-2400 MHz
- 13 - 18 VDC / 60mA

Trunk Amplifier 9654

- separate adjustment for gain and slope on every line
- DC input (via F-conn) for powering trunk line amplifier & LNB
- works from 12 to 20 VDC
- 290-2400 MHz

Wideband to Quattro Converter 9646

The **wideband to quattro converter** (ref. 9646) makes it possible to upgrade a complete system to a wideband application, without disabling the homes that do not have wideband tuners.

- converts a wideband LNB (V,H) into a quattro LNB (VL, HL, VH, HH)
- DC pass through on VL to power the wideband LNB
- ideal for systems with a mix of new wideband set-top boxes and other set-top boxes

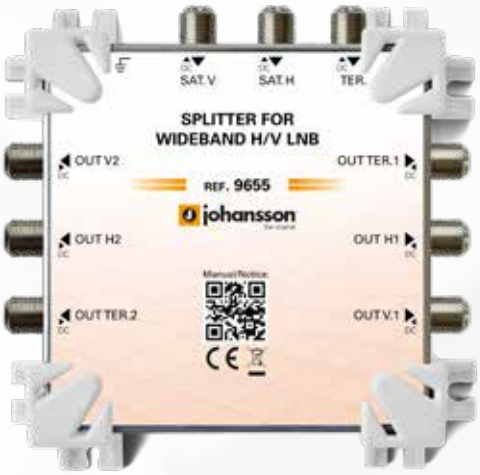
Wideband Satellite Distribution
9655 - 9656 - 9657 - 9658

AGC & ASC Wideband Amplifier 9657

- optimized for optical systems
- compatible with Wideband LNBs
- Automatic Gain Control (AGC) and Automatic Slope Control (ASC) on both satellite lines (V/H)
- DC input (via F-conn) for powering trunk line amplifiers & LNB

AGC & ASC Satellite & Cable Amplifier 9658

- optimized as launch amplifier for dSCR systems
- Automatic Gain Control on all lines (V/H/Cable) and Automatic Slope Control on both satellite lines (V/H)
- DC input (via F-conn) for powering amplifier and LNB (Optional power supply (ref. 9933))
- selectable between Wideband LNB (290 - 2400 MHz) and Universal LNB (950 - 2150 MHz)



Wideband Splitter 9655

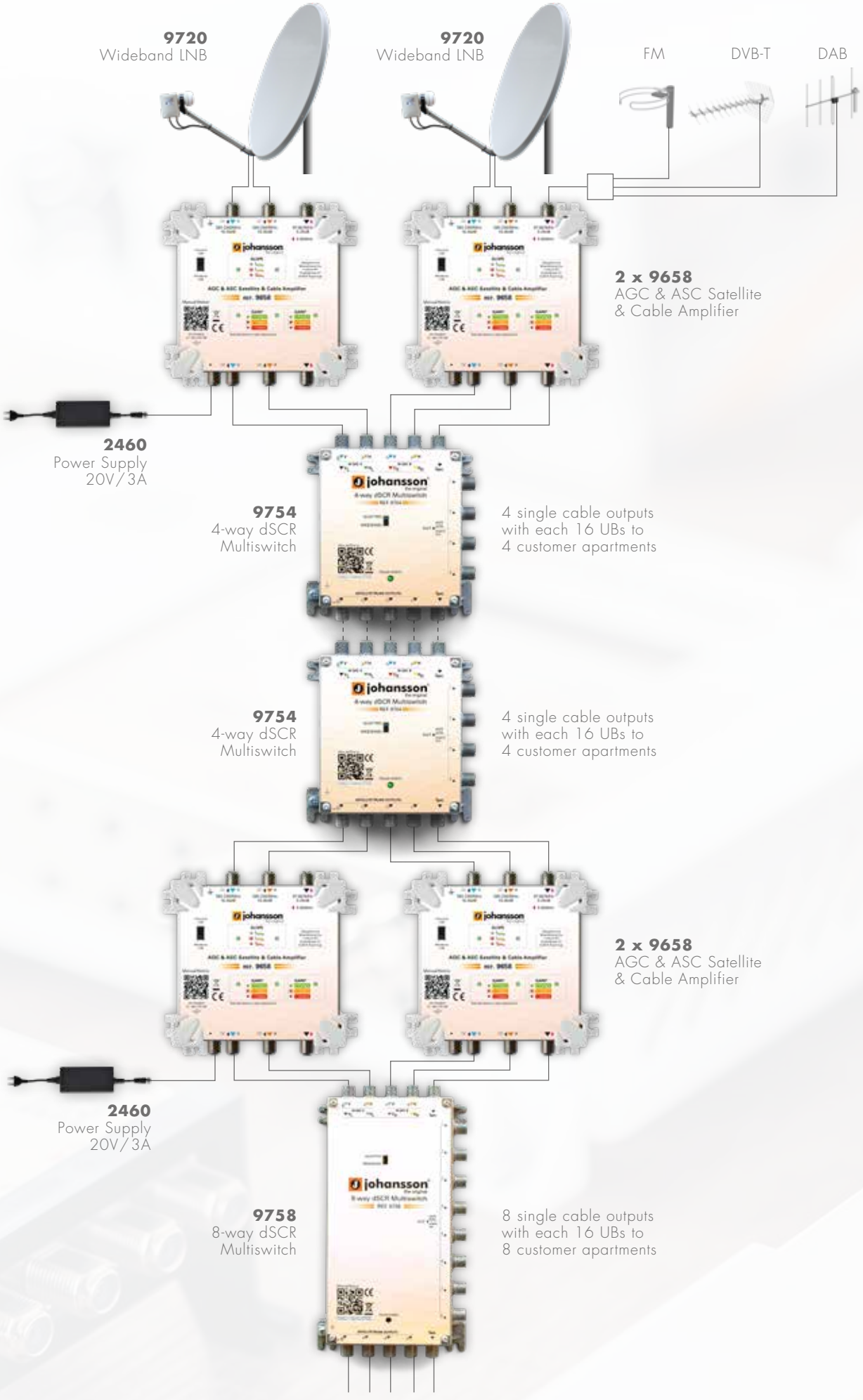
- 2-way splitter for wideband trunklines (H/V)
- Low insertion loss
- DC power pass
- 40-2400 MHz

Wideband Tap 9656

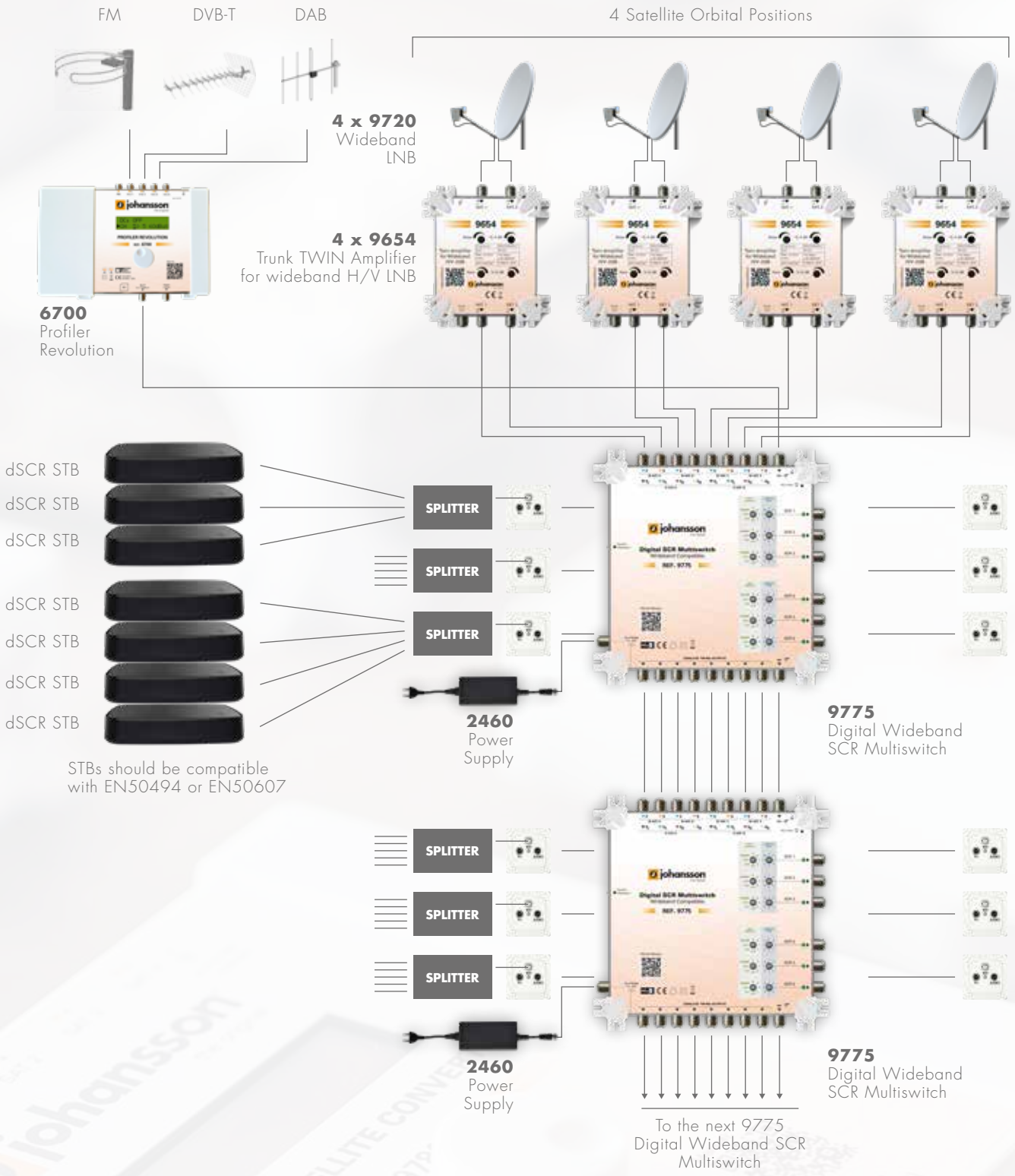
- 2-way tap for wideband trunklines (H/V)
- Low insertion loss
- DC power pass
- 40-2400 MHz

