

# Johansson | CATALOGUE

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EDITION 2012

 **johansson**



## Johansson

### Quality brand of the UnitronGroup

Johansson is the quality brand of the UnitronGroup, an international organization with its headquarter in Poperinge, Belgium.

UnitronGroup develops, manufactures and sells equipment and accessories for the reception and distribution of digital television and multimedia applications.

The company has existed for over 50 years, and started as a manufacturer of filters and amplifiers for analog TV. The company became bigger and bigger, but the overall goal remained unharmed: design quality products and serve our customers the best we can! How? By delivering products they really need. The best way to do this, is to listen to the customer instead of the competition. This is probably the main reason, the small company of 50 years ago, is now market leader in several product categories!

This new catalogue shows some of our latest designs. Again, most of these products are market (or customer)-driven, but of course we want to surprise you with other products, which we believe, are really state-of-the-art and unique. This is what innovation is all about: listen carefully, and try to go further!

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# Digital Modular Headend

- ▶ Johansson has developed a complete range of Digital Modular Headends (DMH), which are the ideal TV distribution system for middle-sized and large buildings (MDU). We offer a complete product range, consisting of COFDM (DVB-T) and QAM (DVB-C) modulators and IPTV streamers. All of these products are available with satellite, terrestrial or A/V inputs. Thanks to the modular design, the system is scalable to suit your specific needs. We also present our newest configuration software, called UUI (page...).



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# Digital Modular Headend

ProQuad | QPSK → COFDM

The **QPSK** to **COFDM** modules each have 4 inputs allowing the reception of 4 different satellite bands per module. Because all modules have 4 satellite tuners and a built-in multiswitch, reception of 4 different transponders coming from one of the 4 input satellite bands is possible.

Depending on the type of module, up to 4 COFDM multiplexes can be distributed per module, offering you one of the most flexible and cost-efficient solutions available on the market!

5302S | T | Q

- ▶ 4 satellite tuners (reception of 4 transponders per module)
- ▶ 4 satellite inputs (4 satellite bands per module)
- ▶ Integrated multiswitch allows flexible routing of satellite programs to COFDM multiplexes
- ▶ distribute up to 32 programs per module
- ▶ ref. 5303S/T/Q: decode up to 12 programs per module with multi-service CAM (decoded programs from all 4 tuners can be routed through 1 CAM)
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ remote access possibility

5303S | T | Q

5302S | 5303S | 5302T | 5303T | 5302Q | 5303Q

Input: QPSK (DVB-S2)

Number of inputs	-	4 with 4 active loop-through outputs (0 dB loss)
Tuner	-	4 tuners (4 transponders)
Frequency range	MHz	950-2150
level	dBm	-55 to -25
Bandwidth	MHz	36
Modulation	-	DVB-S2: QPSK, 8-PSK DVB-S: QPSK
LNB power (DC+tone)	V	13/18 + 22kHz
LNB current per input	mA	max. 150

Output: COFDM (DVB-T)

Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	1      2 adjacent      4 adjacent
Channel bandwidth	MHz	6/7/8
Modulation	-	QPSK, 16-QAM, 64-QAM
OFDM mode	-	2K
Forward Error Correction (FEC)	-	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	-	1/4, 1/8, 1/16, 1/32
Output bitrate/mux	Mbps	up to 31,7
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBpV	68 to 83 (adjustable)
CI-slot	-	no    yes    no    yes    no    yes
Capacity	-	up to 8 programs    up to 16 programs    up to 32 programs

General

Connectors	-	RF: 10 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	1,5
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm



# Digital Modular Headend

ProQuad | COFDM → COFDM



The **COFDM** to **COFDM** modules are the ideal solution to regenerate a poor quality COFDM signal. But the 5310Q and 5311Q are much more powerful than a normal COFDM regenerator! Each module has 4 COFDM tuners, and 4 COFDM modulators. Thanks to a built-in multiswitch, remapping of the programs between the input and the output is possible. This makes it possible to rearrange the multiplexes, delete some programs, change the COFDM parameters,...

- ▶ 4 tuners allow reception of 4 multiplexes per module
- ▶ 4 output COFDM multiplexes per module
- ▶ distribute up to 32 programs per module
- ▶ decode up to 12 programs per module with multi-service CAM (5311Q)
- ▶ easy configuration with builtin webserver or optional UUI configuration software
- ▶ remote access possibility

5310Q

5311Q

5310Q   5311Q		
Input: COFDM (DVB-T)		
Number of inputs	-	1 with 1 active loop-through output ( $\pm 1$ dB)
Tuner	-	4 tuners (4 multiplexes)
Frequency range	MHz	VHF: 174-230 UHF: 470-862
Level	dBm	-55 to -20
Bandwidth	MHz	6/7/8
Modulation	-	QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 16-QAM: 1/2, 2/3, 3/4, 5/6, 7/8 64-QAM: 1/2, 2/3, 3/4, 5/6, 7/8
LNA power	V	5/12/24 (max. 100 mA)
Output: COFDM (DVB-T)		
Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	4 adjacent
Channel bandwidth	MHz	6/7/8
Modulation	-	QPSK, 16-QAM, 64-QAM
OFDM mode	-	2K
Forward Error Correction (FEC)	-	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	-	1/4, 1/8, 1/16, 1/32
Output bitrate/mux	Mbps	up to 31,7
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dB $\mu$ V	68 to 83 (adjustable)
CI-slot	-	no                      yes
Capacity	-	up to 32 programs
General		
Connectors	-	RF: 4 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	1,5
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

nieuwe opname

# Digital Modular Headend

## ProQuad | AV → COFDM

The quad AV to COFDM module has 4 inputs, to distribute up to 4 analog video sources over the COFDM network.

5330

- ▶ 4 AV stereo inputs per module
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ change important parameters: LCN, resolution, brightness, contrast, hue, saturation,...
- ▶ ideal solution for CCTV or near-VOD!
- ▶ remote access possibility



5330

### Input: CVBS (A/V)

Number of inputs	-	4 x AV (CVBS)
Video processing	-	Conformance with IEC 13818-2 (MPEG2 video) and ISO/IEC 11172-3 (MPEG1 audio) standards
Video resolution	-	SIF: 352 x 288 SVCD: 480 x 576 HALF D1: 352 x 576 D1: 720 x 576 544: 544 x 576
Video bitrate	kbps	1500 to 7000 (Typ. 6000)
Audio volume	dB	-6 to +6 (Typ. 0)

### Output: COFDM (DVB-T)

Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	2 adjacent
Channel bandwidth	MHz	6/7/8
Modulation	-	QPSK, 16-QAM, 64-QAM
OFDM mode	-	2K
Forward Error Correction (FEC)	-	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	-	1/4, 1/8, 1/16, 1/32
Output bitrate/mux	Mbps	up to 31,7
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBμV	68 to 83 (adjustable)
Capacity	-	4 programs

### General

Connectors	-	Video input (4 x CINCH) Audio input: 4 x 3,5 mm jack RF: 2 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	0,8
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm



# Digital Modular Headend

ProQuad | QPSK → QAM



The **QPSK** to **QAM** modules each have 4 inputs allowing the reception of 4 different satellite bands per module. Because all modules have 4 satellite tuners and a built-in multiswitch, reception of 4 different transponders coming from one of the 4 input satellite bands is possible. Depending on the type of module, up to 4 QAM multiplexes can be distributed per module, offering you one of the most flexible and cost-efficient solutions available on the market!

