



**johansson**  
since 1962

# NEW PRODUCTS

2024



**johansson**  
since 1962



## 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 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 30 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 (see SAT specs)**



## Specifications 6700(UK)

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   VHF: 174 - 240   UHF: 470 - 862
LTE Protection	MHz	Automatic selection: 694 or OFF
Input level	dBμV	B1+FM: 37 - 77   VHF: 37* - 109   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   VHF: >75   UHF: >75
Gain adjustment	dB	B1+FM: 20   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   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

# Profino Revolution Lite KIT6714

FM & DAB



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
- 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
- **Auto-programming functionality**

## Specifications KIT6714

Inputs	-	1 FM/VHF/UHF & 2 VHF/UHF
Outputs	-	1 (FM-VHFS-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	dB $\mu$ V	VHF: 37* - 109 / UHF: 37* - 109 (* For 64QAM with code rate 3/4)
VHF/UHF output power (60 / 36 dB/IM3)	dB $\mu$ V	114 / 125
VHF/UHF output power with 1 / 6 / 15 / 32 MUX	dB $\mu$ V	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	Vac	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	-	Internal (IP20)
Dimensions	mm	95 x 76 x 35

# Profinesse KIT6715

**ULTRA COMPACT**



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**



Profiler Revolution

## Specifications **KIT6715**

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	-5 to +50
Power Supply	Vac	12 (External PSU Ref. 2438)
Power Consumption	W	4
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	-	Internal (IP20)
Dimensions	mm	95 x 76 x 35

# HDMI Modulator 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



## Specifications 8204

		8204
Video resolution	-	480i up to 1080p
Video encoding	-	H264/AVC / MPEG-2
Audio encoding	-	MPEG1 Layer II / AAC
Connector type	-	HDMI type A
Frequency	MHz	5 - 1218
Loss to RF output	dB	2
Freq range modulator	MHz	174 - 1000
Output level	dBμV	OFF / 50 - 88
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

OUTPUT SETTINGS		8204					
Output type	-	DVB-T(2)	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 or 8	6		6 or 8	6, 7 or 8
Constellation	-	COFDM QPSK 16QAM 64QAM (256QAM)	16QAM 32QAM 64QAM 128QAM 256QAM	8VSB	64QAM 256QAM	QPSK QAM-4NR 16QAM 32QAM 64QAM	COFDM (QPSK/ 16QAM/ 64QAM)
Other settings	-	Code rate Guard Interval 2K - 8K				Interleave Code rate 2K-8K Sync frame PN phase	Code rate Guard Interval 2K-8K

# Titanium IP 8/8x8

## 8711 - 8713

**64 IP STREAMS**



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**

Compact IP Streamer



**IPTV**

## Specifications 8711 - 8713

		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	
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	

# ProHDMI Modulator 5532

**MULTI-STANDARD**



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**



## Specifications 5532

Inputs	-	4 x HDMI 1.3						
Video resolution	-	576i up to 1080p						
Video encoding	-	H264/AVC						
Audio encoding	-	MPEG1 Layer II / AAC						
Connector type	-	HDMI Type A						
Modulated channel frequency	MHz	174 - 1218						
Output level	dBμV	55 - 99 (adjustable)						
MER	dB	Typ. 38						
Output type	-	DVB-C	DVB-T	DVB-T2	ISDB-T	DTMB	ATSC-C	ATSC-T
Channel bandwidth	MHz	2 to 8	6, 7 or 8		6	8	6	
Constellation	-	16QAM 32QAM 64QAM 128QAM 256QAM	COFDM QPSK 16QAM 64QAM	COFDM QPSK 16QAM 64QAM 256 QAM	QPSK 16QAM 64QAM	QPSK QAM-4NR 16QAM 32QAM 64QAM	64QAM 256QAM	8VSB
Other settings	-	-	Code rate, Guard Interval 2K-8K			Interleave Code rate 2K-8K Sync frame PN phase	-	
Connectors	-	Front side: Output: RF + Loopthrough Management: 1 x RJ-45 (Ethernet) DC: Banana sockets Rear side: HDMI Input: 4 x HDMI 1.3						
Power supply	VDC	15						
Consumption	A	1,2						
Operating temperature	°C	0 to +40						
Dimensions	-	5 RU x 8 TE x 367 mm						