Johansson Schematics

Wideband Application

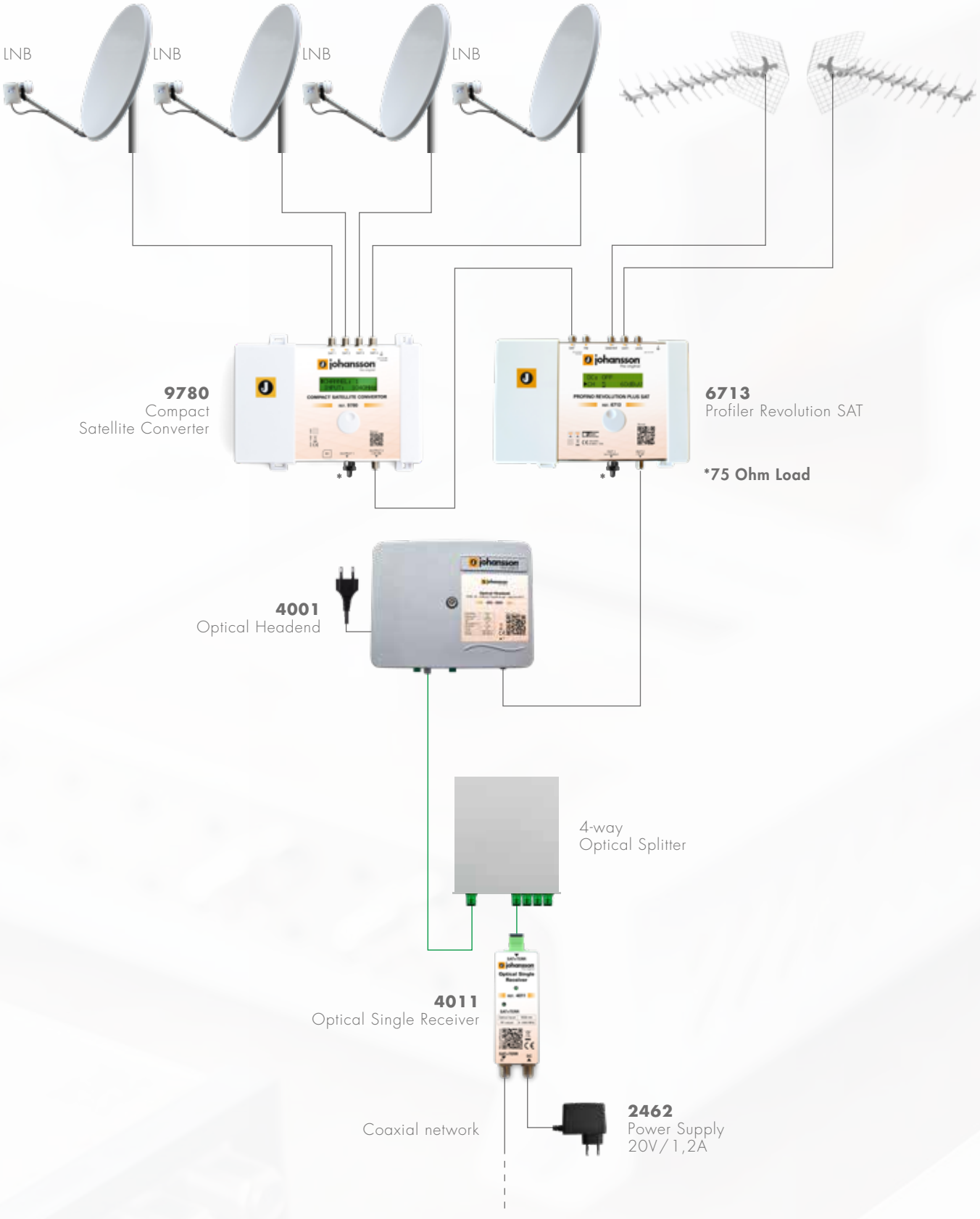


Johansson Schematics
Wideband Application



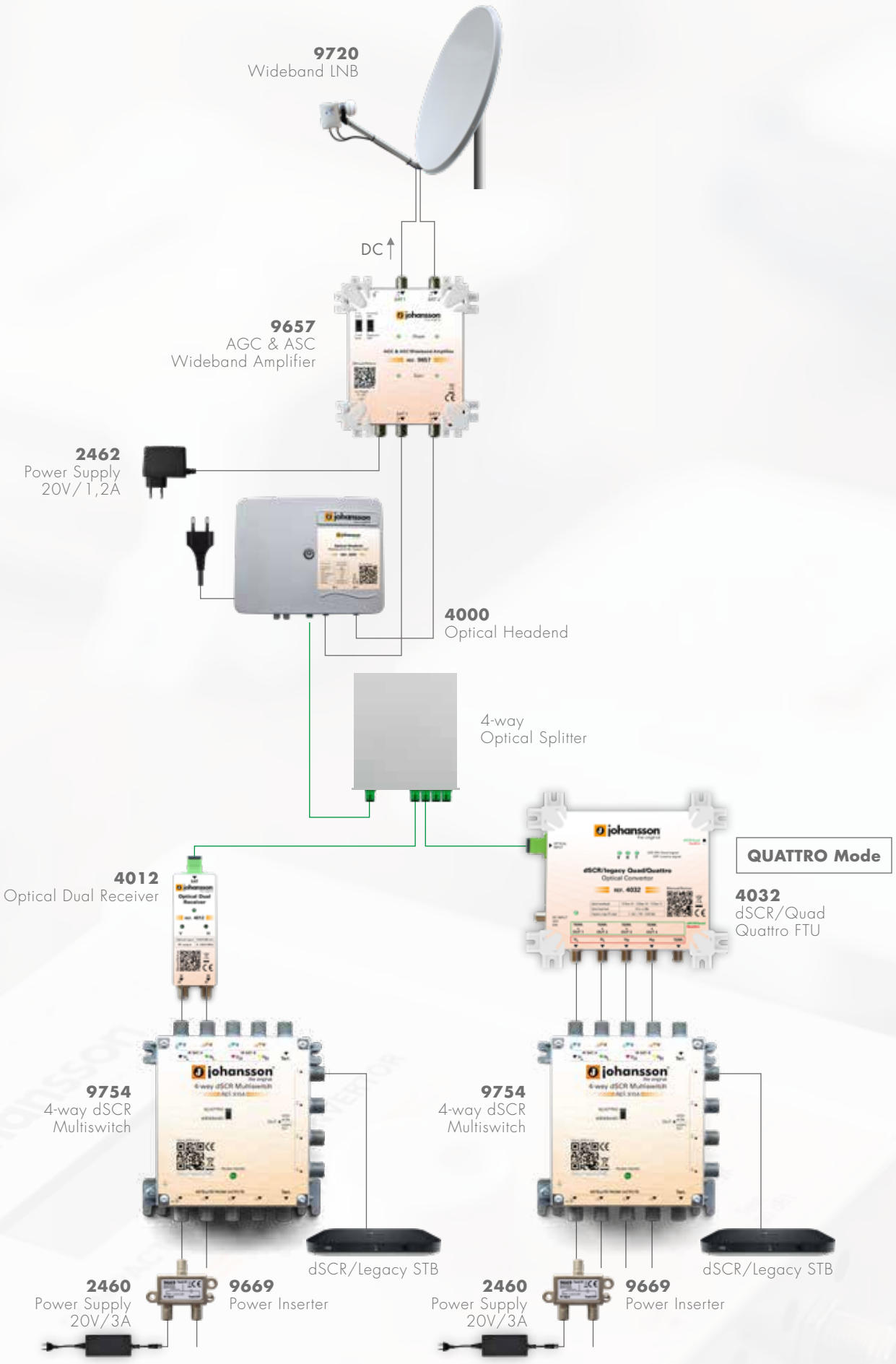
Johansson Schematics

Hybrid Channel Stacking Fiber Solution



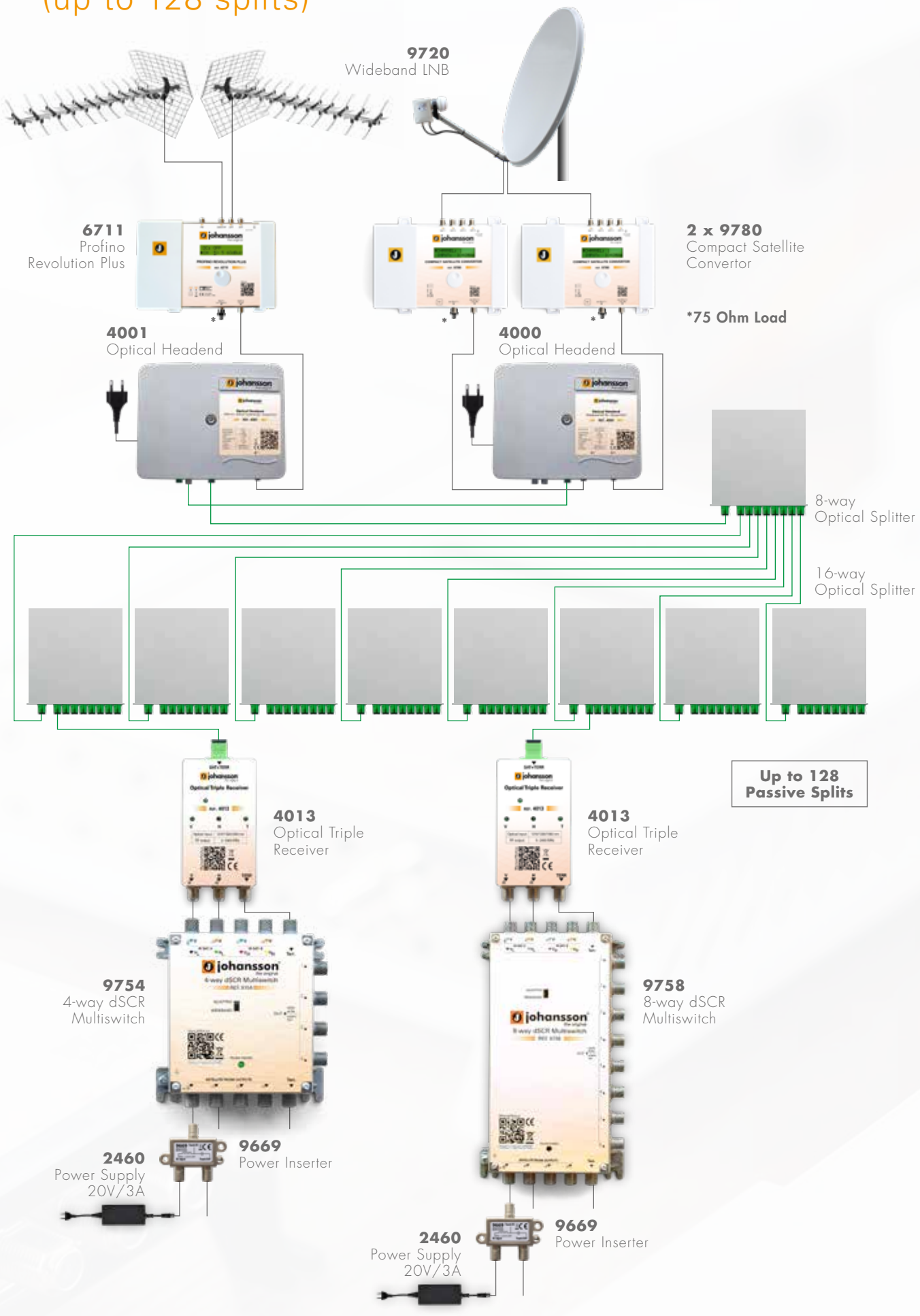
Johansson Schematics

Wideband to SCR (up to 64 splits)



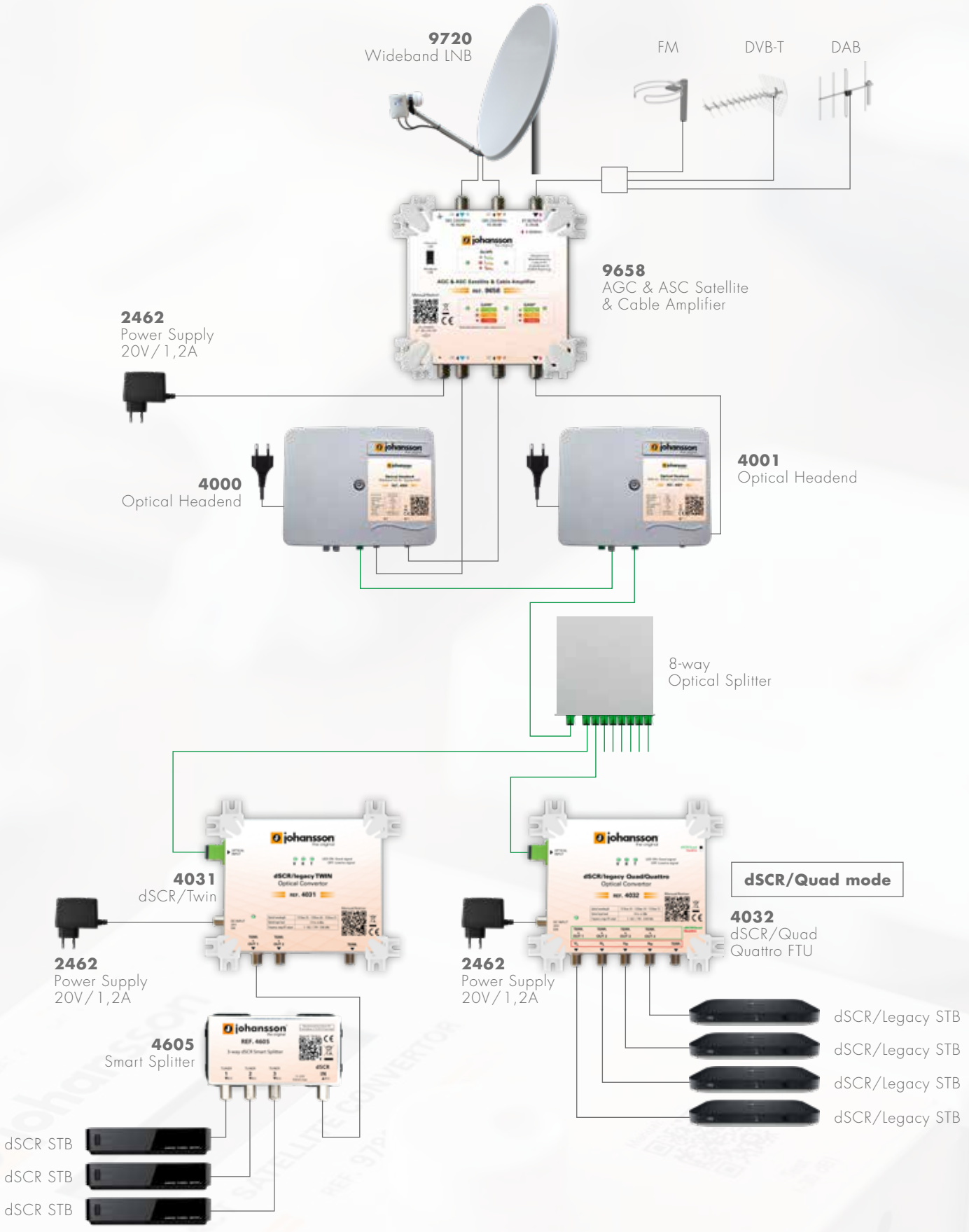
Johansson Schematics

Hybrid dSCR Solution: Wideband to SCR + Terrestrial (up to 128 splits)



Johansson Schematics

Legacy and dSCR: Wideband to SCR + Terrestrial (up to 128 splits)




TITANIUM
Compact Satellite Transmodulator
johansson
the original
CONTROL
RF IN
RF OUT

Compact and Modular Headends

Wide range of headends

Without a doubt, Johansson has a nice offering of (Digital) **Compact and Modular Headends**. This versatile range consists of A/V, satellite, cable, terrestrial, HDMI solutions. With the new Remote Management Unit, control, monitoring and alarming (e-mail notifications) is possible.