5352S|T|Q

- ▶ 4 satellite tuners (reception of 4 transponders per module)
- ▶ 4 satellite inputs (4 satellite bands per module)
- ▶ Integrated multiswitch allows flexible routing of satellite programs to QAM multiplexes
- ▶ distribute up to 32 programs per module
- ▶ ref. 5353S/T/Q: decode up to 12 programs per module with multi-service CAM (decoded programs from all 4 tuners can be routed through 1 CAM)
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ remote access possibility

5353S|T|Q

5352S | 5353S | 5352T | 5353T | 5352Q | 5353Q

## Input: QPSK (DVB-S2)

Number of inputs	-	4 with 4 active loop-through outputs (0 dB loss)
Tuner	-	4 tuners (4 transponders)
Frequency range	MHz	950-2150
level	dBm	-55 to -25
Bandwidth	MHz	36
Modulation	-	DVB-S2: QPSK, 8-PSK DVB-S: QPSK
LNB power (DC+tone)	V	13/18 + 22kHz
LNB current per input	mA	max. 150

## Output: QAM (DVB-C)

Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	1      2 adjacent      4 adjacent
Channel bandwidth	MHz	6/8
Modulation	-	6 MHz: 64-QAM 8 MHz: 64-QAM/256-QAM
Output bitrate/mux	Mbps	up to 51,3
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBpV	68 to 83 (adjustable)
CI-slot	-	no    yes    no    yes    no    yes
Capacity	-	up to 8 programs    up to 16 programs    up to 32 programs

## General

Connectors	-	RF: 10 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Modular Headend

ProQuad | COFDM → QAM

The **COFDM** to **QAM** modules allow the reception of 4 COFDM multiplexes, which can be remapped and transmodulated to 4 QAM multiplexes.

- ▶ 4 tuners (reception of 4 multiplexes per module)
- ▶ 4 QAM output multiplexes per module
- ▶ integrated multiswitch allows flexible routing of satellite programs to QAM multiplexes
- ▶ distribute up to 32 programs per module
- ▶ ref. 5361Q: decode up to 12 programs per module with multi-service CAM (decoded programs from all 4 tuners can be routed through 1 CAM)
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ remote access possibility

5360Q

5361Q

nieuwe opname

	5360Q	5361Q
Input: COFDM (DVB-T)		
Number of inputs	-	1 with 1 active loop-through output (± 1 dB)
Tuner	-	4 tuners (4 multiplexes)
Frequency range	MHz	VHF: 174-230 UHF: 470-862
Level	dBm	-55 to -20
Bandwidth	MHz	6/7/8
Modulation	-	QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 16-QAM: 1/2, 2/3, 3/4, 5/6, 7/8 64-QAM: 1/2, 2/3, 3/4, 5/6, 7/8
LNA power	V	5/12/24 (max 100 mA)
Output: QAM (DVB-C)		
Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	4 adjacent
Channel bandwidth	MHz	6/8
Modulation	-	6 MHz: 64-QAM 8 MHz: 64-QAM/256-QAM
Output bitrate/mux	Mbps	up to 51,3
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBµV	68 to 83 (adjustable)
CI-slot	-	no yes
Capacity	-	up to 32 programs
General		
Connectors	-	RF: 4 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Modular Headend

ProQuad | AV → QAM



The quad AV to QAM module has 4 inputs, to distribute up to 4 analog video sources over the QAM network.

- ▶ 4 AV stereo inputs per module
- ▶ easy configuration with builtin webserver or optional UUI configuration software
- ▶ change important parameters: LCN, resolution, brightness, contrast, hue, saturation,...
- ▶ ideal solution for CCTV or near-VOD!
- ▶ remote access possibility

5380



DMH

5380

nieuwe opname

Input: CVBS (A/V)		
Number of inputs	-	4 x AV (CVBS)
Video processing	-	Conformance with IEC 13818-2 (MPEG2 video) and ISO/IEC 11172-3 (MPEG1 audio) standards
Video resolution	-	SIF: 352 x 288 SVCD: 480 x 576 HALF D1: 352 x 576 D1: 720 x 576 544: 544 x 576
Video bitrate	kbps	1500 to 7000 (Typ. 6000)
Audio volume	dB	-6 to +6 (Typ. 0)
Output: QAM (DVB-C)		
Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	2 adjacent
Channel bandwidth	MHz	6/8
Modulation	-	6 MHz: 64-QAM 8 MHz: 64-QAM/256-QAM
Output bitrate/mux	Mbps	up to 51,3
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBµV	68 to 83 (adjustable)
Capacity	-	4 programs
General		
Connectors	-	Video input (4 x CINCH) Audio input: 4 x 3,5 mm jack RF: 2 x "F" connector female Management: RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	0,8
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Modular Headend

ProStreamer | QPSK → IPTV

Thanks to 4 satellite inputs per module, each module is able to receive the 4 satellite bands. The modules have 4 satellite tuners and a multiswitch inside to offer a fully flexible interconnection between the inputs and the tuners. All IPTV modules have 2 separate Ethernet ports: one for streaming output and one for configuration. This allows the user to separate the streaming traffic from the configuration, to avoid unauthorized access.

- ▶ 4 satellite tuners (reception of 4 transponders per module)
- ▶ 4 satellite inputs (4 satellite bands per module)
- ▶ distribute up to 16 programs per module
- ▶ ref. 5203: decode up to 12 programs per module with multi-service CAM (decoded programs from all 4 tuners can be routed through 1 CAM)
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ remote access possibility

5202

5203



nieuwe opname

	5202	5203
Input: QPSK (DVB-S2)		
Number of inputs	-	4 with 4 active loop-through outputs (0 dB loss)
Tuner	-	4 tuners (4 transponders)
Frequency range	MHz	950-2150
level	dBm	-55 to -25
Bandwidth	MHz	36
Modulation	-	DVB-S2: QPSK, 8-PSK DVB-S: QPSK
LNB power (DC+tone)	V	13/18 + 22kHz
LNB current per input	mA	max. 150
Output: IPTV		
Standard	-	IEEE 802.3 10/100 Base-T
Protocol	-	Multicast IP/UDP
CI-slot	-	no   yes
Bitrate	Mbps	100
Capacity	-	up to 16 simultaneous streams
General		
Connectors	-	RF: 8 x "F" connector female Streaming: 1 x RJ-45 (Ethernet) Management: 1 x RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	0,6   0,8
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Modular Headend

ProStreamer | COFDM → IPTV



Many countries offer a nice bouquet of DVB-T/DVB-T2 programs, often free-to-air. With the **COFDM** to **IPTV** modules, these programs can be distributed over the network via Ethernet. All modules have 4 COFDM tuners, to receive 4 DVB-T/DVB-T2 multiplexes.



5210 | 5212

- ▶ 4 tuners (reception of 4 multiplexes per module)
- ▶ distribute up to 16 programs per module
- ▶ ref. 5211/5213: decode up to 12 programs per module with multi-service CAM (decoded programs from all 4 tuners can be routed through 1 CAM)
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ remote access possibility



5211 | 5213

nieuwe opname

		5210		5211		5212		5213									
Input: COFDM (DVB-T)									Input: COFDM (DVB-T2)								
Number of inputs	-	1 with 1 active loop-through output (± 1 dB)															
Tuner	-	4 tuners (4 multiplexes)															
Frequency range	MHz	VHF: 174-230 UHF: 470-862								50-870							
level	dBm	-55 to -20															
Bandwidth	MHz	6/7/8								1,7/5/6/7/8							
Modulation	-	QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 16-QAM: 1/2, 2/3, 3/4, 5/6, 7/8 64-QAM: 1/2, 2/3, 3/4, 5/6, 7/8								QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 16-QAM: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 64-QAM: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 256-QAM: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6							
LNA power	V	5/12/24 (100 mA max)															
Output: IPTV																	
Standard	-	IEEE 802.3 10/100 Base-T															
Protocol	-	Multicast IP/UDP															
CI-slot	-	no				yes				no				yes			
Bitrate	Mbps	100															
Capacity	-	up to 16 simultaneous streams															
General																	
Connectors	-	RF: 2 x "F" connector female Streaming: 1 x RJ-45 (Ethernet) Management: 1 x RJ-45 (Ethernet) DC: banana sockets															
Power supply	VDC	15															
Consumption	A	0,5				0,7				0,5				0,7			
Operating temperature	°C	0 to +40															
Dimensions	-	5 RU x 8 TE x 195 mm															

# Digital Modular Headend

ProStreamer | AV → IPTV

The quad AV to IPTV module has 4 inputs, to distribute up to 4 analog video sources over the Ethernet network.

