johansson®
the original

2026
catalogue

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.

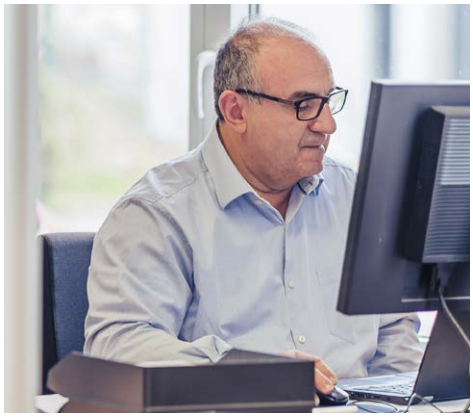
Don't go at it alone

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 have a fully electified car park.

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?

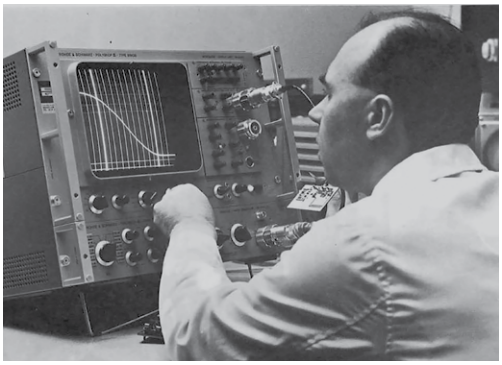
Patented innovations that will boost your business

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 60 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.



Profiler Revolution

Sharpest filters in the market

- Automatic channel scan
- Fastest installation
- Patented technology
- Sold in over 50 countries

Profiler Revolution

ref: 6700

AUTOSCAN

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 50 countries.

- Programmable terrestrial filter amplifier
- Smart & automatic channel scan
- 5 inputs: 4 VHF(DAB)/UHF and 1 B1+FM
- Read-out of input level strength: no need for field strength meter
- Can process and convert more than 50 channels (32 filters)
- Can process **DAB channels** and S-Band output channels
- 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
- Configuration possible in different languages (English, French, Italian, Spanish)
- **6700 with SAT input: Ref. 6702**

Inputs		4 VHF/UHF + 1 B1+FM
Outputs		1 main (B1+FM-VHF-S-UHF) + 1 test port (-30dB)
Frequency range	MHz	B1+FM: 47 - 108 I VHF: 174 - 240 I UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694 or OFF
Input level	dBµV	B1+FM: 37 - 77 I VHF: 37* - 109 I UHF: 37* - 109 (* For 64QAM with code rate 3/4)
B1+FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60 / 36 dB/IM3)	dBµV	120 / 131
VHF/UHF output power with 1 / 6 / 15 / 32 MUX	dBµV	118 / 114 / 109 / 106
Conversion		Yes (from any VHF-UHF channel to any VHF-S-UHF channel)
Add channels		Per 1, 2, 3, 4, 5 or 6 MUXes
Number of channels		More than 50 (32 filters)
DAB subchannel bandwidth	MHz	1,7
Gain	dB	B1+FM: 35 I VHF: >75 I UHF: >75
Gain adjustment	dB	B1+FM: 20 I VHF/UHF: Channel AGC
General attenuator	dB	20
VHF/DAB attenuator	dB	15
Slope adjustment	dB	15
Noise figure	dB	7
Selectivity	dB/1MHz	50
Output MER	dB	VHF: 35 I UHF: 35
ESD protection		All inputs
Remote voltage for preamp	V	12 or 24
Remote current	mA	100 (total for the 4 inputs)
Operating temperature	°C	-5 to +50
Power Supply	Vac	100 - 240
Power Consumption	W	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

ref: 6701

AUTOSCAN

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 50 countries.

- Programmable terrestrial filter amplifier
- Smart & automatic channel scan
- 5 inputs: 4 VHF(DAB)/UHF and BI+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
- Configuration possible in different languages (English, French, Italian, Spanish)

Inputs		4 VHF/UHF + BI+FM
Outputs		1 main (BI+FM-VHF-UHF) + 1 test port (-30dB)
Frequency range	MHz	BI+FM: 47 - 108 I VHF: 174 - 240 I UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694 or OFF
Input level	dBµV	BI+FM: 37 - 77 I VHF: 37* - 109 I UHF: 37* - 109 (* For 64QAM with code rate 3/4)
BI+FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60 / 36 dB/IM3)	dBµV	117 / 128
VHF/UHF output power with 1 / 6 / 15 / 32 MUX	dBµV	113 / 110 / 107 /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	BI+FM: 35 I VHF: >75 I UHF: >75
Gain adjustment	dB	BI+FM: 20 I VHF/UHF: Channel AGC
General attenuator	dB	20
VHF/DAB attenuator	dB	15
Slope adjustment	dB	15
Noise figure	dB	7
Selectivity	dB/1MHz	50
Output MER	dB	VHF: 35 I UHF: 35
ESD protection		All inputs
Remote voltage for preamp	V	12 or 24
Remote current	mA	100 (total for the 4 inputs)
Operating temperature	°C	-5 to +50
Power Supply	Vac	100 - 240
Power Consumption	W	15
Dimensions	mm	217 x 165 x 59
Weight	kg	0,8

Profino Revolution Plus

ref: 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 50 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**

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: 37* - 109 I UHF: 37* - 109 (* For 64QAM with code rate 3/4)
FM output power (60dB/IM3)	dBµV	113
VHF/UHF output power (60 / 36 dB/IM3)	dBµV	114 / 125
VHF/UHF output power with 1 / 6 / 15 MUX	dBµV	108 / 107 / 105
Conversion		Yes (from any VHF to VHF channel or from any UHF to 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
Noise figure	dB	7
Selectivity	dB/1MHz	50
Return Loss	dB	10
Output MER	dB	VHF: 35 I UHF: 35
ESD protection		All inputs
Remote voltage for preamp	V	12 or 24
Remote current	mA	100 (total for the 4 inputs)
Operating temperature	°C	-5 to +50
Power Supply	Vac	100 - 240
Power Consumption	W	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

Profino Revolution Lite

ref: KIT6714

AUTOSCAN

The **Johansson Profino Revolution Lite** is a simplified programmable filter amplifier exclusively for VHF-UHF signal reception and distribution. The device is remotely powered over coax. The auto-programming functionality helps you to simplify your installation and reduce setup time significantly.

- Programmable terrestrial filter amplifier
- Smart & automatic channel scan
- 1 FM/VHF/UHF & 2 VHF/UHF
- Read-out of input level strength: no need for field strength meter
- Can process and convert more than 50 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

Inputs		1 FM/VHF/UHF & 2 VHF/UHF
Outputs		1 (FM-VHF-S-UHF)
Input frequency range	MHz	FM: 88 - 108 / VHF: 174 - 240 / UHF: 470 - 694
Output frequency range	MHz	88 - 862
LTE Protection	MHz	694 (5G)
Input level	dBµV	VHF: 37* - 109 / UHF: 37* - 109 (* For 64QAM with code rate 3/4)
VHF/UHF output power (60 / 36 dB/IM3)	dBµV	114 / 125
VHF/UHF output power with 1 / 6 / 15 / 32 MUX	dBµV	108 / 108 / 105 / 102
Conversion		Yes (from any VHF-UHF channel to any VHF-S-UHF channel)
Add channels		Per 1, 2, 3, 4, 5 or 6 MUXes
Number of channels		More than 50 (32 filters)
Gain	dB	VHF: >65 / UHF: >65
Gain adjustment	dB	VHF/UHF: Channel AGC
General attenuator	dB	20
VHF attenuator	dB	15
Noise figure	dB	7
Selectivity	dB/1MHz	50
Return Loss	dB	10
Output MER	dB	VHF: 35 / UHF: 35
ESD protection		All inputs
Remote voltage for preamp	V	12 or 24
Remote current	mA	50 (total for the 3 inputs)
Operating temperature	°C	-5 to +50
Power Supply	VDC	12 (External PSU Ref. 2438)
Power Consumption	W	9
Dimensions	mm	190 x 165 x 55
Weight	kg	0,650

Power Supply 2438

Insertion loss	dB	0,5
Input-output connectors		Type F
AC input voltage / Frequency / Power		100 - 230 V~ / 50 Hz / 12,3 W
DC output voltage	VDC	12
Output current	mA	750
Mounting		Indoor (IP20) / wall and DIN rail horizontal/vertical
Dimensions	mm	95 x 76 x 35

Profinesse

ref: KIT6715

AUTOSCAN

The **Johansson Profinesse** is a simplified programmable filter amplifier. The auto-programming functionality helps you to reduce setup time significantly. The Profinesse combines profiler intelligence with ultra compact housing and configuration flexibility: the best of both worlds!