Do you need qualitative and stable equipment for a small, medium-sized or big hospitality project? Well, Johansson is your best option. Because you'll be surprised how our (Digital) Compact and Modular Headends will make your project more successful!

HDMI Modulator
8201 - 8202 - 8203

HDMI to **multi-standard modulator** with 1 HDMI input and 1 RF input - output. Convert your local HDMI signal into an RF signal, ready for distribution over coaxial cables. Our HDMI modulators are suitable for 24/7 usage, which makes them one of the most reliable HDMI modulators on the market.

- 1 HDMI input, capable of receiving all resolutions up to 1080p60
- 1 RF input, to by-pass terrestrial or cable signals
- 1 RF output
- perfect picture thanks to a MER comparable to other premium headend equipment
- easy to use menu structure, in combination with the Johansson rotary/push button
- optimized for cascading multiple modulators on your coaxial network smallest housing in its range

Specifications 8201 - 8202 - 8203

		8201	8202	8203
Video resolution	-	576i up to 1080p (720p50 recommended)		
Video encoding	-	H264 / AVC		
Audio encoding	-	MPEG 1 Layer II / AAC		
Connector type	-	HDMI type A		
Frequency	MHz	5 - 1218		
Loss to RF output	dB	2		
Modulated channel frequency	MHz	174 - 1218		174 - 790
Output level	dBµV	59 - 99 (adjustable)		47 - 79 (adjustable)
MER	dB	Typ. 38		
Basic configuration	-	Country I Output type I Output frequency I Output level I LCN I Channel I Name		
Advanced configuration	-	RF I Video & Audio I SID I PMT, VPID, APID, I NIT, ONID I PDS I TS ID		
Power	-	Input Voltage: 12 VDC I Consumption: 5W Typ. (6W max.) I Jack Ø 2.1 mm		
Dimensions	mm	155 x 120 x 60		
Weight	kg	0.6		
Accessories	-	12V power adapter		

HDMI Modulator		8201 + 8202 + 8203	8202	8202	8202	8202	8201
Output type	-	DVB-T	DVB-C	ATSC-T	ATSC-C	DTMB	ISDB-T
Bitrate	Mbps	2 - 23		2 - 15	2 - 23		
Channel bandwidth	MHz	6, 7 or 8	2 to 8	6	6	8	6
Constellation	-	COFDM (QPSK / 16QAM / 64 QAM	16 QAM 32 QAM 64 QAM 128 QAM 256 QAM	8VSB	64 QAM 256 QAM	QPSK QAM-4NR 16QAM 32QAM 64QAM	COFDM (QPSK / 16QAM / 64 QAM)
Other settings	-	Code rate Guard Interval 2K - 8K	-	-	-	Interleave Code rate 2K - 8K Sync frame PN phase	Code rate Guard Interval 2K - 8K

HDMI Modulator

HDMI modulator

HDMI to **multi-standard modulator** with 1 HDMI input and 1 RF input - output.
Convert your local HDMI signal into an RF signal, ready for distribution over coaxial cables.
Our HDMI modulators are suitable for 24/7 usage, which makes them one of the most reliable HDMI modulators on the market.

HDMI Streamer 8210

The Johansson **HDMI Streamer** is designed for small to medium-sized projects. It puts an HDMI video signal on your local network. This gives the end-user the flexibility to see real-time video content on their preferred (mobile) device: smartphone, tablet, laptop or TV.

- enable a HDMI source on your local network using the built-in webpage (HLS unicast)
- multicast a HDMI source for an IPTV application (UDP multicast)
- publish your live stream to an online platform (RTMP)
- HDMI loop-through for simultaneous viewing on a local TV

Specifications 8210

Number of inputs	-	1 x HDMI
Outputs	-	1x IP Ethernet RJ-45 jack (for streaming+WebGUI) 1 x HDMI (loop-through)
HDMI input	-	Video resolution : 576i up to 1080p Video encoding : H264/AVC Video bitrate Encoding: from 1 Mbps to 30Mbps Audio encoding : AAC/MPEG2 Audio bitrate Encoding 32 -192 Kbps
Streaming port	Mbps	10/100
Ethernet OTT encapsulation	-	HLS (Apple HTTP Live Streaming) (unicast)
Ethernet multicasting	-	Possible to output UDP multicast
Simultaneous users	-	Up to 50 (depending on the bitrate and the network infrastructure)
Input resolution	-	Up to 1080p60 (720p50 recommended)
Supported playback	-	All HTML 5 browsers on Android/iPhone/Mac/PC/SmartTV/... No need to install mobile application or additional software
Configuration	-	Network/login/input encoder settings/output multicast settings
Power consumption	W	5
Operating temperature	°C	0 to +50 (for indoor use only)
Dimensions	mm	155 x 120 x 60
Weight	kg	0.6
Accessory	-	12V power adapter

Set Top Box

Handheld Camera

CCTV Camera

Video Player

WebCam

Laptop/PC

HDMI

8210
HDMI Streamer

Router, Switch
or Hotspot

LAN

WAN

Laptop/PC

Tablet

Smartphone

Set Top Box

SMART Tv

Watch on **any** (mobile) screen

Titanium 4/8/8x8
8700 - 8701 - 8703

Compact headend with 4/8 tuners, 4/8 output MUXs (DVB-T/C) and 2/4 CI slots. **Titanium** is our newest compact headend solution that is suitable for small to medium-sized budget-friendly projects.
The transmodulator with 4/8 tuners allows for very fast installation.

- standalone frame with built-in power supply
- 8700: 4 tuners, 2 CAM, 4 MUX
- 8701: 8 tuners, 2 CAM, 4 MUX
- 8703: 8 tuners, 4 CAM, 8 MUX
- **ref. 8751 remote access with standalone RMU (page 64)**

Specifications 8700 - 8701 - 8703

		8700	8701	8703
Inputs	-	4 x RF inputs		
Tuners	-	4 tuners (4 transponders)	8 tuners (8 transponders)	
Frequency range	MHz	950 - 2150		
Level	dBµV	44 to 84		
Bandwidth	MHz	36		
Modulation	-	DVB-S2: QPSK, 8PSK / DVB-S: QPSK		
DC remote power at RF input	-	13 V/18 V/22 kHz/DiSEqC A-B-C-D		
Integrated multiswitch	-	Yes, allows flexible routing of satellite programs to multiplexes (QAM or COFDM)		
Configuration	-	Built-in webserver accessible via management port		
Encoded programs	-	From all 4 tuners. Can be routed through 1 or 2 CAMs and can be decoded using multi-service CAMs	From all 8 tuners. Can be routed through 1 or 2 CAMs and can be decoded using multi-service CAMs	From all 8 tuners. Can be routed through 1, 2, 3 or 4 CAMs and can be decoded using multi-service CAMs
Outputs	-	1 with 4 MUXs (DVB-T or DVB-C) + 1 loop-through		1 with 8 MUXs (DVB-T or DVB-C) + 1 loop-through
DVB-T output	Mbps	Up to 31.7 / MUX		
DVB-C output	Mbps	Up to 51.3 / MUX		
Power consumption	W	22 (excl. external LNBs)		
Dimensions	mm	345 x 70 x 182		
Operating temperature	°C	0 to +50		


POWER
CAM
TITANIUM
Compact Satellite Transmodulator
johansson
the original

Universe (Pro 3) 8600 - 5600

Universe

The **Universal Compact Headend** (ref. 8600) enables you to receive any transponder from satellite, terrestrial or cable and put it on your coaxial and IP netwok.