5230

- ▶ 4 AV stereo inputs per module
- ▶ easy configuration with built-in webserver or optional UUI configuration software
- ▶ change important parameters: LCN, resolution, brightness, contrast, hue, saturation,...
- ▶ ideal solution for CCTV or near-VOD!
- ▶ remote access possibility



nieuwe opname

5230

## Input: CVBS (A/V)

Number of inputs	-	4 x AV (CVBS)
Video processing	-	Conformance with IEC 13818-2 (MPEG2 video) and ISO/IEC 11172-3 (MPEG1 audio) standards
Video resolution	-	SIF: 352 x 288 SVCD: 480 x 576 HALF D1: 352 x 576 D1: 720 x 576 544: 544 x 576
Video bitrate	kbps	1500 to 7000 (Typ. 6000)
Audio volume	dB	-6 to +6 (Typ. 0)

## Output: IPTV

Standard	-	IEEE 802.3 10/100 Base-T
Protocol	-	Multicast IP/UDP
Bitrate	Mbps	100
Capacity	-	4 streams

## General

Connectors	-	Video input (4 x CINCH) Audio input: 4 x 3,5 mm jack Streaming: 1 x RJ-45 (Ethernet) Management: 1 x RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	0,65
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Modular Headend



Accessories | Power Supply Unit

5050ETH | 5050UKETH

5050ETH   5050UKETH		
Input voltage	VAC	90 to 264
Output voltage	VDC	15
Output power	W	150
Weight	kg	2
Dimensions	-	5 RU x 12 TE x 180 mm



Accessories | 19" sub-rack

5060ETH		
Number of slots	-	Up to 9 modules (+ 1 power supply unit)
Weight	kg	3,3
Dimensions	-	19" x 5 RU x 195 mm

5060ETH



Accessories | Fan unit

5062ETH   5062UKETH		
Input voltage	VAC	90 to 264
Power consumption	VA	35
Weight	kg	4,9
Dimensions	-	19" x 2 RU x 155 mm

5062ETH | 5062UKETH





# Digital Compact Headend

- ▶ Johansson introduces the new range of Digital Compact Headends, known as "Colosseum". Already shortly after their introduction in Germany, these compact TV distribution stations were recommended by several magazines for their ease of use, compactness and most off all, powerful performance! And this was exactly the goal of the Johansson Colosseum products: A Plug & Play solution to provide TV distribution in medium sized buildings. A key aspect of being plug & play is that the devices are preprogrammed for a specific region, enabling the installer to have a TV image in less than 2 minutes! The Colosseum is the perfect solution for hotels, motels, recreation parks, hospitals,... to switch the old analogue TV distribution system to a fully digital one!





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# Digital Compact Headend

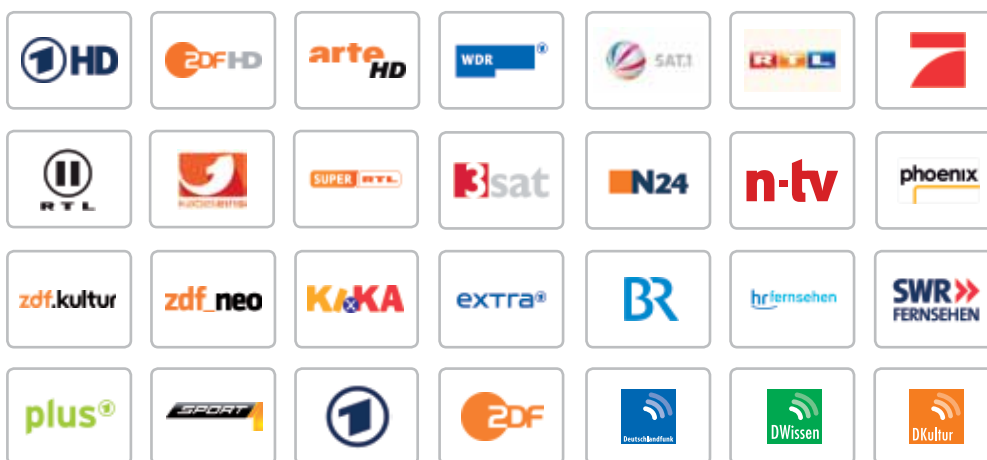
Colosseum DVB-T Germany

The Colosseum DVB-T (ref. 8500D) is a plug&play compact headend for digital TV. The device is preprogrammed to distribute 28 German satellite programs in DVB-T (COFDM). Because all services and settings are preconfigured, the only thing you have to do is plug in the cables, and scan the TV's. This makes it an ideal solution to replace the old analogue headends during or after the switch-off.

8500D



- ▶ Plug&Play compact headend
- ▶ 8 transponders / 8 satellite bands / 8 COFDM multiplexes
- ▶ preconfigured with 28 German programs
- ▶ changes to the default settings can be made with a built-in webGUI or an innovative user interface, called UUI
- ▶ innovative and compact design
- ▶ from analog to digital in 2 minutes!



Other configurations can be made on request with respect to our terms and conditions.



# Digital Compact Headend

## Colosseum DVB-T Germany



8500D		
Input: QPSK (DVB-S2)		
Number of inputs	-	4 with 4 active loop-through outputs (0 dB loss)
Tuner	-	4 tuners (4 transponders)
Frequency range	MHz	950-2150
level	dBm	-55 to -25
Bandwidth	MHz	36
Modulation	-	DVB-S2: QPSK, 8-PSK DVB-S: QPSK
LNB power (DC+tone)	V	13/18 + 22kHz
LNB current per input	mA	max. 150
Output: COFDM (DVB-T)		
Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	8 adjacent
Channel bandwidth	MHz	6/7/8
Modulation	-	QPSK, 16-QAM, 64-QAM
OFDM mode	-	2K
Forward Error Correction (FEC)	-	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	-	1/4, 1/8, 1/16, 1/32
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBµV	68 to 83 adjustable
Capacity	-	up to 64 programs (preprogrammed with 28 services)
General		
Connectors	-	RF: 20 x "F" connector female Management: 2 x RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	3
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Compact Headend

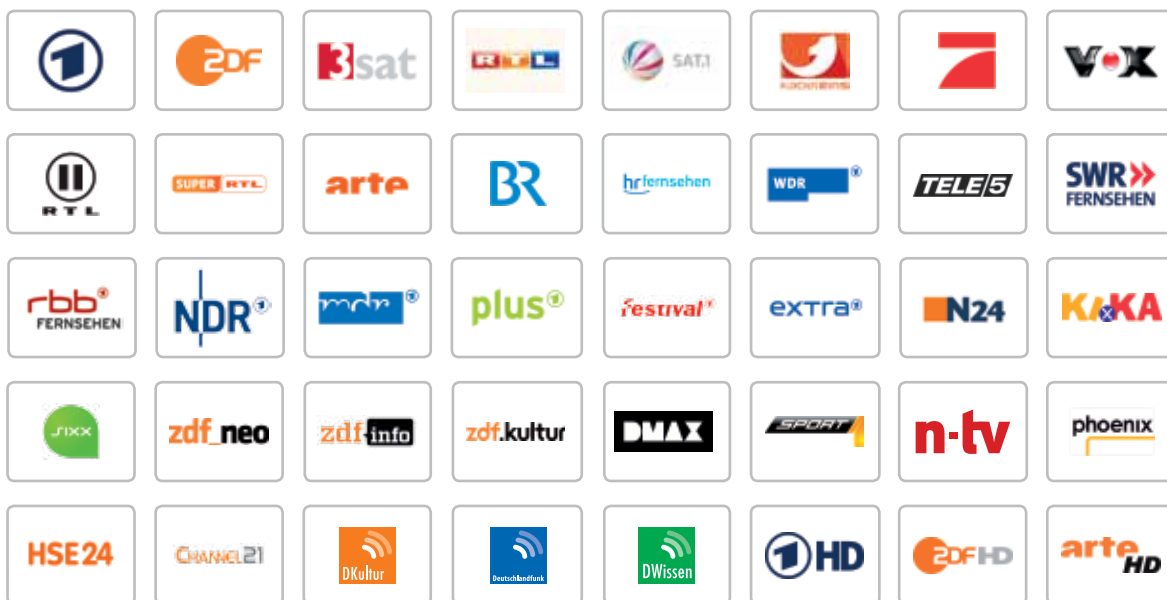
Colosseum DVB-C Germany

The Colosseum DVB-C (ref. 8550D) is a plug&play compact headend for digital TV. The device is preprogrammed to distribute 43 German satellite programs in DVB-C (QAM). Because all services and settings are preconfigured, the only thing you have to do is plug in the cables, and scan the TV's. This makes it an ideal solution to replace the old analogue headends during or after the switch-off.