- Programmable terrestrial filter amplifier
- 3 x FM/VHF/UHF
- Can process and convert more than 50 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
- Auto-programming functionality
- **Ultra compact housing: indoor and outdoor**

Inputs		3x FM/VHF/UHF (Large band)
Output		1
Input frequency range	MHz	FM: 88 - 108 / VHF: 174 - 240 / UHF: 470 - 694
Output frequency range	MHz	88 - 862
LTE Protection	MHz	694 (5G)
Output power	dBµV	90
Number of channels		More than 50 (32 filters)
Gain adjustment	dB	Channel AGC
General attenuator	dB	20
VHF attenuator	dB	15
Noise figure	dB	7
Selectivity	dB/1MHz	50
Return Loss	dB	10
Output MER	dB	VHF: 35 / UHF: 35
Power to antenna		Yes, on input 1
ESD protection		All inputs
Operating temperature	°C	-20 to +50
Power Supply	VDC	12 (External PSU Ref. 2438)
Power Consumption	W	6
Mounting		indoor / outdoor (IP55)
Indoor dimensions	mm	82 x 98 x 32
Outdoor dimensions	mm	140 x 115 x 50
Weight	kg	0,350

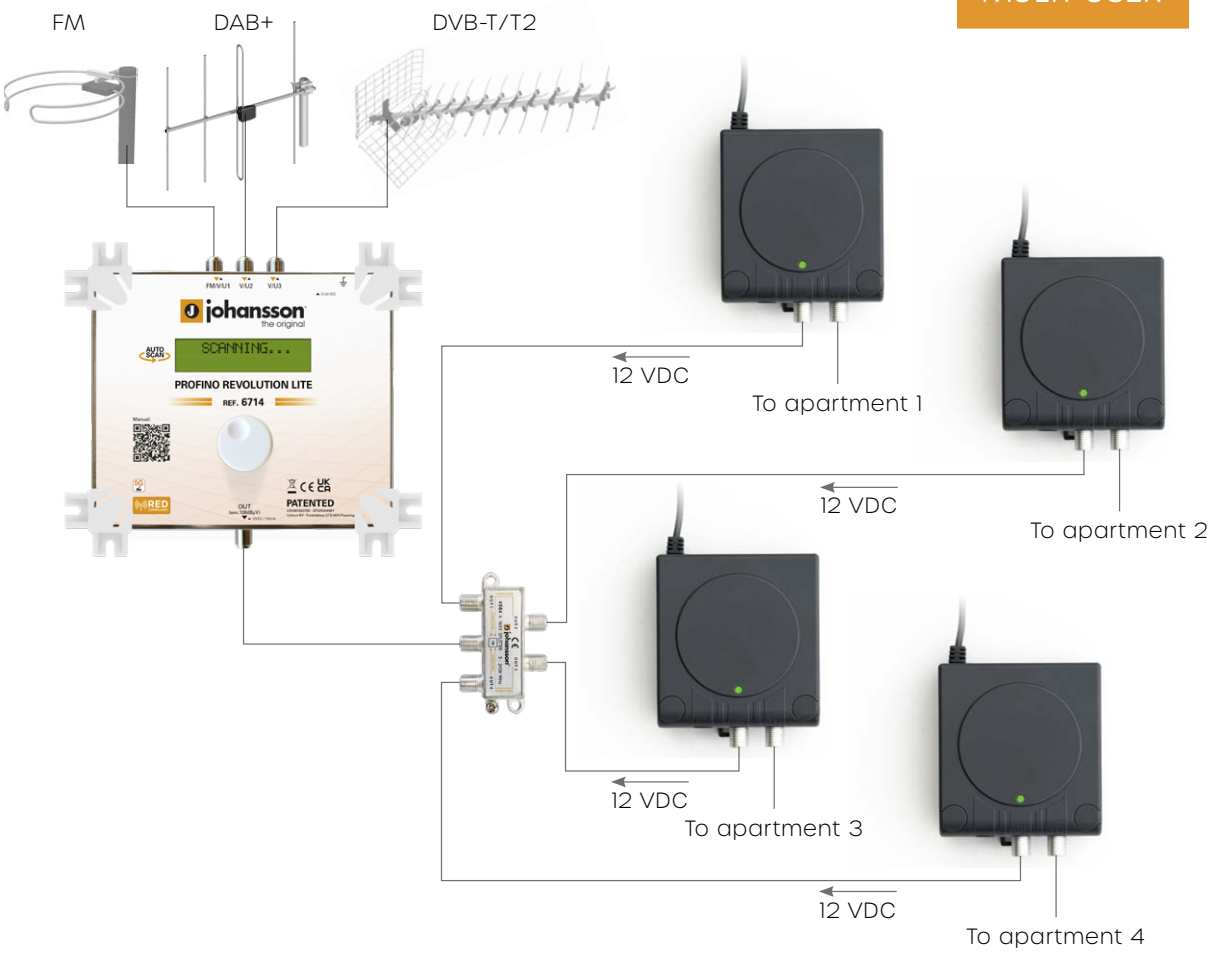
Power Supply 2438

Insertion loss	dB	0,5
Input-output connectors		Type F
AC input voltage / Frequency / Power		100 - 230 V~ / 50 Hz / 12,3 W
DC output voltage	VDC	12
Output current	mA	750
Mounting		Indoor (IP20) / wall and DIN rail horizontal/vertical
Dimensions	mm	95 x 76 x 35