**AUTOSCAN**

# Smart Amp: Auto-programming pre-amplifier

## KIT7471L2 - KIT7472L2 - KIT7473L2 - KIT7474L2



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 (5G) protection on all inputs
- Outdoor weatherproof mast-head housing
- DC Power over coax
- All ports ESD protected



## Specifications KIT7471L2 - KIT7472L2 - KIT7473L2 - KIT7474L2

		KIT7471L2	KIT7472L2	KIT7473L2	KIT7474L2
Inputs	-	1	2	3	4
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 37			
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

# UHF Preamp (5G) 7332DC

**PREMIUM QUALITY**



- 1 input/1 output
- **Switchable DC power pass**
- Up to 108 dB $\mu$ V 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 ref. 2436):**
- KIT7332DC



## Specifications 7332DC

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

# VHF/UHF preamplifier

## 7411DC - 7412DC - 7413DC

**DC POWER PASS**



### 7411DC & 7412DC:

- 1 x VHF (BIII/DAB) input / 1 or 2 UHF input
- 1 wideband output
- **Switchable DC powerpass**
- Up to 112dB $\mu$ V output power
- 5-23dB adjustable gain on VHF
- 10-34dB adjustable gain on UHF

### 7413DC:

- 1 x VHF (BIII/DAB) input / 2 UHF inputs
- 2 wideband outputs
- **Switchable DC powerpass**
- Up to 109 dB $\mu$ V output power
- 0-20dB adjustable gain on VHF
- 8-28dB adjustable gain on UHF

- LTE (5G) rejection
- Ultra low-noise
- Power indication LED
- 12-24 VDC operating voltage
- Wall or mast mountable



## Specifications 7411DC - 7412DC

		7411DC		7412DC		
		VHF BIII/DAB	UHF Ch. 21- 48	VHF BIII/DAB	UHF1 Ch. 21- 48	UHF2 Ch. 21- 48
Inputs	-					
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	-	-	Switchable / 500mA max	-	Switchable / 500mA max	-
Max. input level	dB $\mu$ V	96	78	96	82	
Max. output level (IM3: 2c/-60dB)	dB $\mu$ V	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				

## Specifications 7413DC

		7413DC		
		VHF BIII/DAB	UHF1 Ch. 21- 48	UHF2 Ch. 21- 48
Inputs	-			
Frequency range	MHz	170-240	470-694	
Gain	dB	0 - 20	8 - 28	
Noise Figure	dB	2.5	1.5	
Max. input level	dB $\mu$ V	96	78	
Max. output level (IM3: 2c/-60dB)	dB $\mu$ V	109	106	
DC power pass	-	-	Switchable / 500mA max	-
Consumption	-	1,9 W / 160 mA (12V) - 85 mA (24V)		
Outputs	-	2		
Mounting	-	Mast or wall		
Dimensions	mm	122 x 98 x 56		

# 6-way dSCR Multiswitch 9756

**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. The 9756 completes our 4-way and 8-way range.

- 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
- 6-way
- Optimized performance and power consumption
- Compact die-cast housing for easy installation