8550D



- ▶ Plug&Play compact headend
- ▶ 8 transponders / 8 satellite bands / 8 QAM multiplexes
- ▶ preconfigured with 43 German programs
- ▶ changes to the default settings can be made with a built-in webGUI or an innovative user interface, called UUI
- ▶ innovative and compact design
- ▶ from analog to digital in 2 minutes!



Other configurations can be made on request with respect to our terms and conditions.



# Digital Compact Headend

Colosseum DVB-C Germany



8550D		
Input: QPSK (DVB-S2)		
Number of inputs	-	4 with 4 active loop-through outputs (0 dB loss)
Tuner	-	4 tuners (4 transponders)
Frequency range	MHz	950-2150
level	dBm	-55 to -25
Bandwidth	MHz	36
Modulation	-	DVB-S2: QPSK, 8-PSK DVB-S: QPSK
LNB power (DC+tone)	V	13/18 + 22kHz
LNB current per input	mA	max. 150
Output: QAM (DVB-C)		
Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	8 adjacent
Channel bandwidth	MHz	6/8
Modulation	-	6 MHz: 64-QAM 8 MHz: 64-QAM/256-QAM
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBµV	68 to 83 adjustable
Capacity	-	up to 64 programs (preprogrammed with 43 services)
General		
Connectors	-	RF: 20 x "F" connector female Management: 2 x RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	3
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

# Digital Compact Headend

## Colosseum AV

The Johansson Colosseum AV is the perfect solution to distribute AV sources (DVD, set-top boxes, PC, Camera,...) over the coaxial distribution network in DVB-T (COFDM) format. The Colosseum AV is a compact and plug-and-play solution.

8530 | 8530 UK



- ▶ distribute up to 8 AV sources over the coaxial network in digital (DVB-T) format
- ▶ compact and innovative design
- ▶ easy plug & play installation
- ▶ edit all kinds of parameters: LCN numbers (works in all countries!), resolution, brightness, aspect ratio, hue, saturation, ...
- ▶ configure with built-in webGUI or advanced universal user interface (UUI)

### 8530/8530UK

#### Input: CVBS (A/V)

Number of inputs	-	4 x AV (CVBS)
Video processing	-	Conformance with IEC 13818-2 (MPEG2 video) and ISO/IEC 11172-3 (MPEG1 audio) standards
Video resolution	-	SIF: 352 x 288 SVCD: 480 x 576 HALF D1: 352 x 576 D1: 720 x 576 544: 544 x 576
Video bitrate	kbps	1500 to 7000 (Typ. 6000)
Audio volume	dB	-6 to +6 (Typ. 0)

#### Output: COFDM (DVB-T)

Number of outputs	-	1 with 1 loop through (max 1,5 dB loss)
Frequency range	MHz	47-862 (VHF-UHF)
Multiplexes	-	4 adjacent
Channel bandwidth	MHz	6/7/8
Modulation	-	QPSK, 16-QAM, 64-QAM
OFDM mode	-	2K
Forward Error Correction (FEC)	-	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	-	1/4, 1/8, 1/16, 1/32
Modulation Error Rate (MER)	dB	40
Spectral inversion	-	yes
Output level	dBμV	68 to 83 adjustable
Capacity	-	8 Audio-Video services

#### General

Connectors	-	RF: 4 x "F" connector female Video input: 8 x CINCH Audio input: 8 x 3,5 mm jack Management: 2 x RJ-45 (Ethernet) DC: banana sockets
Power supply	VDC	15
Consumption	A	2
Operating temperature	°C	0 to +40
Dimensions	-	5 RU x 8 TE x 195 mm

## AV - sources input

## DVB-T coaxial distribution network



# Profilers

- The well-known Profilers are a range of programmable filter-amplifiers. The signals coming from multiple antennas can be combined, filtered, amplified, to offer the best possible signal for distribution of TV throughout the building. The profilers are very flexible and can be configured to your specific needs. We offer a broad range of profiler products, to fulfill your specific needs.





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# Profilers

## Super Profiler I Super Profiler SAT

**NEW**

The next generation profilers, commercialized as Profiler PLUS and Super Profiler, offer even better performance than their predecessors! Thanks to a new, in-house developed technology, the selectivity of the filters has noticeably increased. Because the new profilers have 4 UHF inputs, and 10 or 12 highly selective filters (depending on the model), even the most exotic situations are covered.

The Super Profilers have two built-in super selective single-channel filters with a selectivity of 30 dB at only 1 MHz. A very attractive feature is the frequency conversion: A multiplex can be converted to another frequency channel, offering you the possibility to manage your own frequency plan. This can be done by removing unwanted interferers, and moving the multiplexes of interest to other frequencies to avoid saturation or interference.

Configuration is either done with an innovative user interface on the PC (UUI), or with a standalone control unit (ref. 6565).



UUI

remote

6630

- ▶ 7/8 inputs: 4 x UHF/FM/VHF/AUX/SAT (6631 only)
- ▶ highly selective filters thanks to new filter technology (LTE proof)
- ▶ 2 super selective single channel filters: 30 dB @ 1 MHz
- ▶ 8 UHF filter clusters (30 dB @ 16 MHz): 1 to 7 channels bandwidth
- ▶ frequency conversion functionality
- ▶ high output level: >120 dBμV
- ▶ 2 programmable outputs
- ▶ low-temperature operation
- ▶ high-efficiency and ultra-reliable power supply (detachable)
- ▶ easy programming by PC or dedicated control unit (ref. 6565)
- ▶ remote configuration possible

6631



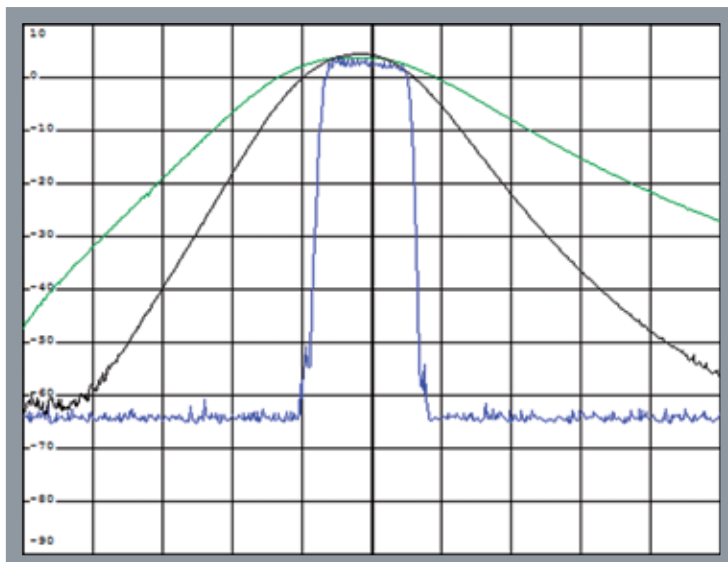
**FREQUENCY  
CONVERSION  
FUNCTIONALITY**



6630

6631

INPUTS	-	BI-FM	BIII/DAB	AUX	UHF1	UHF2	UHF3	UHF4	SAT
Frequency range	MHz	47-68 88-108	174-240	47-862	470-862				950-2300
Filter bandwidth	MHz	-			8 x cluster filter: 8-56 (1-7 ch.) 2 x super filter: 8 (single channel)				-
Gain	dB	35	40	30	60				45
Gain adjustment	dB	20	20	20	30				20
Slope adjustment	dB	-							10
General UHF level adjustment	dB	-			+10 to -10				-
Noise figure	dB	7	5	15	6				9
Max. input level	dBμV	80	80	80	105				90
Max. output level	dBμV	118	118	122	122				118
Selectivity	-	-			30 dB/1 MHz (2 x super filters) 30 dB/16 MHz (8 x cluster filters)				SAT/TERR.: >30 dB TERR./SAT: >25 dB
Return loss	dB	>10							
LNA remote voltage: 5/12/24 V LNA remote current	-	-	yes 100 mA	-	yes 100 mA total				0/13/18V and 0/22 kHz 300 mA
Outputs	-	2 x TV output 1 x Test output: -30 dB							1 x TV output 1 x TV-SAT output 1 x Test output: -30 dB
Configuration	-	PC (UUI software) or Control Unit (ref. 6565)							
Power supply	-	230-240 V~							
Operating temperature	°C	-5 to +50							
Dimensions	mm	325 x 220 x 60							