Profino Revolution Lite

ref: KIT6714

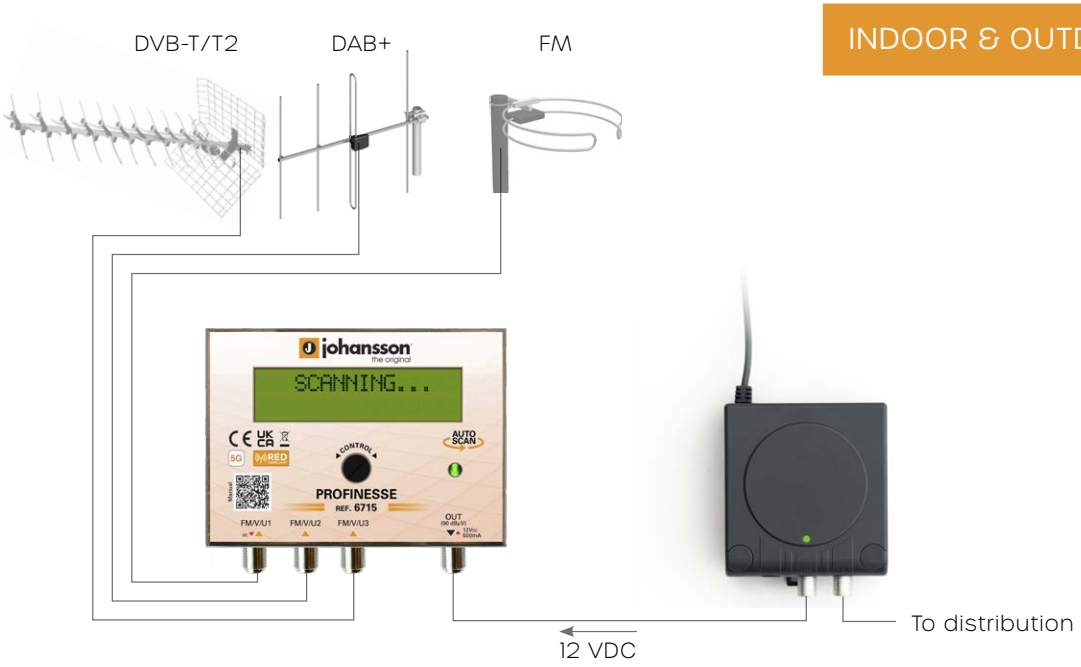
MULTI-USER



Profinesse

ref: KIT6715

INDOOR & OUTDOOR



		 **6700** **Profiler Revolution**	 **6701** **Profiler Revolution Lite**	 **6711** **Profino Revolution Plus**	 **KIT6714** **Profino Revolution Lite**	 **KIT6715** **Profinesse**
Inputs		B1 + FM 4 VHF/UHF	B1 + FM 4 VHF/UHF	FM 1 DAB/VHF + 2 UHF	FM/VHF/UHF 2 VHF/UHF	3x FM/VHF/UHF
SAT		Ref. 6702	-	Ref. 6713	-	-
Frequency range	MHz	B1+FM: 47 - 108 VHF: 174 - 240 UHF: 470 - 862	BI+FM: 47 - 108 VHF: 174 - 240 UHF: 470 - 862	FM: 88 - 108 VHF: 174 - 240 UHF: 470 - 862	FM: 88 - 108 VHF: 174 - 240 UHF: 470 - 694	FM: 88 - 108 VHF: 174 - 240 UHF: 470 - 694
Autoscan		Yes	Yes	-	Yes	Yes
LTE-5G Protection	MHz	Yes	Yes	Yes	Yes	Yes
VHF/UHF output power (60 / 36 dB/IM3)	dBµV	120 / 131	117 / 128	114 / 125	114 / 125	90 / 101
Channel conversion		Yes	Yes	Yes	Yes	Yes
Number of filters		32	32	15	32	32
MUX per filter		Up to 6	up to 6	Up to 6	Up to 6	1
Gain	dB	B1+FM: 35 VHF: >75 UHF: >75	BI+FM: 35 VHF: >75 UHF: >75	FM: 35 VHF: >60 UHF: >60	VHF: >65 UHF: >65	VHF: >50 UHF: >50
Gain adjustment	dB	B1+FM: 20 VHF/UHF: Channel AGC	BI+FM: 20 VHF/UHF: Channel AGC	FM: 20 VHF/UHF: Channel AGC	VHF/UHF: Channel AGC	VHF/UHF: Channel AGC
Power Supply	Vac	100 - 240	100 - 240	100 - 240	12 (External PSU Ref. 2438, included in KIT)	12 (External PSU Ref. 2438 included in KIT)
Power Consumption	W	15	15	15	9	4
Mounting		Indoor	Indoor	Indoor	Indoor	Indoor & outdoor

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/antenna over fiber to the STB. RF, SAT & CATV signals can be distributed over 5 optical wavelengths (1310, 1330, 1350, 1370, 1550 nm)

Our range includes:

- Fiber Headends with satellite wideband (or RF fullband) and CATV inputs
- Fiber Receivers with satellite wideband and CATV outputs
- Fiber Termination Units with integrated SCR technology

The system is compatible with our range of wideband dSCR multiswitches.
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.
Without a doubt, our satellite fiber distribution range will improve your installations.

Fiber Optical Distribution

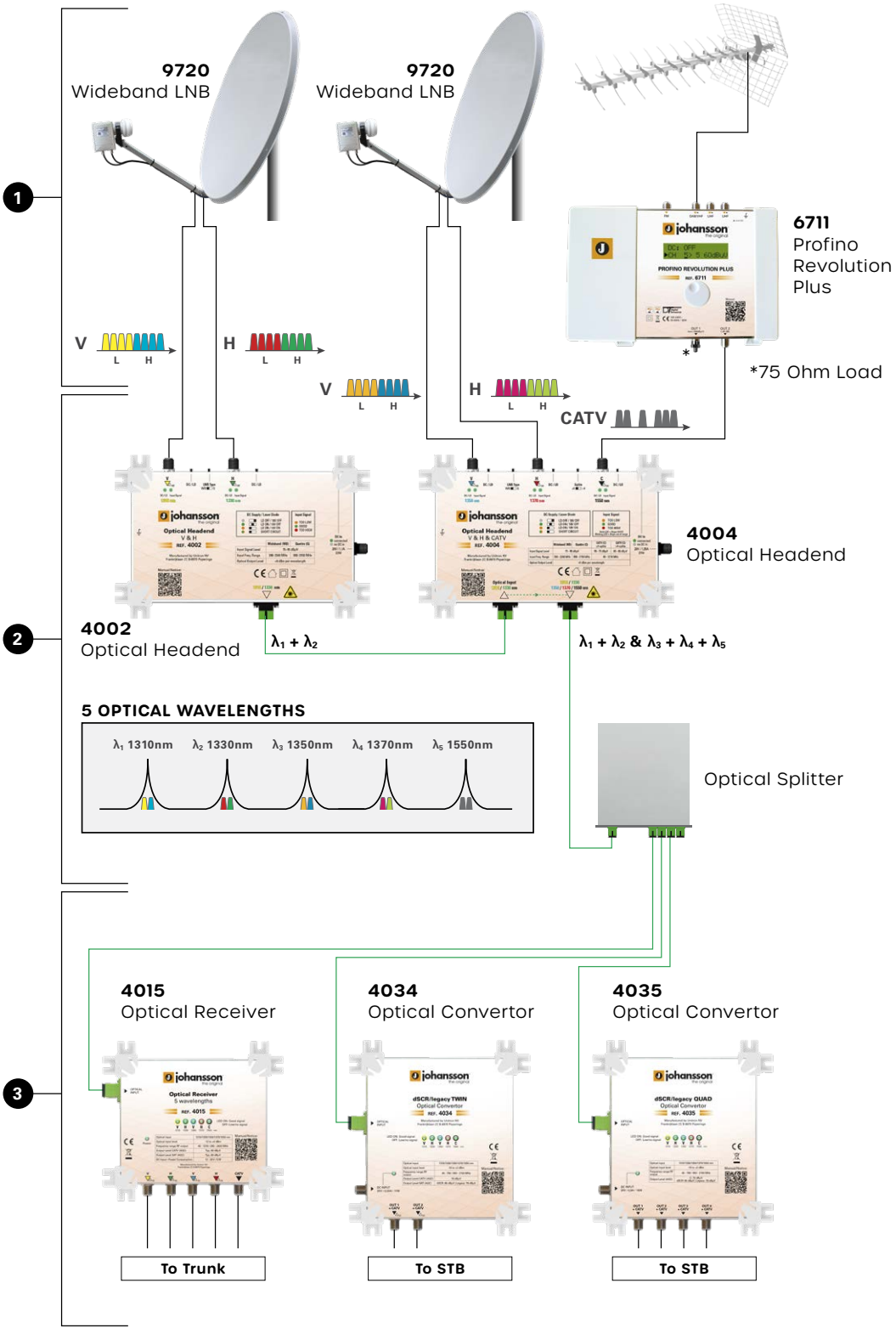
2 SAT POSITIONS

The Wideband LNB receives satellite signals and the antenna receives terrestrial signals which then are converted to Wideband V/H and CATV on coaxial network.

The optical headend converts 2x Wideband V/H & CATV to optical wavelengths (1310,1330, 1350, 1370 and 1550 nm) on 1 optical fiber cable.

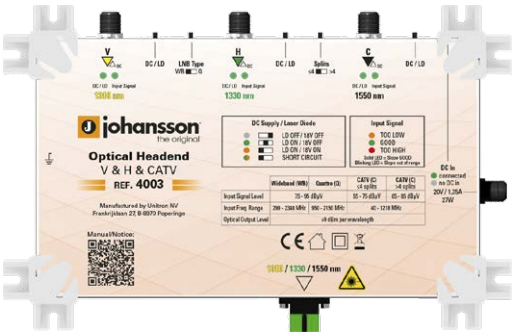
The optical receiver converts 5 optical wavelengths to Wideband V/H and CATV.

The optical Quattro FTU converts 5 optical wavelengths to SCR and CATV.



Optical Headend
ref: 4002 - 4003 - 4004

AGC & ASC



The new **Optical Compact Headend** converts Wideband/CATV signals to multiple optical wavelengths. Thanks to built-in Automatic Gain Control (AGC) and Automatic Slope Control (ASC), the output signal quality is optimal for your optical distribution system.
The 4004 can be used in combination with the 4002. Combined, they both serve as a headend for the fiber system with 5 wavelenghts.
The Optical Transmitters are suited for many types of optical systems: up to 128 splits and even more than 2000 splits!
Power supply (not included): Ref: 2460

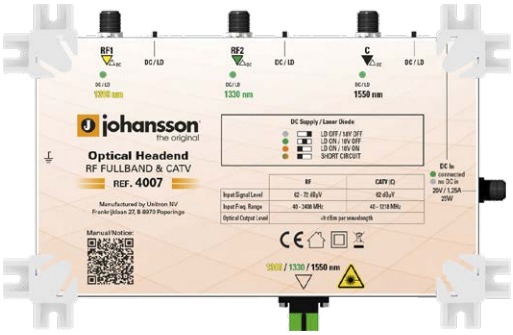
4002
- 2 Satellite (Wideband / Quattro) inputs
- 1310 - 1330 nm
- AGC & ASC

4003
- 2 Satellite (Wideband / Quattro) and 1 CATV (47 – 1218 MHz) input
- 1310-1330-1550 nm
- AGC & ASC

4004
- 2 Satellite (Wideband / Quattro) inputs
- 1350 - 1370 - 1550 nm
- AGC & ASC
- 1 bypass input to combine 1310 and 1330 from ref. 4002