## Specifications 9756

Trunk inputs/outputs	-	Sat.: 4   Terr.: 1
dSCR outputs	-	6
Frequency	MHz	Sat.: 290 - 2340   Terr.: 88 - 862
Min input level SAT	dBμV	Universal LNB: 62 - 106   Wideband LNB: 67 - 106
Max input level TERR	dBμV	-
Trunk return loss	dB	>10
Trunk insertion loss	dB	Sat.: 2   Terr.: 1.5
Sat positions	-	Universal LNB: 1   Wideband LNB: 2
dSCR channel output power	dBμV	88 (AGC controlled)
Output return loss	dB	>10
Terr tap loss	dB	18
SCR channels (16 users/output)	MHz	Between 950 and 2150
Supported standards	-	EN50494 (SCD)   EN50607 (SCD 2)   BskyB   Legacy
Trunk termination DC blocked required	Ohm	75 (Sat & Terr)
DC power via SAT trunks	V	20
Consumption	W	10
Operating temperature	°C	-20 to 50, indoor housing
Dimensions	mm	124 x 117 x 39

# Sat IF to IF Headend 9780ETH

## REMOTE ACCESS



The 9780ETH is the **new generation convertor** with cloud access, 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.

- Multi-functional satellite IF-IF Headend: convertor, stacker, equaliser, optimizer.
- Ethernet port for remote access
- 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 Systems with up to 128 passive splits
- Configure product: [www.ucloudserver.com](http://www.ucloudserver.com)

# 3-way dSCR Smart Splitter 4605

## NEW



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

# Satellite & Cable Line Amplifier 9658

**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.

- 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)



**WATCH PRODUCT VIDEO**

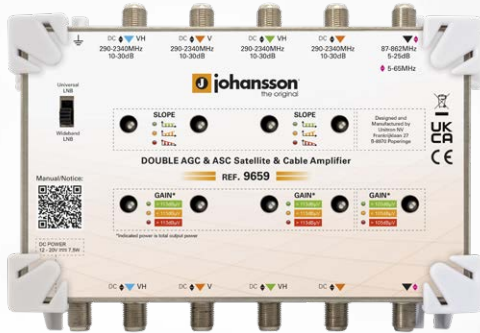
## Specifications 9658

Inputs	-	SAT V	SAT H	CABLE
Outputs	-	SAT V	SAT H	CABLE
Frequency range	MHz	290 - 2400 (Wideband) 950 - 2150 (Universal)		87 - 862
Gain	dB	10 - 30		
Noise figure	dB	5		
Gain adjustment	dB	20 (Automatic Gain Control)		
Slope adjustment	dB	15 (Automatic Slope Control)		
Output level	dBμV	113	105	
Cable Return Path	MHz	-	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		

# Double Satellite & Cable Line Amplifier

## 9659

**AGC & ASC**



An ideal launch amplifier for Multiswitch systems with a Cable/CATV path.

The AGC & ASC Satellite & Cable Amplifier optimizes your Wideband V/H (290-2400 MHz) and Cable (87-862MHz) signal in real-time.

Suitable for 2 wideband LNBs, or 1 Quattro LNB.

- Automatic Gain Control on all lines (V/H/Cable) and Automatic Slope Control on both satellite lines (V/H)
- DC input 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)