## SUPER SELECTIVE FILTERS

- First generation profiler: 20 dB @ 16 MHz
- Normal single-channel filter: 40 dB @ 16 MHz
- Super filter: 40 dB @ 1.25 MHz

# Profilers

## Profiler Plus

**NEW**



UI



remote



lte

6620



6622



- ▶ 7 inputs: 4 x UHF/FM/VHF/AUX
- ▶ highly selective filters thanks to new filter technology (LTE proof)
- ▶ 10 (ref. 6620)/12 (ref. 6622) UHF filter clusters (30 dB @ 16 MHz): 1 to 7 channels bandwidth
- ▶ high output level: >120 dBμV
- ▶ 2 programmable outputs
- ▶ low-temperature operation
- ▶ high-efficiency and ultra-reliable power supply (detachable)
- ▶ easy programming by PC or dedicated control unit (ref. 6565)
- ▶ remote configuration possible

INPUTS	-	BI-FM	Bill/DAB	AUX	UHF1	UHF2	UHF3	UHF4
Frequency range	MHz	47-68 88-108	174-240	47-862	470-862			
Number of UHF cluster filters	-	-			6620: 10 x cluster filter 6622: 12 x cluster filter			
UHF cluster filter bandwidth		-			1-7 Ch. (8-56 MHz)			
Gain	dB	35	40	30	60			
Gain adjustment	dB	20	20	20	30			
General UHF level adjustment	dB	-			+10 to -10			
Noise figure	dB	7	5	15	6			
Max. input level	dBμV	80	80	80	105			
Max. output level	dBμV	118	118	122	122			
Selectivity	dB/Ch±2	-			30			
Return loss	dB	>10						
LNA remote voltage: 5/12/24 V	-	-	yes	-	yes			
LNA remote current: 100 mA total	-	-	yes	-	yes			
Outputs	-	2 x TV output 1 x Test output: -30 dB						
Configuration	-	PC (UII software) or Control Unit (ref. 6565)						
Power supply	-	230-240 V~						
Operating temperature	°C	-5 to +50						
Dimensions	mm	325 x 220 x 60						

6620 • 6622

The Profiler PLUS headends are also available with satellite input. This offers a very flexible solution, where the profiler is capable of handling up to 4 UHF antennas, 3 VHF antennas and one LNB. Thanks to the UUI software or the dedicated control unit (ref. 6565), configuration of the profilers is easy.



6621



6623



- ▶ 8 inputs: 4 x UHF/FM/VHF/AUX/SAT
- ▶ highly selective filters thanks to new filter technology (LTE proof)
- ▶ 10 (ref. 6621)/12 (ref. 6623) UHF filter clusters (30 dB @ 16 MHz): 1 to 7 channels bandwidth
- ▶ high output level: >120 dB $\mu$ V
- ▶ 2 programmable outputs
- ▶ low-temperature operation
- ▶ high-efficiency and ultra-reliable power supply (detachable)
- ▶ easy programming by PC or dedicated control unit (ref. 6565)
- ▶ remote configuration possible

INPUTS	-	BI-FM	BIII/DAB	AUX	UHF1	UHF2	UHF3	UHF4	SAT
Frequency range	MHz	47-68 88-108	174-240	47-862	470-862				950-2300
Number of UHF cluster filters	-	-			6621: 10 x cluster filter 6623: 12 x cluster filter				-
UHF cluster filter bandwidth	-	-			1-7 Ch. (8-56 MHz)				-
Gain	dB	35	40	30	60				40
Gain adjustment	dB	20	20	20	30				20
Slope adjustment	dB	-							10
General UHF level adjustment	dB	-			+10 to -10				-
Noise figure	dB	7	5	15	6				9
Max. input level	dB $\mu$ V	80	80	80	105				90
Max. output level	dB $\mu$ V	118	118	122	122				118
Selectivity	dB/Ch $\pm$ 2	-			30				SAT/TERR.: >30 TERR./SAT.: >25
Return loss	dB	>10							
LNA remote voltage: 5/12/24 V LNA remote current	-	-	yes 100 mA	-	yes 100 mA total				0/13/18V and 0/22 kHz 300 mA
Outputs	-	2 x TV output 1 x Test output: -30 dB							1 x TV output 1 x TV-SAT output 1 x Test output: -30 dB
Configuration	-	PC (UUI software) or Control Unit (ref. 6565)							
Power supply	-	230-240 V~							
Operating temperature	°C	-5 to +50							
Dimensions	mm	325 x 220 x 60							

# Profilers

## Profiler

All profiler models have an automatic signal level equalizer, helping you to find the optimal gain for each filter. The profilers are equipped with a display, indication LEDs and a rotary button to make the configuration an easy task. Thanks to our memory-stick (ref. 6604), settings can easily be transferred from one unit to another. To avoid unauthorized people changing the settings, all Profiler products can be locked with a security code.

6600 | 6600A | 6600UK

- ▶ 6 inputs: BI-FM/BIII/VHF-UHF/3xUHF  
(UK version : FM/BIII/VHF-UHF/3 x UHF)
- ▶ 10 UHF programmable clusters from 1 to 7 channels bandwidth.
- ▶ high gain (55 dB) and High Power (120 dBμV)
- ▶ 24 V remote power on UHF and VHF-UHF inputs (12V for 6600UK and 6600A)
- ▶ VHF-UHF split band amplifier with inter-stage attenuators
- ▶ -30 dB Test Output



Inputs	-	BI-FM	BIII/DAB	VHF-UHF	UHF1	UHF2	UHF3
Frequency range	MHz	47-108	174-240	47-240 + 470-862	470-862		
Filter bandwidth	-	-			1-7 Ch. (8-56 MHz)		
Cluster configuration	-	-			2	8	0
					2	7	1
					2	5	3
Gain	dB	35	40	40	55		
Gain adjustment	dB	20	20	20	30		
General UHF level adjustment	dB	-			+ 10 to -9		
Noise figure	dB	5	5	5	6		
Max. input level	dBμV	75	85	80	105		
Max. output level	dBμV	115	115	VHF: 116    UHF: 116	120		
Selectivity	dB/Ch±2	-					
Return loss	dB	>10					
LNA remote voltage	V	-			24		
LNA remote current	A	-			100 mA total		
Outputs	-	1 x TV output 1 x Test output: -30 dB					
Data transfer	-	DSUB9 connector					
Power supply	-	230-240 V~ / 15 VDC / 35 VA					
Operating temperature	°C	-5 to +50					
Dimensions	mm	265 x 220 x 95					

The Profiler VHF is based on the normal Profiler, but offers 2 independent BIII/DAB inputs, and 2 programmable BIII/DAB filter clusters.

- ▶ 6 inputs : BI-FM/2 x BIII/3 x UHF
- ▶ 8 UHF programmable clusters from 1 to 7 channels bandwidth
- ▶ 2 BIII programmable clusters from 1 to 4 channels bandwidth
- ▶ high gain (55 dB) and High Power (120 dBμV)
- ▶ 24 V remote power on BIII and UHF inputs
- ▶ VHF-UHF split band amplifier with inter-stage attenuators
- ▶ -30 dB Test Output



6603

Inputs	-	BI-FM	BIII/DAB	VHF-UHF	UHF1	UHF2	UHF3
Inputs	-	BI-FM	BIII/DAB 1	BIII/DAB 2	UHF1	UHF2	UHF3
Frequency range	MHz	47-108	174-240	174-240	470-862		
Filter bandwidth	-	-	1-4 Ch. (7-28 MHz)	1-4 Ch. (7-28 MHz)	1-7 Ch. (8-56 MHz)		
Cluster configuration	-	-			2	6	0
					2	5	1
					2	3	3
Gain	dB	35	40	40	55		
Gain adjustment	dB	20	30	30	30		
General UHF level adjustment	dB	-	+10 to -9				
Noise figure	dB	5	5	5	6		
Max. input level	dBμV	75	75	80	105		
Max. output level	dBμV	112	100	100	120		
Selectivity	dB/Ch±2	28	25	25			
Return loss	dB	>10					
LNA remote voltage	V	-	24				
LNA remote current	A	-	100 mA total				
Outputs	-	1 x TV output 1 x Test output: -30 dB					
Data transfer	-	DSUB9 connector					
Power supply	-	230-240 V~ / 15 VDC / 35 VA					
Operating temperature	°C	-5 to +50					
Dimensions	mm	265 x 220 x 95					



# Profilers

## Profiler Lite 10

The Profiler Lite devices are a slimmed down version of the basic 6600 Profiler, offering the same flexibility, but a lower gain, less filter clusters and a lower number of inputs. These are ideal for smaller buildings, where the high gain of the 6600 Profiler is not needed.