		4002	4003	4004
RF Inputs (F-connector)		2 x Satellite (Wideband / Quattro)	2 x Satellite (Wideband / Quattro) & 1 x CATV	
Input frequency SAT	MHz	Wideband: 290 - 2340 Quattro: 950 - 2150		
Input frequency CATV/RF	MHz	-	40 - 1218	
Optical output (SC/APC)		1		
Optical input (SC/APC)		-		1
Optical output wavelengths	nm	1310 - 1330	1310 - 1330 - 1550	1310 - 1330 (Bypass) 1350 - 1370 - 1550
Optical output power	dBm	+9 (per wavelength)		
Input level SAT (per Transponder)	dBµV	75 - 95		
Input level CATV/RF (per Transponder)	dBµV	-	55 - 75 (≤ 4 splits) 65 - 85 (> 4 splits)	
DC on SAT/RF input		18 V / 400 mA		
DC on CATV input		-	12 V / 200 mA	
Automatic Gain Control	dB	15		
Automatic Slope Control	dB	10		
Max. power consumption (including DC-power at inputs)	W	22	27	
DC input (F-type)		20 V / 1.1 A	20 V / 1.35 A	
Power supply		20 V / 3,25 A (Ref. 2460 not included with product)		
Operating temperature range	°C	-10 to +50		
Dimensions	mm	221 x 141 x 50		
Weight	kg	0.8		

Optical Headend
ref: 4005 - 4006 - 4007



The 4005/4006/4007 are similar to 4002 and 4003 without integrated AGC and ASC.
They also receive RF fullband signals (40-2400 MHz).
The Optical Transmitters are suited for many types of optical systems: up to 128 splits!
Power supply (not included): Ref: 2460

4005
- 1 Full band (40-2400 MHz) input
- 1550 nm

4006
- 2 Full band (40-2400 MHz) inputs
- 1310-1330 nm

4007
- 2 Full band (40-2400 MHz) and 1 CATV inputs
- 1310-1330-1550 nm

		4005	4006	4007
RF Inputs (F-connector)		1 x Full band	2 x Full band	2 x Full band & 1 x CATV
Input frequency RF	MHz	-	40 - 2400	
Input frequency CATV	MHz	40 - 2400	-	40 - 1218
Optical output (SC/APC)		1		
Optical output wavelengths	nm	1550	1310 - 1330	1310 - 1330 - 1550
Optical output power	dBm	+9 (per wavelength)		
Input signal level RF	dBµV	62 (64QAM) - 67 (16QAM) - 72 (QPSK)		
Input level CATV	dBµV	62	-	62
DC on RF input		18 V / 400 mA		
DC on CATV input		-		12 V / 200 mA
Max. power consumption (including DC-power at inputs)	W	10	20	25
DC input (F-type)		20 V / 0.5 A	20 V / 1 A	20 V / 1.25 A
Power supply		20 V / 3,25 A (Ref. 2460 not included with product)		
Operating temperature range	°C	-10 to +50		
Dimensions	mm	221 x 141 x 50		
Weight	kg	0.8		

Optical Receiver

ref: 4011 - 4012 - 4013 - 4014

Optical receivers developed for the transmission of wideband 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 CATV 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 CATV signal.
Ref. 4014 (Optical Triple Receiver) converts 1350 + 1370 + 1550 nm to wideband V/H and CATV signal.

- Optical input level: -15 to +4 dBm
- Frequency range: 40 - 2400 MHz
- High reception quality even with high split ratios
- Powering via V or H output (12V - 20V)
- AGC to boost signal level
- 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)

		4011	4012	4013	4014
Optical inputs		1			
RF outputs		1	2	3	
Optical wavelength	nm	1550	1310 1330	1310 1330 1550	1350 1370 1550
CATV output frequency range	MHz	-	-	40 - 1218	
Satellite output frequency range	MHz	40 - 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 (F-type))	12 - 20 (via V or H port (F-type))		
Power indicator		Green LED			
Operating temperature range	°C	-10 to +55			
Dimensions	mm	36 x 45 x 125		56 x 45 x 125	
Weight	kg	0.110		0.165	

Optical Receiver
ref: 4015

The **Optical Quintuple Receiver** is developed for the transmission of broadband signals in medium and large Fiber Optic systems. Ref.4015 converts 1310 + 1330 + 1350 + 1370 + 1550 nm to 2 x V/H and CATV signal.

- Up to 64 passive splits
- Optical Input Level: -12 to +4 dBm
- Frequency Range: 40 – 2400 MHz
- High reception quality even with high split ratios
- Powering via V/H output (12-20V)
- AGC to boost signal level
- Optical wavelengths: 1310-1330-1350-1370-1550nm
- Compatible with Johansson wideband Multiswitches (e.g. 9775, 9754, 9758, 9734, etc.)
- **Power supply:** Ref. 2462 (optional)
- **Power inserter:** Ref. 9669 (optional)

		4015
Optical inputs		1
RF outputs		Dual WideBand +1x CATV
Optical wavelength	nm	1310 - 1330 - 1350 - 1370 - 1550
CATV output frequency range	MHz	40 - 1218
Satellite output frequency range	MHz	290 - 2400
Optical input level	dBm	-12 to +4
Signal presence indicator		Green LED per wavelength
dCSS/dSCR UBs		-
Output level Wideband AGC	dBµV	80
Output level CABLE AGC	dBµV	80
Return loss	dB	-8 (typ -12)
Input connector type		SC / APC
Output connector type		75 Ohm F type (Female)
Power consumption	W	5
Power supply via DC IN	VDC	-
Power supply via output (STB)	VDC	12 - 20 (via V or H port (F-type))
Power indicator		Green LED
Operating temperature range	°C	-10 to +55
Dimensions	mm	166 x 136 x 50
Weight	kg	0.375

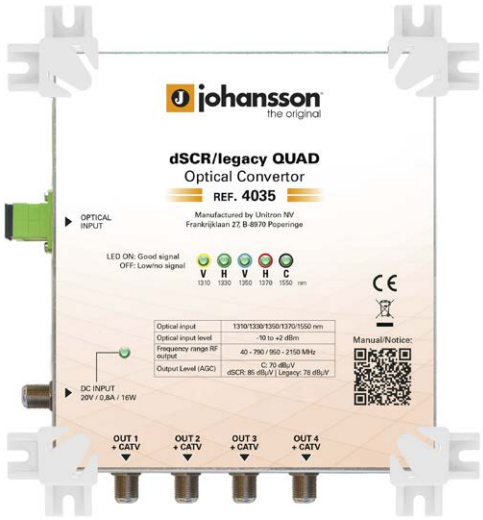
dSCR/legacy
ref: 4031 - 4032 - 4033 - 4036

dSCR/legacy Optical Convertors with high output power, developed to help installers overcome low signal quality in satellite fiber installations.

- Unique product in the market with high output power
- Optical wavelengths: 1310nm (V), 1330nm (H), 1550nm (C)
- Optical input level: -12 to 0 dBm
- **4031**: 3 outputs: 2 dSCR/legacy/CATV + 1 CATV
- **4032**: 5 outputs:
  - Quad mode: 4 x dSCR/Legacy with CATV
  - Quattro mode: VL, HL, VH, HH, CATV
- **4033**: 5 outputs: Quattro: VL, HL, VH, HH, CATV
- **4036**: 5 outputs: Quattro: VL, HL, VH, HH, CATV
- AGC on all output ports
- Signal quality indicator per wavelength
- Energy efficient
- Power supply: 20V via DC IN (Ref. 4031 and 4032) or from STB (optional ref. 2462)
- Can be used in systems with up to 64 splits
- **Power supply**: Ref. 2462 (optional)
- **Power inserter**: Ref. 9669 (optional)

		4031	4032 QUAD MODE	4032 QUATTRO MODE	4033	4036
Optical inputs		1				
RF outputs		3 (2 dSCR/ Legacy with CATV + 1 CATV)	4 (dSCR/legacy with CATV)	4x + 1x CATV		
Optical wavelength	nm	1310 - 1330 - 1550				1350 - 1370 - 1550
CATV output frequency range	MHz	40 - 790				
Satellite output frequency range	MHz	950 - 2150				
Optical input level	dBm	-12 to 0				
Signal presence indicator		Green LED per wavelength				
dCSS/dSCR UBs		2 x 16	4 x 16	-		
Output level dSCR (AGC)	dBµV	85			78	
Output level Legacy (AGC)	dBµV	78			-	
Output level CATV (AGC)	dBµV	Out + CATV: 70 CATV: 80	70	80		
Return loss	dB	-10			-8 (typ -12)	
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	8	12		10	
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	-10 to +55				
Dimensions	mm	166 x 136 x 50				
Weight	kg	0.35	0.5			

dSCR/legacy
ref: 4034 - 4035



Unique dSCR/legacy TWIN/QUAD Optical Convertor with high output power, developed to help installers overcome low signal quality in satellite fiber installations.