- receives 1 transponder from any DVB source (satellite, terrestrial or cable)
- decrypts the PayTV channels, when a professional CAM is inserted
- puts the demodulated transponder on your private coaxial and IP network
- can work standalone to insert channels in your existing network
- more products can be combined to a make a complete headend:
  - cascadable inputs and outputs
  - remote powering capabilities
- compatible with SD and HD, with MPEG2 and MPEG4
- perfect picture quality thanks to a MER, comparable to premium headend equipment
- Plug&Play thanks to a built-in WebGUI

Universe Pro 3

The **rackmountable Universal Compact Headend** (ref. 5600) enables you to receive any transponder from satellite, terrestrial or cable and put it on your coaxial and IP netwok.

- receives 3 transponders from any DVB source (satellite, terrestrial or cable)
- transport stream: SPTS/MPTS (Full MPTS from DVB input transp.)
- supports LCN
- Plug&Play thanks to a built-in WebGUI

Specifications 8600 - 5600

		8600	5600
Inputs	-	1 with passive loop-through (-2dB)	3
Tuners	-	1	3
Frequency range	MHz	42 - 2150	
Input level	dBµV	44 to 89	
Standard	-	DVB-S/S2 I DVB-T/T2 I DVB-C	
DC remote power for LNB or LNA	V mA	0/13/18/22kHz/DiSEqC, EN50494, EN50607 350	
Outputs	-	1 RF with passive loop-through (-2 dB)	1 RF with passive loop-through (-8 dB)
Multiplex	-	1	3
Frequency range	MHz	174 - 862	
Output level	dBµV	57 to 102 (adjustable)	54 to 99 (adjustable)
Standard	-	DVB-T/ISDB-T	
MER	dB	40	
Ethernet output	-	1 GB Ethernet	3 GB Ethernet
Ethernet standard	-	IEEE 802.3ab 10/100/1000 Base-T	
Ethernet protocol	-	Multicast IP / UDP	
CI Slot	-	1	3
Input voltage	VDC	12 - 20	100 - 240, 50/60 Hz
Power consumption	W	7 (without CAM and without remote power)	30 (without CAM and without remote power)
DC jack	mm	Ø 2.1	-
Powering remote units	-	Yes, 1 unit can power other units	
Operating temperature	°C	0 to +50	
Dimensions	mm	222 x 142 x 50	19 inch x 1RU x 240
Weight	kg	1.1	3.4
Accessories	-	15V power adapter 1 Ethernet cable	1 Ethernet cable

Octo AV Modulator 8180

The compact 8 channel analog modulator upconverts 8 analog CVBS signals (composite video baseband signal) independently to 8 VHF or UHF channels. It is designed for systems that have not yet switched to DVB-T

- 8 analog inputs (each 1 video cinch + 2 audio cinch (L & R))
- processes up to 8 analog channels (PAL, SECAM, NTSC)
- 1 RF output + 1 Test output (-30 dB)
- easy to configure with the Johansson button and 4 digits display
- selectable Region, Standard, Mode, Output Channel
- adjustable RF Level, Audio Level and Video Level
- very compact housing with detachable power supply
- low power consumption

Standalone RMU 8751

The Standalone Remote Management Unit (RMU) enables you to remotely configure and monitor a specific headend installation. This drastically reduces on-site maintenance, saving you time and money.
The RMU is a very smart and powerful solution that connects with uCloud (www.ucloudserver.com) , a server hosted by UnitronGroup. The UUI tool that runs on this server enables you to connect to any of your installations with any PC or Internet-connected device.

- wall-mountable module
- very simple installation (plug-and-play)
- no network knowledge needed
- very cost-efficient solution for remote monitoring and alarming
- compatible with Titanium

Digital Modular Headend
ProFlex 5500 - 5501

The new **satellite module** has 4 inputs allowing the reception of 4 different satellite bands per module. Because the module has 8 satellite tuners and a built-in multiswitch, reception of 8 different transponders coming from any of the 4 input satellite bands is possible.

Depending on the type of configuration, up to 8 DVB-T/C multiplexes, 4 MPTS or 64 STPS streams can be distributed per module, offering you one of the most flexible and cost-efficient solutions available on the market!

- versatile: one module for multiple applications
- flexible: tailor-made configuration
- future proof: confuguration upgradable
- scalable: feature upgradable
- feature activation can be time based
- 5501: module with up to 4 CAM slots and 8 Muxes
- **configure remotely with uCloud via RMU ref. 5951/5952 (page 64)**

ProCAT 5510

The 5510 is the professional digital modular headend for cable and terrestrial signals. Perfect picture quality of demodulated transponders on IP or coax.

- receives 1 DVB-T or DVB-C transponder
- decrypts the PayTV channels, when a professional CAM is inserted
- compatible with SD and HD, with MPEG2 and MPEG4
- **configure remotely with uCloud via RMU ref. 5951/5952 (page 64)**

Digital Modular Headend
ProHDMI Streamer 5520

The 5520 is a **ProHDMI Streamer** with 4 HDMI inputs and 1 ethernet streaming port.
Stream high quality video and optimize video experience with the ProHDMI streamers.

The HDMI to IP is a professional headend encoder with 4 HDMI inputs. By changing the bitrate via the easy-to-use built-in webserver, you can optimize the video experience of your audience.

- 4 HDMI inputs per module
- 1 ethernet IP streaming port
- 1 ethernet management port for system control and configuration
- **configure remotely with uCloud via RMU ref. 5951/5952 (page 64)**

ProHDMI Modulator 5530 - 5531

The **ProHDMI Modulator** with 4 HDMI inputs and 1 coaxial output port with up to 2 independent output MUXs (DVB-T/DVB-C/ATSC-T/ATSC-C/DTMB/ISDB-T). Stream high quality video and optimize video experience with the ProHDMI modulators. By changing the bitrate via the easy-to-use built-in webserver, you can optimize the video experience of your audience.

- 4 HDMI inputs per module
- 1 coaxial output port with up to 2 independent output MUXs
- 1 ethernet management port for system control and configuration
- **configure remotely with uCloud via RMU ref. 5951/5952 (page 64)**

Digital Modular Headend
Remote Management Unit 5951

The RMU is a very smart and powerful solution that connects with uCloud. uCloud enables you to connect to any of your installations with any PC or Internet-connected device.

- rack-mountable module
- very simple installation (plug-and-play)
- no network knowledge needed
- very cost-efficient solution for remote monitoring and alarming

With uCloud, you can do the following:
- application to manage and configure all your installations remotely
- monitoring of modules
- alarming
- google maps overview of all your installations
- one button-connect to any installation
- add pictures and comments regarding the installation
- safe remote access with certificates and password authentication
- solve problems from wherever you are, no need to go on-site for headend reconfiguration

RMU Smart Power Supply 5952

RMU with integrated power supply for redundancy

- RMU ref. 5951 with intelligent backup power supply
- input: 90 to 264 VAC
- output: 15 VDC / 10A
- application to manage and configure all your installations remotely
- monitoring of modules and alarming
- use 5050W as primary power supply
- one button-connect to any installation
- safe remote access with certificates and password authentication
- solve problems from wherever you are, no need to go on-site for headend reconfiguration

Digital Modular Headend
Power Supply Unit 5050W - 5051W

- input: 90 to 264 VAC
- output: 15VDC / 10A
- **5051W: suitable for redundancy**

Specifications 5050W - 5051W

		5050W	5051W
Input voltage	VAC	90 to 264	90 to 264
Output voltage	VDC	15	15
Output power	W	150	300
Dimensions	mm	5 RU x 12 TE x 180	5 RU x 12 TE x 333

Fan Unit 5062W

- fan Unit for DMH products (mountable in 19" rack)
- C-Type power cord (European plug)

Specifications 5062W

Input voltage	VAC	230
Power consumption	VA	35
Weight	kg	4,9
Dimensions	mm	19" x 2 RU x 155

Digital Modular Headend
19" Sub-Rack/Mini-Rack 5065W - 5066W

5065W

- 1 power supply and up to 9 modules can be inserted (not delivered with 19" sub-rack)
- delivered with 8 blank plates mounted

5066W

- ideal for small projects
- compact housing with integrated fan unit
- wall mountable rack for up to 4 modules

Specifications 5065W - 5066W

		5065W	5066W
Number of slots	-	Up to 9 modules (+ 1 power supply unit)	Up to 4 modules (+ 1 power supply unit)
Blank plates	-	8 blank plates mounted	3 blank plates mounted
Weight	kg	4.5	2.5
Dimensions	mm	19" x 5 RU x 367	370 x 227 x 255


UNITRON
johansson
the original


7329
johansson
the original
UHF Preamplifier 15-32 dB
Préamplificateur UHF 15-32 dB
Manual / Notice:
15 dB
32 dB
UHF
5G
LTE
(24V/60mA)
TV


7329
UHF
Manual / Notice:
15 dB
32 dB
johansson
the original
UHF Preamplifier 15-32 dB
Préamplificateur UHF 15-32 dB
5G
LTE
(24V/60mA)
TV

Amplifiers and Distribution Accessories

All about high quality TV signals

An essential part in the **distribution of TV signals** over coaxial cables is the amplifier. In domestic applications, this will typically be a masthead preamplifier while large collective installations require high-power distribution amplifiers. With the upcoming LTE (4G and 5G) signals in several countries, big disturbances will arise in the TV systems that are not LTE-protected. This is why we present a whole new range of amplifiers that makes your installations future proof, and offer you the best TV images possible!