6601 | 6601A | 6601UK

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



Inputs	-	BI-FM	BIII/DAB	UHF1	UHF2	UHF3
Frequency range	MHz	47-108	174-240	470-862		
Filter bandwidth	-	-		1-7 Ch. (8-56 MHz)		
Cluster configuration	-	-		2	8	0
				2	7	1
				2	5	3
Gain	dB	35	40	45		
Gain adjustment	dB	20	20	30		
General UHF level adjustment	dB	-		+10 to -9		
Noise figure	dB	5	5	6		
Max. input level	dBµV	75	80	105		
Max. output level	dBµV	115	115	113		
Selectivity	dB/Ch±2	-		20		
Return loss	dB	>10				
LNA remote voltage	V	-		24		
LNA remote current	A	-		100 mA total		
Outputs	-	1 x TV output 1 x Test output: -30 dB				
Data transfer	-	DSUB9 connector				
Power supply	-	230-240 V~ / 15 VDC / 35 VA				
Operating temperature	°C	-5 to +50				
Dimensions	mm	265 x 220 x 95				



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



6606

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

Inputs	-	BI-FM	BIII/DAB	UHF1	UHF2	UHF3			
Frequency range	MHz	47-108	174-240	470-862		-			
Filter bandwidth	-	-		1-7 Ch. (8-56 MHz)		-			
Cluster configuration	-	-	-	8	0	-			
				7	1	-			
				5	3	-			
Gain	dB	35	40	45					
Gain adjustment	dB	20	20	30					
General UHF level adjustment	dB	-		+10 to -9					
Noise figure	dB	5	5	6					
Max. input level	dBµV	75	80	105					
Max. output level	dBµV	115	115	113					
Selectivity	dB/Ch±2	-		20					
Return loss	dB	>10							
LNA remote voltage	V	-		24					
LNA remote current	A	-		100 mA total					
Outputs	-	1 x TV output 1 x Test output: -30 dB							
Data transfer	-	DSUB9 connector							
Power supply	-	230-240 V~ / 15 VDC / 35 VA							
Operating temperature	°C	-5 to +50							
Dimensions	mm	265 x 220 x 95							

6606

# Profilers

## Profilers SAT+ | Profiler SAT

In some situations the roof-top terrestrial antennas are accompanied by a satellite antenna, and both terrestrial and satellite signals have to be combined on the same coaxial cable for distribution throughout the building. The Profiler SAT series is the ideal product for these situations, by extending the normal Profiler with a satellite input.

### Profiler SAT+ | 6605

- ▶ 1 SAT input + 6 Terrestrial inputs : BI-FM/BIII/VHF-UHF/3xUHF
- ▶ 2 outputs: TV/TV-SAT
- ▶ 10 UHF programmable clusters from 1 to 7 channels bandwidth.
- ▶ VHF-UHF-SAT split band amplifiers with inter-stage attenuators
- ▶ high gain (50 dB) and high output power (118 dBμV)
- ▶ 0-13-18 V / 0-22 kHz remote power for LNB
- ▶ VHF-UHF split band amplifier with inter-stage attenuators
- ▶ -30 dB Test Output

6605



### Profiler SAT | 6602

- ▶ 1 SAT input + 6 Terrestrial inputs : BI-FM/BIII/VHF-UHF/3xUHF
- ▶ 10 UHF programmable clusters from 1 to 7 channels bandwidth.
- ▶ VHF-UHF-SAT split band amplifiers with inter-stage attenuators
- ▶ high gain (55 dB) and high output power (123 dBμV)
- ▶ 0-13-18 V / 0-22 kHz remote power for LNB
- ▶ VHF-UHF split band amplifier with inter-stage attenuators
- ▶ -30 dB Test Output

6602



INPUTS	-	BI-FM	BIII/DAB	VHF-UHF	UHF1	UHF2	UHF3	SAT
Frequency range	MHz	47-108	174-240	47-240 + 470-862	470-862			950-2300
Filter bandwidth	-	-			1-7 Ch. (8-56 MHz)			-
Cluster configuration	-	-			2	8	0	-
					2	7	1	
					2	5	3	
Gain (ref. 6602)	dB	35	40	40	55			40
Gain (ref. 6605)	dB	30	35	35	50			40
Gain adjustment	dB	20	20	20	30			20
Slope adjustment	dB	-						9
General UHF level adjustment	dB	-			+10 to -9			-
Noise figure	dB	5	5	5	6			8
Max. input level	dBµV	75	80	80	105			90
Max. output level (ref. 6602)	dBµV	115	115	VHF: 116 - UHF: 116	105			116
Max. output level (ref. 6605)	dBµV	112	112	VHF: 113 - UHF: 113	113			116
Selectivity	dB/Ch±2	-			20			SAT/TERR.: >30
								TERR./SAT.: >25
Return loss	dB	>10						
LNA/LNB remote voltage	V	-		24			0/13/18V and 0/22 kHz	
LNA/LNB remote current	A	-		100 mA total			300 mA	
Outputs (ref. 6602)	-	1 x TV-SAT output 1 x Test output: -30 dB						
Outputs (ref. 6605)	-	1 x TV output 1 x TV-SAT output 1 x Test output: -30 dB						
Data transfer	-	DSUB9 connector						
Power supply	-	230-240 V~ / 15 VDC / 35 VA						
Operating temperature	°C	-5 to +50						
Dimensions	mm	265 x 220 x 95						

In situations where a medium gain (in the order of 45 dB) is sufficient, and the high number of antenna inputs is not needed, the Profino could be the ideal solution!

The Profino is more compact than a normal Profiler, and apart from the reduced number of inputs, filter clusters and gain, the operation is identical to the other Profilers.

### Profino | 6610

- ▶ 4 inputs : BI-FM , BIII / DAB and 2 x UHF
- ▶ 5 UHF clusters from 1 to 7 channels bandwidth
- ▶ B III/ DAB input with 1 or 4 channels bandwidth filter
- ▶ BI-FM input for BI or FM or BI + FM
- ▶ high UHF input levels (up to 105 dBμV)
- ▶ selectable remote power (12/24V) on BIII and UHF inputs
- ▶ -30 dB Test Output

### Profino PLUS | 6611

6611 | 6610

- ▶ 4 inputs : FM, BIII / DAB and 2 x UHF
- ▶ 6 UHF clusters from 1 to 7 channels bandwidth
- ▶ B III/ DAB input with 1 or 4 channels bandwidth filter
- ▶ BI-FM input for BI or FM or BI + FM
- ▶ high UHF input levels (up to 105 dBμV)
- ▶ selectable remote power (12/24V) on BIII and UHF inputs
- ▶ -30 dB Test Output



6610 • 6610UK

Inputs	-	BI-FM	BIII/DAB	UHF1	UHF2
Frequency range	MHz	47-108	174-240	470-862	
Filter bandwidth	-	-	1 or 4 Ch. (7 or 28 MHz)	1-7 Ch. (8-56 MHz)	
Cluster configuration	-	47-68 MHz (BI) 88-108 MHz (FM) 47-108 MHz (BI+FM)	1 channel or 4 channels	3	2
				4	1
				5	0

6611

Frequency range	MHz	88-108	174-240	470-862	
Filter bandwidth	-	-	-	1-7 Ch. (8-56 MHz)	
Cluster configuration	-	-	-	4	2
				3	3
				6	0

6610 • 6610UK • 6611

Gain	dB	35	35	45	
Gain adjustment	dB	20	20 (6611)/30 (6610)	30	
Noise figure	dB	5	5	6	
Max. input level	dBµV	75	85	110	
Max. output level	dBµV	115	113	113	
Selectivity	dB/Ch±2	25	35	20	
Return loss	dB	>10			
LNA remote voltage	V	-	12/24	12/24	
LNA remote current	A	-	100 mA in total		
Outputs	-	1 x TV output 1 x Test output: -30 dB			
Data transfer	-	DSUB9 connector			
Power supply	-	230-240 V~ / 12 VDC / 20 VA			
Operating temperature	°C	-5 to +50			
Dimensions	mm	231 x 185 x 53			

# Profilers

## 4 IF Channel Processor

NEW

The 6520 offers 4 super-selective SAW filters in one compact sized zamak diecast housing. These filters can be used to convert 4 digital terrestrial channels to another frequency in the UHF band. Of course it can also be used as a super-selective single-channel filter in case a normal UHF filter is not sufficient (e.g. strong interference from an LTE source, or adjacent channel interference).