- **4034**: 5 optical wavelengths are converted to 2 x dSCR/legacy/CATV
- **4035**: 5 optical wavelengths are converted to 4 x dSCR/legacy/CATV
- Unique product in the market with high output power
- Optical input level: -10 to +2 dBm
- Optical wavelengths: 1310 - 1330 - 1350 - 1370 - 1550nm
- AGC on all output ports
- Signal quality indicator per wavelength
- Sky compatible
- Energy efficient
- Can be used in systems with up to 32 splits
- **Power supply**: Ref. 2462 (optional)
- **Power inserter**: Ref. 9669 (optional)

		4034	4035
Optical inputs		1	
RF outputs		2x dSCR/Legacy/CATV	4x dSCR/Legacy/CATV
Optical wavelength	nm	1310 - 1330 - 1350 - 1370 - 1550	
CATV output frequency range	MHz	40 - 790	
Satellite output frequency range	MHz	950 - 2150	
Optical input level	dBm	-10 to +2	
Signal presence indicator		Green LED per wavelength	
dCSS/dSCR UBs		2 x 16	4 x 16
Output level dSCR (AGC)	dBµV	85	
Output level Legacy (AGC)	dBµV	78	
Output level CATV (AGC)	dBµV	70	
Return loss	dB	-8 (typ -12)	
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	11	16
Power supply via DC IN	VDC	12 - 20	
Power supply via output (STB)	VDC	12 - 20	
Power indicator	-	Green LED	
Operating temperature range	°C	-10 to +55	
Dimensions	mm	166 x 170 x 50	
Weight	kg	0.43	0.57

Sat IF to IF Headend

ref: 9780

The 9780 is the **new generation headends** 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

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 & 0/22kHz selectable by SW
DC Load current @ SAT input	mA	500
SD Slot		Yes
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

Fiber Distribution Accessories

Optical PLC Splitters 4040 - 4041 - 4042 - 4043

1 SC/APC to x SC/APC
1260 - 1650 nm

- Ref. 4040: 2-way
- Ref. 4041: 4-way
- Ref. 4042: 8-way
- Ref. 4043: 16-way

Optical Cables 4050 - 4051 - 4052 - 4053

Patch cord in and out SC/APC

- Ref. 4050: 1 m
- Ref. 4051: 10 m
- Ref. 4052: 50 m
- Ref. 4053: 100 m

Optical Attenuators 4060 - 4061 - 4062

In and out SC/APC

- Ref. 4060: 5 dB
- Ref. 4061: 10 dB
- Ref. 4062: 15 dB

Optical link budget

Starting from an optical transmitted power of +9dBm, we can categorize the receivers accordingly:

	4011	4012	4013	4014	4015	4031	4032	4033	4034	4035	4036
Optical range	+4 ↓ -15	+4 ↓ -15	+4 ↓ -15	+4 ↓ -15	+4 ↓ -12	0 ↓ -12	+0 ↓ -12	+0 ↓ -12	+2 ↓ -10	+2 ↓ -10	0 ↓ -12
Min splits	4	4	4	4	4	8	8	8	4	4	8
Max splits	128	128	128	128	64	64	64	64	32	32	64

Table with measured losses

SPLITS	OPTICAL LOSS (dB)	RF LOSS (dB)
1	0	0
2	3,8	7,9
4	6,5	14,9
8	10	20,5
16	13,5	26,4
32	16,5	34,4
64	20	41,8
128	23,5	46,5
256	27	52,3

Conclusion
Wideband receivers with max. 3λ can go up to 128 splits.
Wideband receivers with max. 5λ can go up to 64 splits.
dSCR/quad/quattro receivers with max. 3λ can go up to 64 splits.
dSCR/quad/quattro receivers with max. 5λ can go up to 32 splits.

Note: When using transmitters without AGC, it's important to align the input levels perfectly.

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

Ref. 9731 - 9732

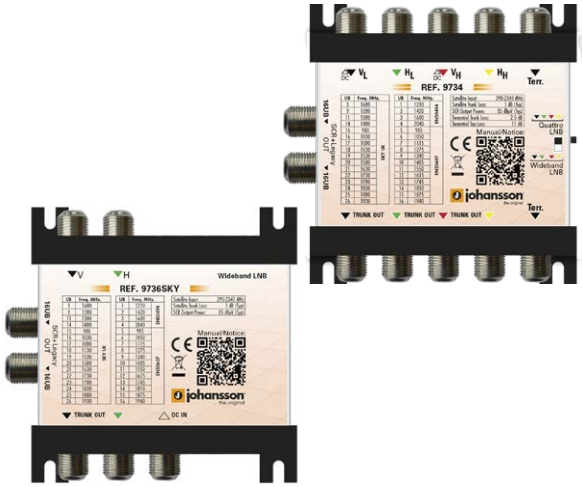
Unitron offers a **wide range of multiswitches** with integrated 'SCR' technology. With those multiswitches, you can connect multiple set-top boxes for multi-room applications to numerous satellites using one coaxial cable only!

- 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

		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 @13V	<320 @13V
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

Ref. 9733 - 9734 - 9736



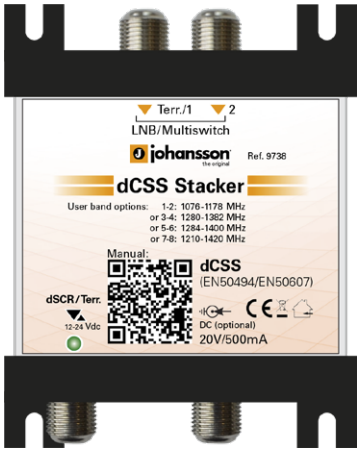
The 9734 has 4 satellite wideband input (for 1 quattro or 2 wideband LNB), passive terrestrial diplexer, 2 outputs with each 16 user bands.

- 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

		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 @13V		
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

Ref. 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)

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

Ref. 9739

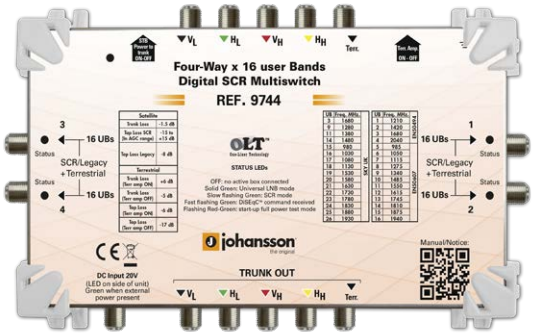
The 9739 can be used with **Quattro** or **Quad LNB** types and will output in Legacy or SCR mode. Use the Multiswitch Add-on to change a legacy Multiswitch to a Channel Stacking Switch (CSS) without loss of existing legacy ports. Concretely, you can use the Multiswitch Add-on to upgrade your legacy 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

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

Ref. 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

			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		
	Trunk lines In to Out	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	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 (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

4/6/8-way dSCR Multiswitch

Ref: 9754 - 9756 - 9758

NEW

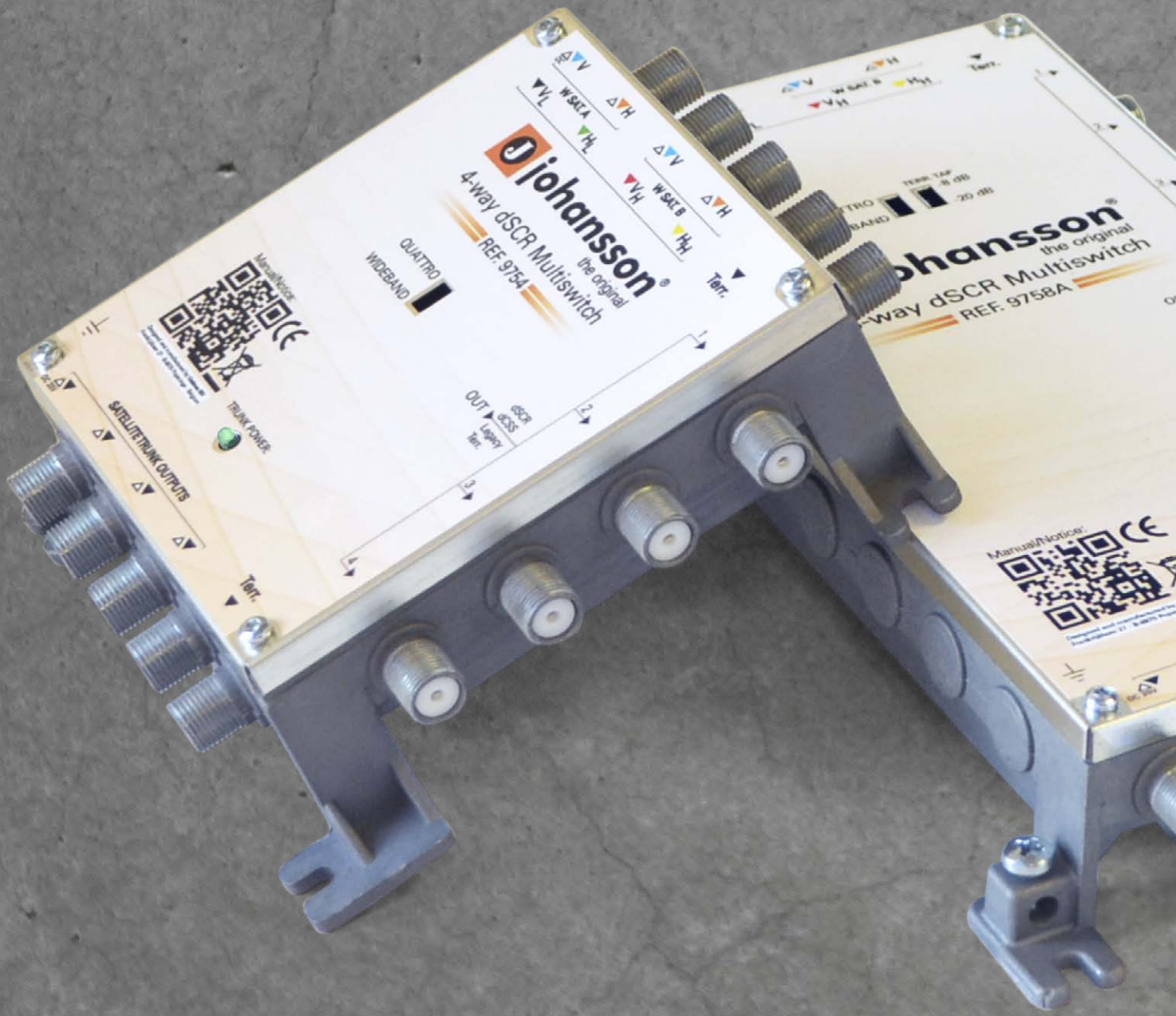
We proudly present you **the next generation dSCR Multiswitches** from your market leader.
These state-of-the-art dSCR Multiswitches in a compact die-cast housing are optimized for installation in narrow spaces and will make your installation more successful.