Distribution Accessories
Johansson offers a wide range of high-quality accessories for the distribution of terrestrial, cable and satellite TV. All products are designed with the future LTE networks in mind and make sure your TV distribution system is future-proof!

SMART AMP: Auto-programming pre-amplifier
KIT7473(L1/L2) - KIT7474(L1/L2)

Meet the new Johansson **SMART AMP**!
Combining 2, 3 or 4 TV antennas for full HDTV reception has never been so easy.

- scans all channels, amplifies the weak signals while keeping the strong channels
- all output channels have an equal and stable output power
- treats even the most difficult situations with adjacent channels
- channels with the same frequency can be amplified in and re-located to the LTE band (switchable)
- fully automatic channel scan and process function upon double power start-up.
- fully automatic recognition of the applied country channel plan
- SAW filters for LTE (4G or 5G) protection on all inputs
- outdoor weatherproof mast-head housing
- DC Power over coax
- all ports ESD protected

Specifications KIT7473(L1/L2) - KIT 7474(L1/L2)

		KIT7473L1	KIT7474L1	KIT7473L2	KIT7474L2
Inputs	-	3	4	3	4
LTE rejection	-	4G (>CH60)		5G (>CH48)	
Channel plan	-	VHF BIII + UHF Automatic channel plan selection			
LTE band rejection	dB	>40			
Output	-	1			
Output power	dBµV	90			
Frequency range	MHz	174 - 862			
LTE band Re-use	-	L1 = CH61-69 (790MHz-862MHz) Switch ON-OFF		L2 = CH49-69 (694MHz-862MHz) Switch ON-OFF	
Adjacent channel isolation	dB	>35			
Input sensitivity	dBµV	minimum 40			
Power	-	12V/300mA (DC over coax) (350mA - 4 in)			
Power Supply	-	External power supply (ref. 2437 - 2 out) included			
Dimensions	mm	120 x 115 x 50			
Operating temperature	°C	-20 to +50			

Power Supply 2437

Outputs	-	2
Insertion loss	dB	4.5
Isolation between outputs	dB	10
AC input voltage/Frequency/Power	-	100 - 230 V~ / 50 Hz / 6,5 W
Insulation class	-	II
Standard	-	EN50083-2
DC output voltage	VDC	12
Output current	mA	400
Mounting	-	Indoor (IP20) / wall and DIN rail horizontal/vertical
Dimensions	mm	95 x 76 x 35

Discover the SMART AMP
Auto-programming pre-amplifier

Combining multiple terrestrial antennas for full HDTV reception in SFU is often a problem. Mostly, the signal from multiple antennas is combined using a simple splitter, but this solution doesn't work:

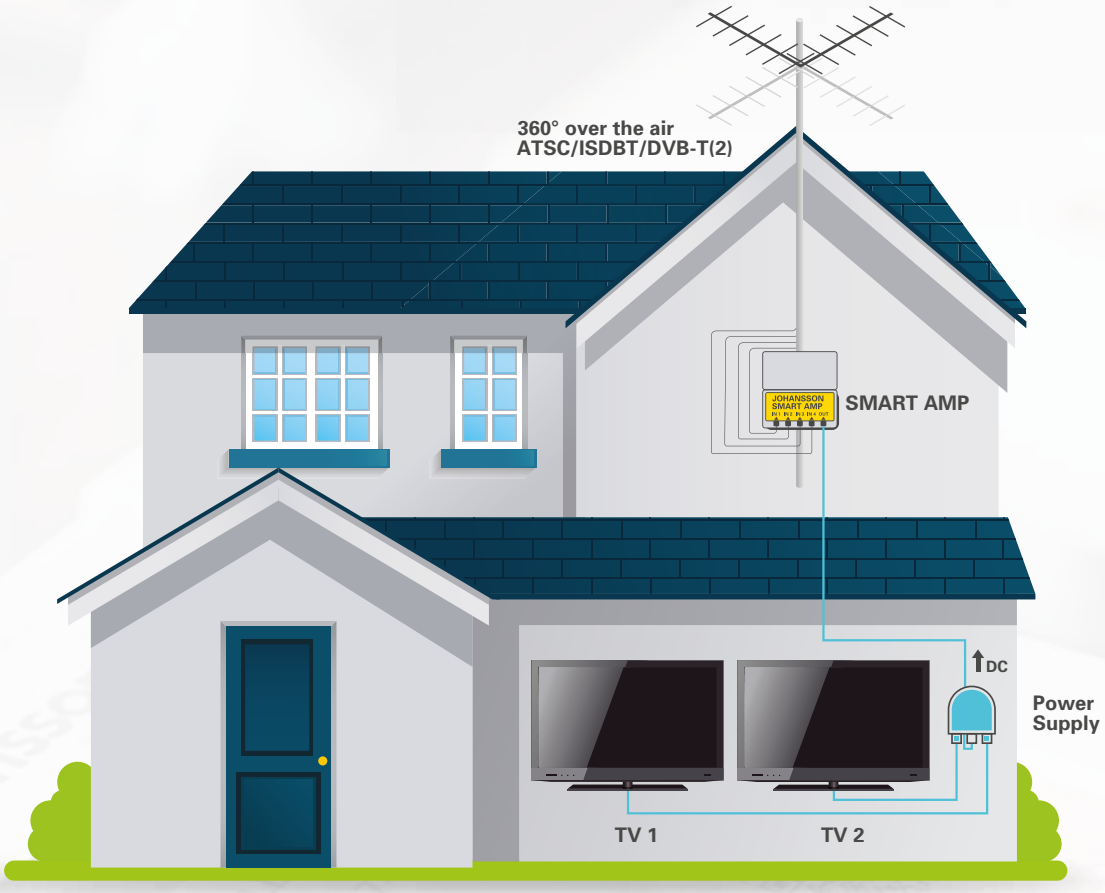
- loss of 4dB (minimum) = only half the signal left when combining 2 antennas
- channels with same Channel Number are lost
- poor isolation between adjacent channels
- lots of interruptions due to bad signal quality

TV viewers are looking more and more towards terrestrial TV reception. But the current situation is absolutely not optimal... So the market needs a solution that offers:

Better signal quality, more TV channels, Plug & Play installation

Your benefits:

Better signal quality
More channels
Plug & Play installation



PATENTED PRODUCT

Multiband amplifier
7781 - 7784 - 7785

Johansson offers a new range of **multiband distribution amplifiers**. The RED compliant amplifiers are fully LTE-ready and have a high gain. This ensures a perfect signal quality throughout the building. The amplifiers are far more efficient than their predecessors.