The 6520 can also be used as an extension with an existing Profiler Plus or Super Profiler. By connecting the 6520 to the AUX input of the Profiler, 4 frequency converting SAW filters are added to the system. And of course, it is also possible to interconnect several 6520's to provide more frequency converting single-channel filters. The 6520 can be controlled by means of a remote control (ref. 6565) or with the advanced Universal User Interface (UUI) for extended configuration possibilities.



6520

- ▶ 4 super selective single-channel filters: 40 dB @ 1.25 MHz
- ▶ 4 frequency converters to convert a digital channel to another UHF frequency
- ▶ auto install functionality: device automatically finds all digital channels, and lets the user choose the channels of interest
- ▶ interconnection of several 6520's or use in combination with a Super Profiler or Profiler Plus
- ▶ medium gain: 40 dB



Inputs	-	UHF1	Bypass input
Frequency range	MHz	470-790	
Number of IF clusters	-	4	-
Filter bandwidth	MHz	8 (single-channel)	-
Gain	dB	40	-
Gain adjustment	dB		-
Noise figure	dB		
Max. input level	dBμV	105	-
Max. output level	dBμV	105	-
Selectivity	dB/Ch±2		-
Return loss	dB		
Remote power	-	IN: +5 VDC / 12 VDC (1 A) Bypass: 24 VDC power pass from OUT (300 mA max.)	
Outputs	-	1 x TV output	
Power supply			
Consumption	A	1,325 (@5VDC)	
Operating temperature	°C	-5 to +50	
Dimensions	mm		

Programmable filter - equalizer

NEW

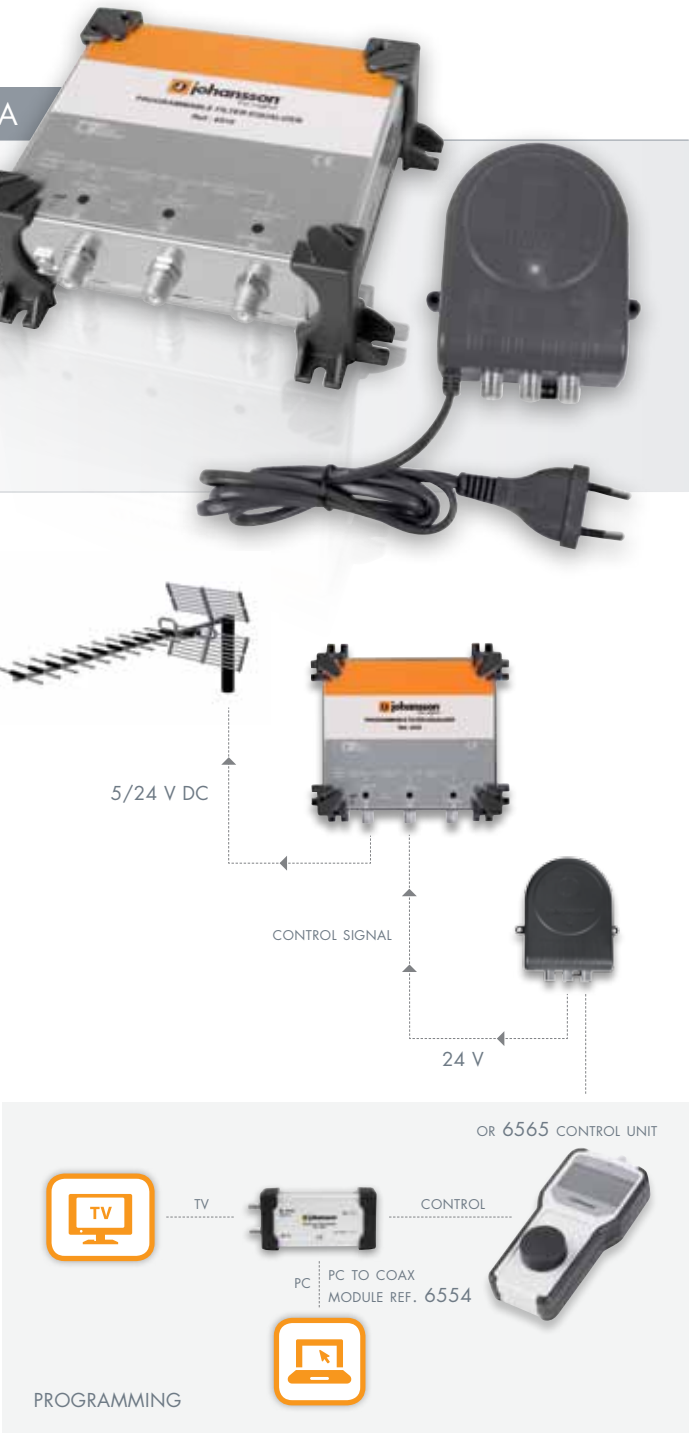
Ideal for smaller buildings, where the signals from several antennas have to be combined and equalized, where the high gain offered by the Profilers is not needed.

The 6510A single channel equalizer offers 6 single-channel filters in one small package. Because several countries distribute exactly 6 DVB-T multiplexes, this is a very compact solution. The bypass input enables the possibility to interconnect several 6510A's to extend the number of filters (e.g. when 6 additional multiplexes are added to distribute HD channels)



- ▶ 6 high-selectivity single-channel filters
- ▶ extend the number of filters by interconnecting multiple units
- ▶ active filtering and amplification of the signal
- ▶ selectable remote power (5/12/24V)
- ▶ easy configuration with PC or dedicated control unit (ref. 6565)
- ▶ remote programming possible
- ▶ delivered with high-efficiency power supply

6510A	Inputs	-	UHF1	Bypass input
	Frequency range	MHz	470-862	
	Number of filters	-	6	-
	Filter bandwidth	-	8 MHz (single channel)	-
	Gain	dB	15	-2
	Gain adjustment	dB	30	-
	Noise figure	dB	5	-
	Max. input level	dBµV	90	-
	Max. output level	dBµV	80	-
	Selectivity	dB/Ch±2	40	-
	Return loss	dB	>10	-
	Remote power	-	IN: +5 VDC / 24 VDC (100 mA) Bypass: 24 VDC power pass from OUT (300 mA max.)	
	Outputs	-	1 x TV output	
	Power supply	-	Delivered with remote power supply (ref. 2434)	
	Consumption	mA	120 (@24 VDC)	
	Operating temperature	°C	-5 to +50	
	Dimensions	mm	157 x 142 x 51	



# Profilers

## Programmable filter - equalizer

- ▶ 2 UHF inputs
- ▶ 6 UHF clusters from 1 to 7 channels bandwidth
- ▶ Selectable remote power on all inputs