**WATCH PRODUCT VIDEO**

Wideband Satellite Distribution

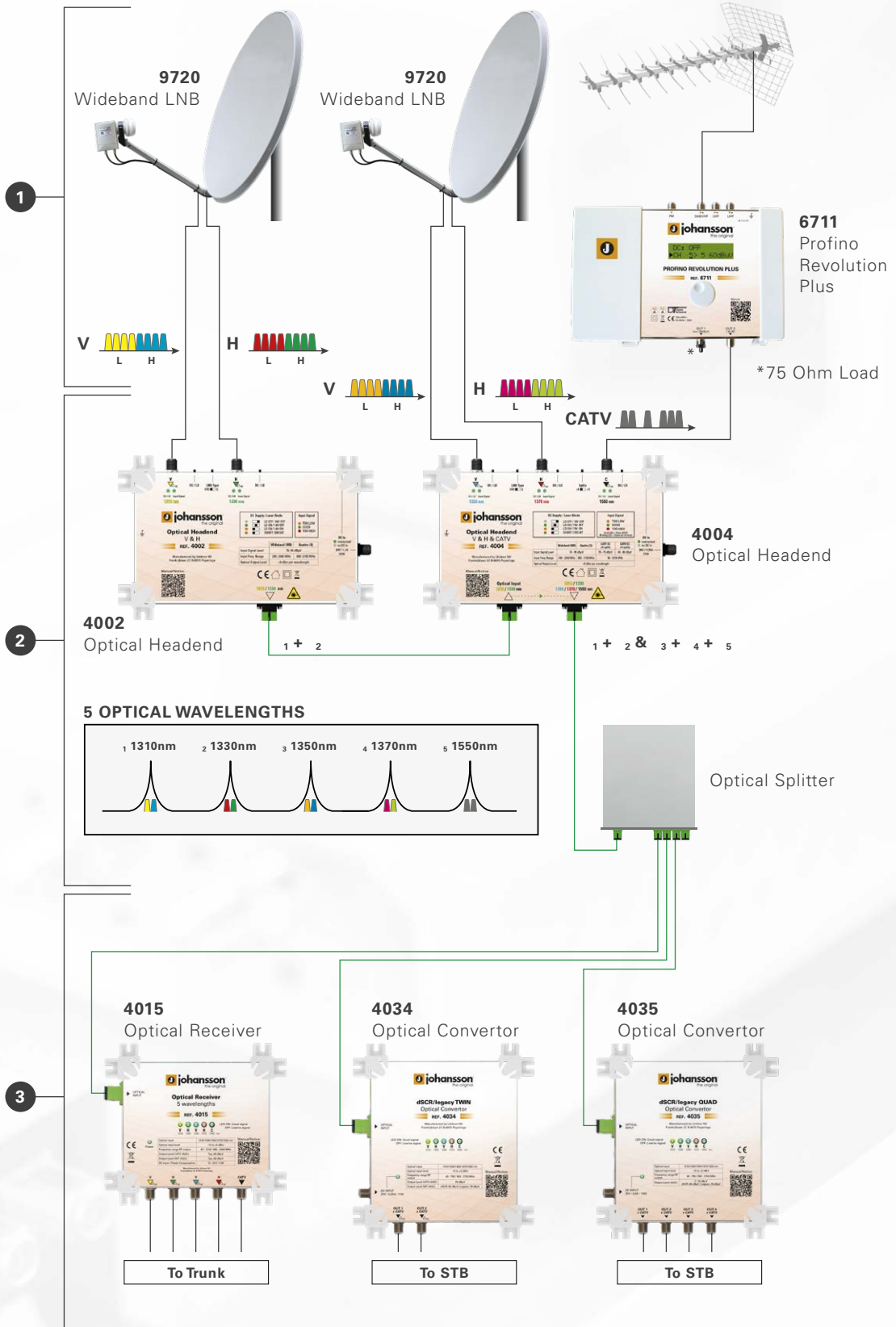
## Specifications 9659

Inputs	-	SAT V1	SAT H1	SAT V2	SAT H2	CABLE
Outputs	-	SAT V1	SAT H1	SAT V2	SAT H2	CABLE
Frequency range	MHz	290 - 2400 (Wideband) 950 - 2150 (Universal)				87 - 862
Gain	dB	10 - 30				5 - 25
Noise figure	dB	5				
Gain adjustment	dB	20 (Automatic Gain Control)				
Slope adjustment	dB	15 (Automatic Slope Control)				-
Output level	dBμV	113				105
Cable Return Path	MHz	-				5 - 65
Consumption	-	400 mA max. from 12-20 VDC external power supply or input / output				
Power consumption	W	9				
Dimensions	mm	129 x 150 x 51				
Weight	kg	0,350				

# 2 SAT POSITIONS

## Fiber Optical Distribution

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.