- 1 input (7781), 4 inputs (7784) or 5 inputs (7785)
- split-band amplifiers with interstage attenuators and dynamic range of 15 dB
- high gain, high output power
- high input power to ensure input overload is virtually impossible
- VDC switchable remote power
- compact housing
- detachable power supply (included)
- -30 dB test output

Specifications 7781 - 7784 - 7785

		7781	7784				7785				
Inputs	-	Cable	BI/FM	BIII/ DAB	UHF1	UHF2	BI/FM	BIII/ DAB	UHF1	UHF2	SAT
Frequency range	MHz	88-862 (cable) 5-65 (return path)	BI/FM: 47-108 BIII/DAB: 174-240 UHF1: 470-694 or 862 (switchable) UHF2: 470-694 or 862 (switchable)				BI/FM: 47-108 BIII/DAB: 174-240 UHF1: 470-694 or 862 (switchable) UHF2: 470-694 or 862 (switchable) SAT: 950-2400				
Gain adjustment	dB	15-35 -2,5 (passive RP)	10-30	10-30	15-35	15-35	10-30	10-30	15-35	15-35	10-35
Slope	dB	5-15 (at 15dB gain) 25-35 (at 15dB gain)	-				-				0-10
Max. input power (-60dBc)	dBµV	100	94	92	96	96	94	92	96	96	97 (-35dBc)
Max. output power (-60dBc)	dBµV	116	118	119	118	118	118	119	118	118	115 (-35dBc)
Noise figure	dB	7	4.5	4	5.5	5.5	4.5	4	5.5	5.5	7.5
Return loss	dB	>10									
Test Port	dB	-30									
Remote power	V	-	OFF - 12V - 24V								
DC Mode	mA	-	BIII/DAB: 100 UHF1: 100 UHF2: 100								
DC Mode SAT	V	-	-				OFF - 13V - 18V - 22kHz (Selection: internal, power inserter or external)				
SAT remote power	mA	-	-				350				
RED selectivity classification	-	0 and 1									
Supply voltage	VAC	100 - 240									
Power consumption	W	8	23				29				
Dimensions	mm	217 x 165 x 59									

Wideband indoor amplifier
7720L2 - 7722L2 - 7724L2

7720L2
- 1 wideband input: 47-694 MHz (VHF-UHF)
- 2 outputs
- adjustable gain: 13-28 dB
- power LED indicator
- 24 Vdc switchable remote power
- wall and DIN rail mountable

7722L2
- 1 input: 40-320 MHz + 470-694 MHz
- 2 outputs
- adjustable VHF gain: 15-30 dB
- adjustable UHF gain: 18-28 dB
- power LED indicator
- 24 Vdc switchable remote power
- wall and DIN rail mountable

7724L2
- 1 input: 40-320 MHz + 470-694 MHz
- 4 outputs
- adjustable VHF gain: 13-28 dB
- adjustable UHF gain: 15-25 dB
- power LED indicator
- 24 Vdc switchable remote power
- wall and DIN rail mountable

Specifications 7720L2 - 7722L2 - 7724L2

		7720L2	7722L2	7724L2
Frequency range	MHz	47 - 694	40 - 320 + 470 - 694	
Adjustable gain	dB	13 - 28	VHF: 15-30 / UHF: 18 - 28	VHF: 13 - 28 / UHF: 15 - 25
Noise figure	dB	4.0	3.0	
Max. output level*	dBµV	101	107	102
Return loss (input/output)	dB	10		
Isolation between outputs	dB	15		
Switchable remote power	-	24 VDC / 55 mA		
Power	-	230V~/4VA	230V~ /6,9VA	
Dimensions	mm	110 x 94 x 41	137 x 92 x 42	

TV-SAT indoor amplifier
9672L2

- 1 input/2 outputs
- LTE (5G) rejection
- adjustable gain
- gain cable: 23 / gain SAT: 30
- fixed slope on satellite
- DC power pass: switchable
- universal input power: 85-240V~

Specifications 9672L2

		9672L2
Output	-	2
Frequency range	MHz	47 - 694 / 950 - 2400
Gain	dB	Cable: 3 - 23 Sat.: 12 - 30
Slope adjustment	dB	8, fixed
Noise figure	dB	Cable: 4 Sat.: 6
Max. input level	dBµV	Cable: 90 Sat.: 98
Max. output level	dBµV	Cable: 106 (-60 dB IM3/2c) Sat.: 114 (-35 dB IM3/2c)
Isolation	dB	14
Power consumption	-	85-240 VAC / 50-60 Hz / 3 W
Selectable DC power pass	-	switchable (max. 300mA)
Dimensions	mm	137 x 92 x 42

UHF preamplifier (LTE/5G)
7322 - 7327 - 7328 - 7329

- 1 input/1 output
- LTE (4G) rejection
- low-noise
- power indication LED
- **KIT (with power supply ref. 2436):**
  - KIT7322
  - KIT7328
  - KIT7329

Specifications 7322 - 7327 - 7328

		7322	7327	7328
Frequency range	MHz		470-790 (Ch. 21-60)	
Gain	dB	10-25	15	15-35
Noise figure	dB	2.0	2.0	3.5
Input level	dBµV	80	78	82
Output level	dBµV	100	97	104
Power supply	VDC	24	5-24	24
Consumption	mA	35	20	35
Dimensions	mm		120 x 115 x 50	

Specifications 7322L2 - 7327L2 - 7329

		7322L2	7327L2	7329
Frequency range	MHz		470-694 (Ch. 21-48)	
Gain	dB	10-25	15	15-32
Noise figure	dB	2.0	2.0	2.5
Input level	dBµV	80	78	82
Output level	dBµV	105	97	108
Power Supply	VDC	24	5-24	24
Consumption	mA	50	20	65
Dimensions	mm		120 x 115 x 50	


johansson
the original
UHF Preamplifier 19-34 dB
Préamplificateur UHF 19-34 dB
7332
19 dB
34 dB
(12-24V/110mA)
TV
CE
Manual / Notice:
UHF
RED COMPLIANT
5G
lte

UHF Preamplifier (LTE/5G)
7332

- 1 input/1 output
- LTE (5G) rejection
- ultra low-noise
- 19-34 dB adjustable gain
- power indication LED
- 12-24 VDC operating voltage
- **KIT (with Power Supply ref. 2436):**
  - KIT7332

Specifications 7332

Frequency range	MHz	470-694 (Ch. 21-48)
Gain	dB	19-34
Noise figure	dB	2.0
Input level	dBµV	90
Output level	dBµV	110
Power supply	VDC	12-24
Consumption	mA	110 (12V) / 60 (24V)
Dimensions	mm	120 x 115 x 50

VHF/UHF preamplifier
7411 - 7412

- 1 x VHF (BIII/DAB) input / 1 or 2 UHF input
- 1 wideband output
- up to 111dBµV output power
- 5-23dB adjustable gain on VHF
- 12-32dB adjustable gain on UHF
- LTE (5G)
- ultra low-noise
- power indication LED
- 12-24 VDC operating voltage
- wall or mast mountable

Specifications 7411 - 7412

		7411		7412		
Inputs	-	VHF BIII/DAB	UHF Ch. 21- 48	VHF BIII/DAB	UHF1 Ch. 21- 48	UHF2 Ch. 21- 48
Frequency range	MHz	170-240	470-694	170-240	470-694	470-694
Gain	dB	5 - 23	12 - 32	5 - 23	12 - 32	12 - 32
Noise Figure	dB	2.5	1.5	2.5	1.5	1.5
Max. input level	dBµV	95	78	95	78	78
Max.output level (IM3: 2c/-60dB)	dBµV	111	108	111	108	108
Consumption	-	1,7 W / 120 mA (12V) - 70 mA (24V)				
Connectors	-	F				
Mounting	-	Mast or wall				
Dimensions	mm	122 x 98 x 56				

FM/DAB/UHF preamplifier (LTE/5G)
7415L2

- FM input, BIII / DAB input/UHF input
- 1 wideband output
- 12 dB gain on FM
- 15-30 dB adjustable gain on BIII / DAB
- 20-35 dB adjustable gain on UHF
- LTE (5G) rejection
- low-noise
- 24 VDC operating voltage
- wall or mast mountable

Specifications 7415L2

Inputs	-	BII (FM)	BIII/DAB	UHF Ch. 21-48
Frequency range	MHz	88-108	170-240	470-694
Gain	dB	12	15-30	20-33
Noise Figure	dB	4	2.0	3.2
Max. input level	dBµV	99	91	84
Max. Output level	dBµV	111	107	108
Power supply	VDC		24	
Consumption	mA		60	
Dimensions	mm		112 x 98 x 56	

Power Supply

When quality comes first

The Johansson power supplies are world-famous for its quality. Used in hundreds of thousands of households worldwide, we provide stable and high quality TV images to millions of TV viewers.