Complete range: 4-way, 6-way and 8-way.

- 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
- 9754: 4-way
  9756: 6-way
  9758: 8-way
- Optimized performance and power consumption
- Compact die-cast housing for easy installation

9754A - 9756A - 9758A
Active Terrestrial Amplifier
Max. input level TERR: Amplified: 109 | Bypass: 121
Terr Tap loss: Bypass: 20 | Amplified: 8

		9754	9756	9758
Trunk inputs/outputs		Sat.: 4 I Terr.: 1		
dSCR outputs		4	6	8
Frequency	MHz	Sat.: 290 - 2340 Terr.: 88 - 862		
Min input level SAT	dBµV	Universal LNB: 62 - 106 I Wideband LNB: 67 - 106		
Max input level TERR	dBµV	-		
Trunk return loss	dB	>10		
Trunk insertion loss	dB	Sat.: 2 I Terr.: 1.5	Sat.: 4 I Terr.: 3	
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	22	
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	


johansson
the original
4-way dSCR Multiswitch
REF. 9754
QUATTRO
WIDEBAND
W SAT A
W SAT B
SATELLITE TRUNK OUTPUTS
TRUNK POWER
Term.
dSCR
dCSS
OUT
Legacy
Manual/Notice:
johansson
the original
-way dSCR Multiswitch
REF. 9758A
TERR TAP
8 dB
20 dB

4/6-way dSCR Multiswitch

Ref. 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

		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	
Input level	dBµV dBµV	Sat: 58 to 108 Terr.: 100 (amplified)	
Return loss	dB	-10	
Insertion loss	dB	Sat.: 2 I Terr.: 3	
Sat positions		Wideband: 4 I Universal: 2	
Supported LNB types		Quattro (LO: 9750/10600) Wideband (LO: 10410)	
dSCR channel power	dBµV	86 (AGC controlled)	
Output return loss	dB	10	
Terr output loss	dB	-20 or -8 (switchable)	
SCR channels	MHz	Configurable between 950 and 2150	
Supported standards		EN50494 / EN50607 / BskyB	
Legacy mode		No	
Trunk termination DC blocked required	Ohm	75 (Sat & Terr)	
DC supply to sat trunks from power adapter	V	20	
DC supply from sat trunks	V	20	
Max LNB current / LNB	mA	500	
DC jack 2.1mm + F con DC input	V	20	
DC power from output port		Yes	
Consumption	W	24	
Dimensions	mm	220 x 220 x 50	
Operating temperature	°C	-20 to 50, indoor housing	

Legacy Multiswitches

What truly sets us apart is the strict quality control on every product, ensuring unmatched reliability in the market.

- Compatible with **5-wire, 9-wire, 13-wire, and 17-wire systems**
- Available with **4 to 32 outputs**
- **Standalone or cascadable**, configurable via switch
- **Active or passive terrestrial path**, configurable via switch

Legacy Multiswitches Amplifiers

(30 dB Adjustable Gain)

Power supply not included

Reference	Description
MSW504	5 Inputs 4 Outputs
MSW508	5 Inputs 8 Outputs
MSW512	5 Inputs 12 Outputs
MSW516	5 Inputs 16 Outputs
MSW524	5 Inputs 24 Outputs
MSW532	5 Inputs 32 Outputs

Reference	Description
MSW908	9 Inputs 8 Outputs
MSW912	9 Inputs 12 Outputs
MSW916	9 Inputs 16 Outputs
MSW924	9 Inputs 24 Outputs
MSW932	9 Inputs 32 Outputs

Reference	Description
MSW1308	13 Inputs 8 Outputs
MSW1312	13 Inputs 12 Outputs
MSW1316	13 Inputs 16 Outputs
MSW1324	13 Inputs 24 Outputs
MSW1332	13 Inputs 32 Outputs

Reference	Description
MSW1708	17 Inputs 8 Outputs
MSW1712	17 Inputs 12 Outputs
MSW1716	17 Inputs 16 Outputs
MSW1724	17 Inputs 24 Outputs
MSW1732	17 Inputs 32 Outputs

Legacy Multiswitches Amplifiers

(30 dB Adjustable Gain)

Power supply not included

Reference	Description
MSWA5	5 Inputs 5 Outputs
MSWA9	9 Inputs 9 Outputs
MSWA13	13 Inputs 13 Outputs
MSWA17	17 Inputs 17 Outputs

Power Supply for Legacy Products

1 per installation

Reference	Description
PSU1236	12V Power Supply /3,0A / 2.1 DC Jack / 140cm DC Cable / EU mains cable

Satellite IF Amplifier

Ref. 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

Inputs		4 Sat + 1 Terr (+RP)
Outputs		5
Frequency range	MHz	Sat.: 950 - 2300 I Terr.: 5 - 65 + 87 - 862
Gain	dB	Sat.: 22 - 28dB (sloped) Terr.: 87 - 862MHz : 20 - 27dB (sloped) Return path: -1dB
Noise figure	dB	Sat.: 5 I Terr.: 6
Gain adjustment	dB	Sat.: 20 I Terr.: 20
Max. Output level	dBµV	Sat.: 115dBµV (-35dB/IM3) I Terr.: 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

Sat IF to IF Headend

Ref: 9780

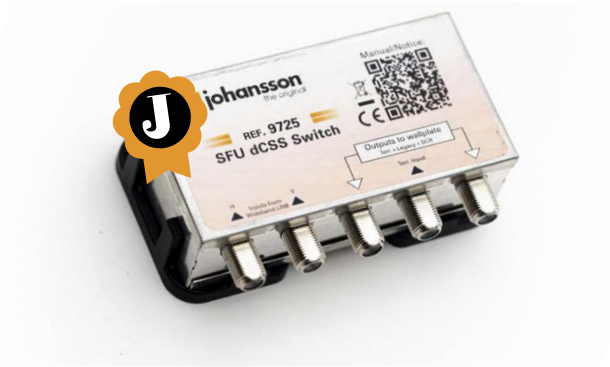
The 9780 is the **new generation headends** for satellite signals to be used in MDU's. The compact plug-and-play module has a straightforward and easy configuration. Perfect for equalizing and optimizing satellite transponders as input for your optical headend.

- 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

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 & 0/22kHz selectable by SW
DC Load current @ SAT input	mA	500
SD Slot		Yes
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

Ref: 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, 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)**

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 @ 13V
Power supply		From STB - To LNB
Dimensions	mm	Indoor: 65x100x30 mm | outdoor: 120x115x50

Stacker Destacker

Ref: 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 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. The Destacker converts it back to the original ones.