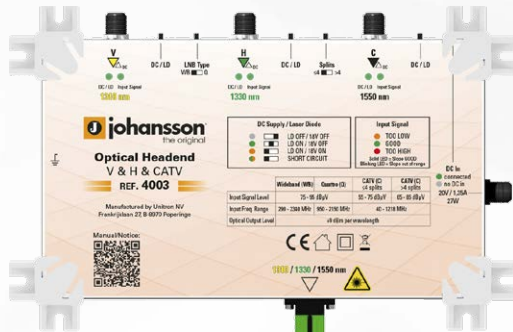
The optical receiver converts 5 optical wavelengths to Wideband V/H and CATV.

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



# Optical Headend 4002 - 4003

## 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 Optical Transmitters are suited for many types of optical systems: up to 128 splits and even more than 2000 splits!

### 4002

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

### 4003

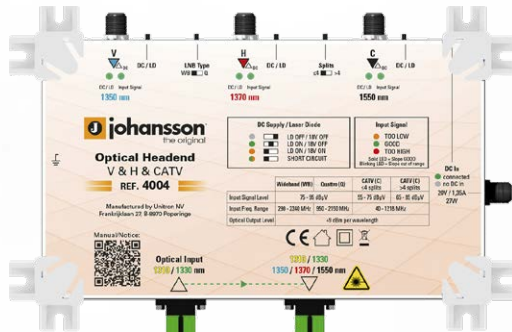
- 2 Satellite (Wideband / Quattro) and 1 CATV (47 – 1218 MHz) input
- 1310-1330-1550 nm
- AGC & ASC

## Specifications 4002 - 4003

		4002	4003
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 output wavelengths	nm	1310 - 1330	1310 - 1330 - 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 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 is of optimal quality 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 wavelengths.

## 4004

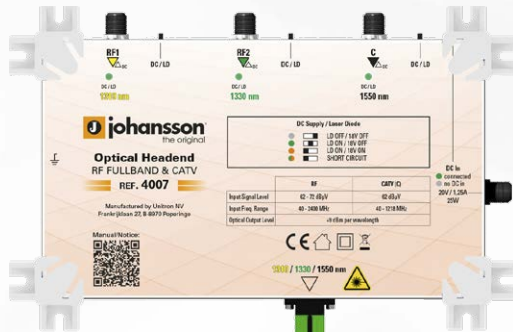
- 2 Satellite (Wideband / Quattro) inputs
- 1350 - 1370 - 1550 nm
- AGC & ASC
- 1 bypass input to combine 1310 and 1330 from ref. 4002

## Specifications 4004

		4004
RF Inputs (F-connector)	-	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 (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	27
DC input (F-type)	-	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

## 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!

### 4005

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

### 4007

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

### 4006

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

## Specifications 4005 - 4006 - 4007

		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

## 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)

## Specifications 4011 - 4012 - 4013 - 4014

		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 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)

## Specifications 4015

		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	dB $\mu$ V	80
Output level CABLE AGC	dB $\mu$ V	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

## 4031 - 4032 - 4033 - 4036



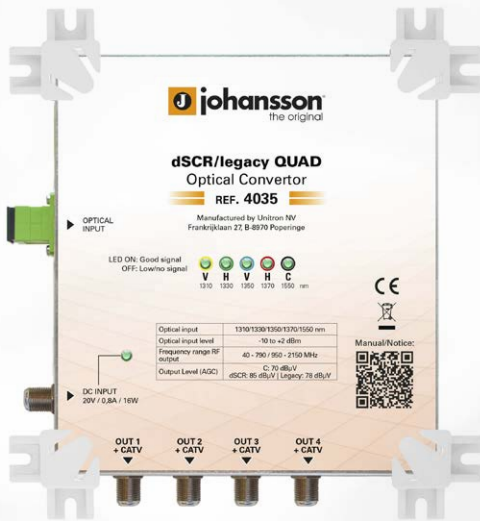
**dSCR/legacy Optical Converters** with high output power, developed to help installers overcome low signal quality in satellite fiber installations.

- 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)

## Specifications 4031 - 4032 - 4033 - 4036

		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 4034 - 4035



Unique dSCR/legacy TWIN/QUAD Optical Converter 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)

## Specifications 4034 - 4035

		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



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