24V Power Supply 2436

- high-efficiency
- 2 outputs
- 24V stabilized
- short-circuit protection
- power LED indicator
- wall or DIN-rail mountable
- horizontal/vertical DIN-rail mounting

Specifications 2436

Outputs	-	2
Insertion loss	dB	4.5
Isolation between outputs	dB	10
AC input voltage/Frequency/Power	-	100 - 240 V~ / 50 - 60 Hz / 4.6 W
DC output voltage	VDC	24
Output current	mA	150
Mounting	-	Indoor (IP20)
Dimensions	mm	95 x 76 x 35

12V Power Supply 2437

- high-efficiency
- 2 outputs
- 12V stabilized
- short-circuit protection
- power LED indicator
- wall or DIN-rail mountable
- horizontal/vertical DIN-rail mounting

Specifications 2437

Outputs	-	2
Insertion loss	dB	4.5
Isolation between outputs	dB	10
AC input voltage/Frequency/Power	-	100 - 230 V~ / 50 Hz / 6,5 W
Insulation class	-	II
Standard	-	EN50083-2
DC output voltage	VDC	12
Output current	mA	400
Mounting	-	Indoor (IP20)
Dimensions	mm	95 x 76 x 35

LTE (4G) Filter 6023C48(C58)(C59)

- 30 dB LTE rejection
- in-line small housing
- indoor use

Specifications 6023C48 - 6023C58 - 6023C59

		6023C48	6023C58	6023C59
Frequency range	MHz	5-694	5-774	5-782
Cut off channel	-	48	58	59
Insertion loss	dB	1	1	1
LTE (4G) rejection CH50 - 69	dB	30	30	25
GSM rejection	dB	25	25	25
DC power pass	mA	500	500	500
Connectors	-	2 x F female	2 x F female	2 x F female
Mounting	-	Indoor Use	Indoor Use	Indoor Use
Dimensions	mm	72 x 22 x 17	72 x 22 x 17	72 x 22 x 17

LTE (4G) Filter
6024C48(FR) - 6024C58 - 6024C59

- high LTE (4G/5G) rejection
- indoor and outdoor mountable
- ref. 6024C48FR: filter approved by ANFR

Specifications 6024C48(FR) - 6024C58 - 6024C59

		6024C48	6024C48FR	6024C58	6024C59
Frequency range	MHz	5-694	5-694	5-774	5-782
Cut off channel	-	48	48	58	59
Insertion loss	dB	2.5	<1 (5 - 686 MHz) <2 (694 MHz)	2.5	2.5
LTE (4G/5G) rejection	dB	40	>5 (698 - 733 MHz) >25 (733 - 862 MHz)	45	40
GSM rejection	dB	15	>25	15	15
DC power pass	mA	500	500	500	500
Connectors	-	2 x F female	2 x F female	2 x F female	2 x F female
Mounting	-	Indoor/outdoor (indoor flange provided)	Indoor/outdoor (indoor flange provided)	Indoor/outdoor (indoor flange provided)	Indoor/outdoor (indoor flange provided)
Dimensions	mm	112 x 98 x 56	112 x 98 x 56	112 x 98 x 56	112 x 98 x 56

LTE (4G) Filter
6040C48 - 6040C58 - 6024C59

- UHF/Tetra filter
- indoor and outdoor mountable

Specifications 6040C48 - 6040C58 - 6040C59

		6040C48	6040C58	6040C59
Bandwidth	MHz	470-694	470-774	470-782
Channels	-	C21-48	C21-58	C21-59
Insertion loss	dB	1.5		
Rejection	dB	35		30
GSM rejection	dB	30		
DC power pass	mA	500		
Connectors	-	2 x F female		
Mounting	-	Indoor/outdoor (indoor flange provided)		
Dimensions	mm	112 x 98 x 56		

Wideband indoor splitter
4502 - 4503 - 4504 - 4506 - 4508

- 2, 3, 4, 6, 8-way wideband splitters
- low insertion loss
- nickel plated zinc diecast housing
- "F"-type connectors
- DC power pass from all output ports to the input port (diode protection)

Specifications 4502 - 4503 - 4504 - 4506 - 4508

		4502	4503	4504	4506	4508
Way	-	2	3	4	6	8
Frequency	MHz	5-2400	5-2400	5-2400	5-2400	5-2400
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	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 Combiner 1269 - 1353

- low-loss
- indoor/outdoor use

Specifications 1269 - 1353

		1269	1353
Inputs (DC power pass=*)	MHz	VHF: 40-230 * UHF: 470-862 *	BI-FM: 40-108 * BIII: 170-230 * UHF: 470-862 *
Insertion loss	dB	VHF: 0.5 UHF: 1.0	BI-FM: 1.0 BIII: 1.0 UHF: 2.0
Dimensions	mm	112 x 98 x 56	

DTT Line amplifier 7317

- low noise UHF line amplifier
- ideal to pump up low level signals and reject impulse noise in DTT reception
- powered with 5-24V of DTT (DVB-T) receiver

Specifications 7317

Band	-	UHF C 21- 69
Frequency	MHz	470-862
Gain	dB	15
Noise figure	dB	2.0
Max. Output level	dBµV	102
Consumption	mA	20
Voltage supply range	V	5 to 24
Dimensions	mm	72 x 22 x 17

Satellite line amplifier 9653

- sloped gain for compensating coaxial cable losses
- 40-2400 MHz (compatible with wideband LNB)
- 13-18 Vdc / 60 mA

Specifications 9653

Frequency range	MHz	40-2400
Gain	dB	5 (40 MHz) 20 (2340 MHz)
Noise figure	dB	7
Max. Output level	dBµV	110
Power supply	V	13-18 / 60 mA
DC power pass	mA	500 max.
Dimensions	mm	68 x 26 x 16

Twin DiSEqC multiswitch 9920

- switch for 2 TWIN LNB's combined with terrestrial

Specifications 9920

Frequency range	MHz	Terr.: 5-790 - Sat.: 950-2150
Insertion loss	dB	Terr.: 8 max. - Sat.: 4 max.
Switching control	dB	Tone Burst and DiSEqC 1.0/1.1
Isolation each SAT in/out	dB	40 min
Isolation SAT/TERR	dB	30 min
Current	mA	20 mA per receiver
DC power pass on SAT inputs	mA	350 max
Dimensions	mm	112 x 98 x 56

TV Sat combiner 9501 - 9506

- indoor/outdoor combiner
- DC power pass

Specifications 9501 - 9506

		9501	9506
Band/Insertion loss (DC power pass=*)	MHz	VHF-UHF 5-862/1 dB	VHF-UHF 5-862/2 dB
		SAT* 950-2150 /2 dB	SAT* 950-2150 /2.5 dB
Isolation	dB	> 15 (Terr.) > 30 (Sat.)	> 15 (Terr.) > 40 (Sat.)
Mounting	-	indoor use	outdoor use
Dimensions	mm	61 x 51 x 16	112 x 98 x 56


9501
IN / OUT+DC
johansson
CE
V-U / SAT combiner
5 - 860 MHz
TV
950 - 2300 MHz
SAT + DC

Attenuator - DC Block
9609 - 9631

- small housing
- adjustable attenuation: 0-20 dB
- DC power pass

- low insertion loss

Specifications 9609 - 9631

		9609	9631
Frequency range	MHz	700 - 2150	5 - 2300
Attenuation	dB	0-20 adjustable	1
DC current pass	dB	yes	-
Dimensions	mm	77 x 22 x 17	77 x 22 x 17

Priority Switch 9337

- 2 input priority switch

Specifications 9337

Frequency range	MHz	950 - 2150
Insertion loss	dB	< 3.5
Isolation	dB	> 15
Signaling bypass to LNB	-	22 KHz tone and 13/18V power
Switch control	-	Priority receiver gets priority (if voltage >10V)
DC loss	V	1.0 max.
Dimensions	mm	61 x 51 x 16

Distribution Accessories
Additional products

Taps		
4510	1 way tap	5-2400 MHz, 10 dB
4511	1 way tap	5-2400 MHz, 15 dB
4512	1 way tap	5-2400 MHz, 20 dB
4513	1 way tap	5-2400 MHz, 25 dB
4520	2 way tap	5-2400 MHz, 10 dB
4521	2 way tap	5-2400 MHz, 15 dB
4522	2 way tap	5-2400 MHz, 20 dB
4523	2 way tap	5-2400 MHz, 25 dB
4524	2 way tap	5-2400 MHz, 30 dB
4540	4 way tap	5-2400 MHz, 12 dB
4541	4 way tap	5-2400 MHz, 15 dB
4542	4 way tap	5-2400 MHz, 20 dB
4543	4 way tap	5-2400 MHz, 25 dB
4544	4 way tap	5-2400 MHz, 30 dB
4561	6 way tap	5-2400 MHz, 15 dB
4562	6 way tap	5-2400 MHz, 20 dB
4563	6 way tap	5-2400 MHz, 25 dB
4581	8 way tap	5-2400 MHz, 15 dB
4582	8 way tap	5-2400 MHz, 20 dB
4583	8 way tap	5-2400 MHz, 25 dB

NOTES

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