This version doesn't need an additional power adapter by default. The built-in attenuator with adjustment, protects 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)**

DC Power Supply

Ref: 9933

» DC Power Supply with DC-jack 2.1mm

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

Ref: 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

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

Power Supply
Ref: 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)

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

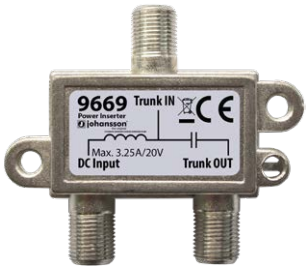
3-way dSCR Smart Splitter
Ref: 4605

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

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
Ref: 9669



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

» dSCR power inserter for trunk powering

DiSEqC dSCR Inserter
Ref: 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. 2452)**

Power Inserter
Ref: 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: 5-2150 MHz
» Current/input: up to 350 mA
» Low insertion loss: <1 dB
» Independent satellite band for each input (indicated by bi-color LED)

Inputs		4
Frequency range	MHz	5 - 2150
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

Wideband Satellite Distribution
ref: 9720 - 9646

Wideband LNB
ref: 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

Wideband to Quattro Converter
ref: 9646

The **Wideband to Quattro Converter** 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

Satellite Distribution Accessories
ref: 2460 - 2462 - 9669

Power Supply for dSCR
ref: 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

Power Inserter
ref: 9669

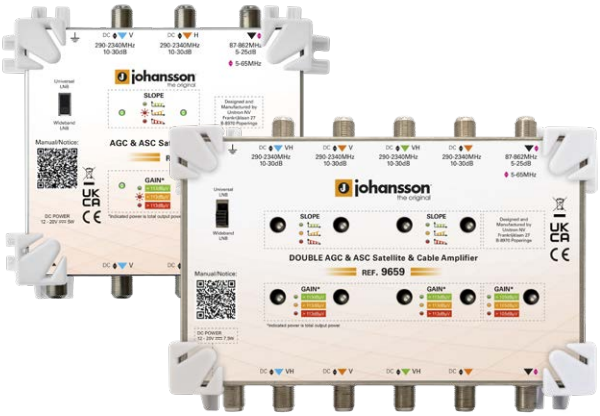
The **Power Inserter** enables you to add DC-power on to a coaxial cable.

» dSCR power inserter for trunk powering

Satellite & Cable Line Amplifier

ref: 9658 - 9659

AGC & ASC



An ideal launch amplifier for Multiswitch systems with a Cable/Terrestrial path.
The AGC & ASC Satellite & Cable Amplifier optimizes your Wideband V/H (290-2400 MHz) and Cable (87-862MHz) signal in real-time.
Ref: 9659: Suitable for 2 wideband LNBs, or 1 Quattro LNB.

WATCH PRODUCT VIDEO

- 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. 2460 or 2462))
- Selectable between Wideband LNB (290 - 2400 MHz) and Universal LNB (950 - 2150 MHz)

		9658		9659	
Inputs		SAT V / SAT H	CABLE	SAT V1 / SAT H1 / SAT V2 / SAT H2	CABLE
Outputs		SAT V / SAT H	CABLE	SAT V1 / SAT H1 / SAT V2 / SAT H2	CABLE
Frequency range	MHz	290 - 2400 (Wideband) 950 - 2150 (Universal)	87 - 862	290 - 2400 (Wideband) 950 - 2150 (Universal)	87 - 862
Gain	dB	10 - 30	5 - 25	10 - 30	5 - 25
Noise figure	dB	5		5	
Gain adjustment	dB	20 (Automatic Gain Control)		20 (Automatic Gain Control)	
Slope adjustment	dB	15 (Automatic Slope Control)	-	15 (Automatic Slope Control)	-
Output level	dBµV	113	105	113	105
Cable Return Path	MHz	-	5 - 65	-	5 - 65
Consumption		400 mA max. from 12-20 VDC (F-connector) external power supply or input / output			
Power consumption	W	5			
Dimensions	mm	129 x 140 x 51			
Weight	kg	0,350			

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

ref: 8204

WORLDWIDE STANDARD

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 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
- **Multi standard:** DVB-C/T(2), ATSC-T/C, DTMB, ISDB-T

IRKIT
Dimensions: 65x50x22mm
Connectors: 2 x F female, IR receiver lead 95 cm USB lead 135 mm, IR emitter Lead 150 cm - jack 2,5 mm
IR receiver range: 8 m
Power consumption: 15 mA / 5 VDC from modulator coax or USB

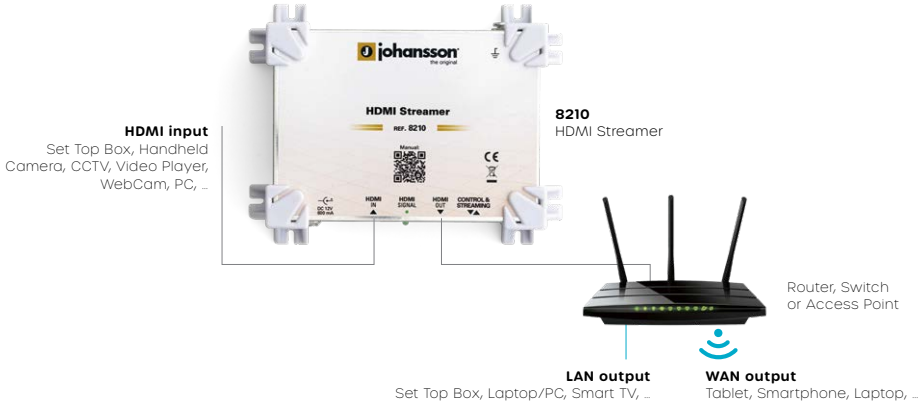
Video resolution		480i up to 1080p
Video encoding		H264/AVC / MPEG-2
Audio encoding		MPEG1 Layer II / AAC
Connector type		HDMI type A - 1.3
Frequency	MHz	5 - 1218
Loss to RF output	dB	2
Freq range modulator	MHz	174 - 1000
Output level	dBµV	OFF / 57 - 95
MER	dB	Typ. 38
Basic configuration		Country | Output Type | Output Frequency | Output Level | Channel Name
Advanced configuration		RF | Video & Audio | SID | PMT, VPID, APID | NIT, ONID | LCN | PDS | TS ID
Power		Input Voltage: 12 VDC | Consumption: 5 W Typ. (6 W,500mA, max.) | DC Jack Ø 2.1 mm
Dimensions	mm	155 x 120 x 60
Weight	kg	0.6
Accessories		12V power adapter included

HDMI Streamer

ref: 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



Number of inputs		1 x HDMI
Outputs		1x IP Ethernet RJ-45 jack (for streaming+WebGUI) 1x 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 included

Octo AV Modulator

Ref: 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

Ref: 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

Titanium 4/8/8x8

Ref: 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**

		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		
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		
Frequency range	MHz	47-862 (1002 DVB-C)		
Output level	dBµV	69 to 84		
MER	dB	≥43		
Power consumption	W	22 (excl. external LNBs)		
Dimensions	mm	345 x 70 x 182		
Operating temperature	°C	0 to +50		

Titanium IP 8/8x8

Ref: 8711 - 8713

Compact headend with 64 streams, 8 tuners and 2 or 4 CI slots. Titanium is our newest compact headend solution that is suitable for small to medium-sized budget-friendly projects.

- Standalone frame with built-in power supply
- 8 tuners
- 2 or 4 CAM slots
- 64 SPTS streams
- **Ref. 8751 remote access with standalone RMU**

		8711	8713
Inputs		4 x RF inputs	
Tuners		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	
Integrated multiswitch		Yes, allows flexible routing of satellite programs to multiplexes	
Configuration		Built-in webserver accessible via management port	
Encoded programs		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		IPTV: Up to 64 SPTS streams in Multicast (VBR)	
Power consumption	W	22 (excl. external LNBs)	
Dimensions	mm	345 x 70 x 182	
Operating temperature	°C	0 to +50	

ProFlex

Digital Modular Headend – Ref: 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**

ProHDMI Streamer

Digital Modular Headend – Ref: 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 66)**

ProHDMI Modulator

Ref: 5532

The multi-standard **ProHDMI Modulator** with 4 HDMI inputs and 1 coaxial output port with up to 2 independent output MUXs (DVB-T/DVB-T2/DVB-C/ ATSC-T/ATSC-C/DTMB/ISDB-T).
Broadcast high quality video and optimize video experience with the ProHDMI modulators. By changing the video 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
- Multi-standard: DVB-T / DVB-T2 / ISDB-T / DVB-C / ATSC-T / ATSC-C / DTMB

- **Configure remotely with uCloud via RMU ref. 5951/5952**

Remote Management Unit

Digital Modular Headend – Ref: 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

Ref: 5952

RMU with integrated power supply for redundancy

- RMU ref. 5952 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

Power Supply Unit

Digital Modular Headend — Ref: 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	
Output voltage	VDC	15	
Output power	W	150	300
Dimensions	mm	5 RU x 12 TE x 180	5 RU x 12 TE x 333

Fan Unit

Ref: 5062W

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

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

19" Sub-Rack/Mini-Rack

Digital Modular Headend – Ref: 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

		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


5050ETH
Power
Supply Unit
5951
Remote
Management Unit
5501
ProFlex
5501
ProFlex
IN SAT 1 OUT
IN SAT 2 OUT
IN SAT 3 OUT
IN SAT 4 OUT
+15V
GND
CONTROL
STREAMING
RF IN
RF OUT
UNITRON
GOLF
johansson
the original

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
ref: KIT7473L2

Meet the new Johansson **SMART AMP**!
Combining 2 or 3 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 (5G) protection on all inputs
- Outdoor weatherproof mast-head housing
- DC Power over coax
- All ports ESD protected

Inputs		3
LTE rejection		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		CH49-69 (694MHz-862MHz) Switch ON-OFF
Adjacent channel isolation	dB	>35
Input sensitivity	dBµV	minimum 40
Power consumption	mA	300
Power Supply	VDC	12 (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

Multiband amplifier

Ref: 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
- Cetachable power supply (included)
- -30 dB test output

		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

Ref: 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 + 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 + 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

		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

Ref: 9672L2

- 1 input: 47 - 694 + 950 - 2400 MHz
- 2 outputs
- LTE (5G) rejection
- Gain Cable: 3 - 23
- Gain SAT: 12 - 30
- Fixed slope on satellite
- DC power pass: switchable
- Power LED indicator
- Wall and DIN rail mountable
- Universal input power: 85-240V~

DIN rail mounting

Output		2
Frequency range	MHz	47 - 694 / 950 - 2400
Gain	dB	Cable: 3 - 23 SAT.: 12 - 30
Slope adjustment	dB	Cable: - SAT.: 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)

Ref: 7322(L2) - 7327(L2) - 7329

- 1 input/1 output
- LTE (4G or 5G) rejection
- Low-noise
- Power indication LED

- **KIT (with power supply):**
  - KIT7322L2
  - KIT7329

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

		7322L2	7327L2	7329
Frequency range	MHz	470-694 (Ch. 21-48)		
Gain	dB	10-25	15	15-32
Noise figure	dB	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		

UHF Preamplifier (5G)

ref: 7332DC - KIT7332DC

PREMIUM QUALITY

- 1 input/1 output
- **Switchable DC power pass**
- Up to 108 dBµV output power
- LTE (5G) rejection
- Ultra low-noise
- 10-34 dB adjustable gain
- Power indication LED
- 12-24 VDC operating voltage
- High performance

- **KIT (with Power Supply):**
  - KIT7332DC

Frequency range	MHz	470-694
Gain	dB	10-34
Noise figure	dB	2.0
DC power pass		Switchable / 500mA max
Input level	dBµV	78
Output level	dBµV	108
Power supply	VDC	12-24
Consumption	mA	115 (12V) / 65 (24V)
Mounting		Mast or wall
Dimensions	mm	122 x 98 x 56

Power Supply 2436

Outputs		2
Insertion loss	dB	4 - 5
Isolation between outputs	dB	10
Frequency Range	MHz	87 - 862
AC input voltage/Frequency/Power		100 - 230 V~ / 50 Hz / 3,2 W
Insulation class		VI
DC output voltage	VDC	24
Output current	mA	150
Mounting		Indoor (IP20) / wall and DIN rail horizontal/vertical
Dimensions	mm	95 x 76 x 35

VHF/UHF preamplifier

ref: 7411DC - 7412DC - 7413DC - 7415DC

DC POWER PASS

7411DC & 7412DC:

- 1 x VHF (BIII/DAB) input / 1 or 2 UHF input
- 1 wideband output
- **Switchable DC power pass**
- 5-23dB adjustable gain on VHF
- 10-34/32dB adjustable gain on UHF

7413DC:

- 1 x VHF (BIII/DAB) input / 2 UHF inputs
- 2 wideband outputs
- **Switchable DC power pass**
- 0-20dB adjustable gain on VHF
- 8-28dB adjustable gain on UHF

7415DC:

- FM input / BIII or DAB input / UHF input
- 1 wideband output
- **Switchable DC power pass on UHF**
- 6dB gain on FM
- 10-32dB adjustable gain on UHF
- 5-23dB adjustable gain on VHF/DAB

		7411DC		7412DC		
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	
Gain	dB	5 - 23	10 - 34	5 - 23	10 - 32	
Noise Figure	dB	2.5	1.5	2.5	1.5	
DC power pass (500 mA max)		-	Switchable	-	Switchable	-
Max. input level	dBµV	96	78	96	82	
Max. output level (IM3: 2c/-60dB)	dBµV	112	108	112	110	
Consumption		140 mA (12V) - 75 mA (24V)		160 mA (12V) - 80 mA (24V)		
Connectors		F				
Mounting		Mast or wall				
Dimensions	mm	122 x 98 x 56				

		7413DC			7415DC		
Inputs		VHF BIII/DAB	UHF1 Ch. 21- 48	UHF2 Ch. 21- 48	FM	VHF BIII/DAB	UHF Ch. 21- 48
Frequency range	MHz	170-240	470-694		88-108	170-240	470-694
Gain	dB	0 - 20	8 - 28		6	5 - 23	10 - 32
Noise Figure	dB	2.5	1.5		12	3.0	1.5
Max. input level	dBµV	96	78		104	96	82
Max. output level (IM3: 2c/-60dB)	dBµV	109	106		110	112	110
DC power pass (500 mA max)		-	Switchable	-			Switchable
Consumption		1,9 W / 160 mA (12V) - 85 mA (24V)			1,9 W / 160 mA (12V) - 80 mA (24V)		
Outputs		2			1		
Mounting		Mast or wall					
Dimensions	mm	122 x 98 x 56					

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24V Power Supply

Ref: 2436 - 2439

- High-efficiency
- 24V stabilized
- Short-circuit protection
- Power LED indicator
- Wall or DIN-rail mountable
- **2436:** Horizontal and vertical DIN-rail mountable

		2436	2439
Outputs		2	
Insertion loss	dB	4-5	
Isolation between outputs	dB	10	
Frequency Range	MHz	87 - 862	
AC input voltage/Frequency/		100 - 240 V- / 50 - 60 Hz	
Power	W	4.6	3.2
Efficiency level		VI	
DC output voltage	VDC	24	
Output current	mA	150	100
Dimensions	mm	95 x 76 x 35	80 x 52 x 35

12V Power Supply

Ref: 2437 - 2438

- High-efficiency
- 2 outputs (ref. 2437), 1 output (ref. 2438)
- 12V stabilized
- Short-circuit protection
- Power LED indicator
- Wall or DIN-rail mountable
- Horizontal/vertical DIN-rail mounting
- 2437US (US version) & 2437A (Argentina version)

		2437	2438
Outputs		2	1
Insertion loss	dB	4.5	0.5
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	750
Mounting		Indoor (IP20)	
Dimensions	mm	95 x 76 x 35	
Application		Smart Amp	KIT6714

LTE (5G) Filter

Ref: 6024C48(FR)

- High LTE (4G/5G) rejection
- Indoor and outdoor mountable
- Ref. 6024C48FR: filter approved by ANFR

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

LTE (5G) Filter
Ref: 6023C48

» 30 dB LTE rejection
» In-line small housing
» Indoor use

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

LTE (5G) Filter
Ref: 6040C48

» UHF/Tetra filter
» Indoor and outdoor mountable

		6040C48
Bandwidth	MHz	470-694
Channels		Ch .21-48
Insertion loss	dB	1.5
Rejection	dB	35
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

Ref: 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)

		4502	4503	4504	4506	4508
Way		2	3	4	6	8
Frequency	MHz	5-2400				
Insertion loss	dB	6.5	11		16	18
Isolation	dB	16	20			
Return loss in/out	dB	10				
DC power pass (out/in)		2	3	4	6	8
Dimensions	mm	47 x 56 x 21	47 x 77 x 21		57 x 120 x 25	

Distribution Accessories
Wideband taps

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

TV Sat combiner

Ref: 9501

- Indoor combiner / Diplexer
- DC power pass

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

TV Sat combiner

Ref: 9506

- Indoor/outdoor combiner
- DC power pass
- High isolation

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

Twin DiSEqC multiswitch

Ref: 9920

Switch for 2 TWIN LNB's combined with terrestrial

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

Satellite line amplifier

Ref: 9653

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

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

Attenuator – DC Block

Ref: 9609

- Small housing
- Adjustable attenuation: 0-20 dB
- DC power pass
- Low insertion loss

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

DTT Line amplifier

Ref: 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

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

johansson®
the original

UNITRON GROUP

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

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