Inputs	-	UHF1	UHF2
Frequency range	MHz	470-862	
Filter bandwidth	-	1-7 Ch. (8-56 MHz)	
Cluster configuration	-	6	0
		5	1
		3	3
Gain	dB	5	
Gain adjustment	dB	30	
Noise figure	dB	6	
Max. input level	dBµV	95	
Max. output level	dBµV	75	
Selectivity	dB/Ch±2	20	
Return loss	dB	>10	
Selectable DC power pass	-	yes	
Outputs	-	1 x TV output	
Power supply	-	External power adapter: 230-240 V~ / 5 VDC / Ø2,1 mm DC jack	
Consumption	mA	300	
Operating temperature	°C	-5 to +50	
Dimensions	mm	157 x 142 x 51	

6503 • 6503UK

6503



- ▶ 3 UHF inputs
- ▶ 10 UHF clusters from 1 to 7 channels bandwidth
- ▶ Selectable remote power on all inputs

Inputs	-	UHF1	UHF2	UHF3
Frequency range	MHz	470-862		
Filter bandwidth	-	1-7 Ch. (8-56 MHz)		
Cluster configuration	-	2	8	0
		2	7	1
		2	5	3
Gain	dB	5		
Gain adjustment	dB	30		
Noise figure	dB	6		
Max. input level	dBµV	95		
Max. output level	dBµV	75		
Selectivity	dB/Ch±2	20		
Return loss	dB	>10		
Selectable DC power pass	-	yes		
Outputs	-	1 x TV output		
Power supply	-	External power adapter: 230-240 V~ / 5 VDC / Ø2,1 mm DC jack		
Consumption	mA	500		
Operating temperature	°C	-5 to +50		
Dimensions	mm	222 x 142 x 51		

6504 • 6504UK

6504





- ▶ 3 inputs: 1xVHF/2xUHF
- ▶ 9 UHF clusters from 1 to 2 channels bandwidth
- ▶ 1 single-channel VHF cluster
- ▶ 2 outputs: 1xVHF/1xVHF-UHF
- ▶ Selectable remote power on all inputs

6505 • 6505UK

Inputs	-	VHF	UHF 1	UHF2
Frequency range	MHz	174-230	470-862	
Filter bandwidth	-	1 Ch. (8 MHz)	1 or 2 Ch. (8 or 16 MHz)	
Cluster configuration	-	1	9	0
		1	6	3
		1	5	4
Gain	dB	5		
Gain adjustment	dB	30		
Noise figure	dB	10	6	
Max. input level	dBµV	85	95	
Max. output level	dBµV	75		
Selectivity	dB/Ch±2	30	20	20
Return loss	dB	>10		
Selectable DC power pass	-	yes		
Outputs	-	1 x VHF output 1 x UHF output		
Power supply	-	External power adapter: 230-240 V~ / 5 VDC / Ø2,1 mm DC jack		
Consumption	mA	500		
Operating temperature	°C	-5 to +50		
Dimensions	mm	222 x 142 x 51		

6505 • 6505UK



# Profilers

## Active Combiners

The active combiners are designed for individual applications. In such situation, high gain is not required. The active combiner is the perfect solution for border zones, where several antennas are combined, to receive TV channels from different transmitters. In these situations, interference is a known problem, and the combination of the antenna signals cannot be done by simply inserting a combiner. This would cause the antenna signals to interfere with each other and signal quality will be very low.

The active combiner filters the wanted channels from several inputs, and combines these on the output, while rejecting all the other frequencies. The combiner itself is mounted in the roof, near the antennas, but configuration can be done remotely over the coaxial cable by PC or with a dedicated control unit (ref. 6565).



UII



remote

6557A

- ▶ active filtering and amplification of signal
- ▶ 2 / 3 / 4 inputs
- ▶ up to 6 clusters
- ▶ bypass with GSM-rejector (ref. 6550A)
- ▶ 1 to 7 channels bandwidth per cluster
- ▶ high selectivity filters
- ▶ accurate equalization of levels
- ▶ delivered with high-efficiency power supply
- ▶ remote programming via PC through coaxial cable or with dedicated control unit (ref. 6565)





		6550A	6555A
Input	-	UHF/UHF bypass	2 x UHF
Frequency range	MHz	470-862	470-862
Clusters	-	1/1 rejected	2
Bandwidth	MHz	8-56 (1 to 7 channels)	8-56 (1 to 7 channels)
Gain	dB	15	15
Gain adjustment	dB	30	30
Noise figure	dB	6	6
Max output level *	dBμV	80	80
Selectivity	dB/Ch±2	30	30
Consumption	mA	100 (24 VDC): power supply included	
Dimensions	mm	185 x 144 x 71	

		6556A	6557A
Input	-	3 x UHF	4 x UHF
Frequency range	MHz	470-862	470-862
Clusters	-	4	6
Bandwidth	MHz	8-56 (1 to 7 channels)	8-56 (1 to 7 channels)
Gain	dB	15	15
Gain adjustment	dB	30	30
Noise figure	dB	6	6
Max output level *	dBμV	80	80
Selectivity	dB/Ch±2	30	30
Consumption	mA	100 (24 VDC): power supply included	
Dimensions	mm	185 x 144 x 71	



# Profilers

## Profiler accessories

### Control Unit

NEW

The 6565 control unit is designed to control the Johansson products through the coax cable. Many products, like profilers, active combiners,... can be configured with this device. Thanks to a clear OLED display and easy rotary button, configuration is made very easy.



6565



#### Compatible products

- 6620/6621/6622/6623
- 6630/6631
- 6510
- 6550A/6555A/6556A/6557A

6565	Connectors	-	1 x F female (control port) 1 x 2,1 mm power jack
	Operating voltage	V	5/24
	Power supply	-	Delivered with 5V power adapter (can be powered through COAX)
	Consumption	mA	
	Operating temperature	°C	-5 to +50
	Dimensions	mm	176 x 83 x 43

schema

## Ethernet to coax adapter

**NEW**

The Ethernet to coax adapter allows coaxial devices to be configured through Ethernet. This adapter is inserted in the coax network. Data is transmitted between the Ethernet connection and the coaxial network. The adapter can be installed temporarily (just for configuration) or permanently (ideal for continuous monitoring and remote accessing the device). Configuration is done with the Universal User Interface.

Delivered with



6564

Compatible products:

- ▶ 6620/6621/6622/6623/6630/6631
- ▶ 6510A
- ▶ 6520
- ▶ 6550A/6555A/6556A/6557A

6564	Connectors	-	2 x F female (RF input/RF output) 1 x RJ-45 control port 1 x 2,1 mm power jack
	Operating voltage	V	5/24
	Power supply	-	Delivered with 5V power adapter (can be powered through COAX)
	Consumption	mA	
	Operating temperature	°C	-5 to +50
	Dimensions	mm	142 x 71 x 37

## Memory-stick

- ▶ Compatible with:
  - ▶ 6600/6601/6602/6603/6605/6606/6607
  - ▶ 6610/6611
- ▶ 16 memory positions

6604



6604	Memory capacity	16 memory slots
	Memory type	EEPROM
	Connectors	DSUB9 Male/Female
	LED	3 color status indication LED
	Dimensions	78 x 41 x 25 mm

# Configuration and management software

- ▶ The new Universal User Interface software from Johansson...  
**Be in the middle of your installations!**



**INDEX** | Configuration and management software

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# Configuration and management software

## Universal User Interface (UUI) | Overview

The Universal User Interface (UUI) is the newest configuration and management software of Johansson. This software platform enables the user to manage all programmable Johansson products with the same software! Imagine controlling a profiler with the same application as a digital headend... With the UUI, the sky is the limit!

- ▶ nice graphical user interface
- ▶ only 1 software platform needed to manage all product families
- ▶ extended system overview
- ▶ online synchronization keeps you always up to date
- ▶ location awareness helps you managing different installations



# Configuration and management software



Universal User Interface (UUI) | Extensive graphical user interface

We were wondering, why does configuration software need to be so rudimentary and boring? Why do we all love our tablet PC's and smartphones, but don't care about the software we use every day?

Because the UUI focusses on ease of use, the interface was one of the key elements throughout the design. We believe this is an essential part of the platform, making it very intuitive to use. With the UUI, we have taken the graphics to a higher level, and this makes the software very enjoyable to use. Another key aspect for the user is speed. We recognize this can make or break an application. A slow application can never be a good one, even if the functionality is great. Thanks to the very efficient design of the UUI, speed is no longer an issue!



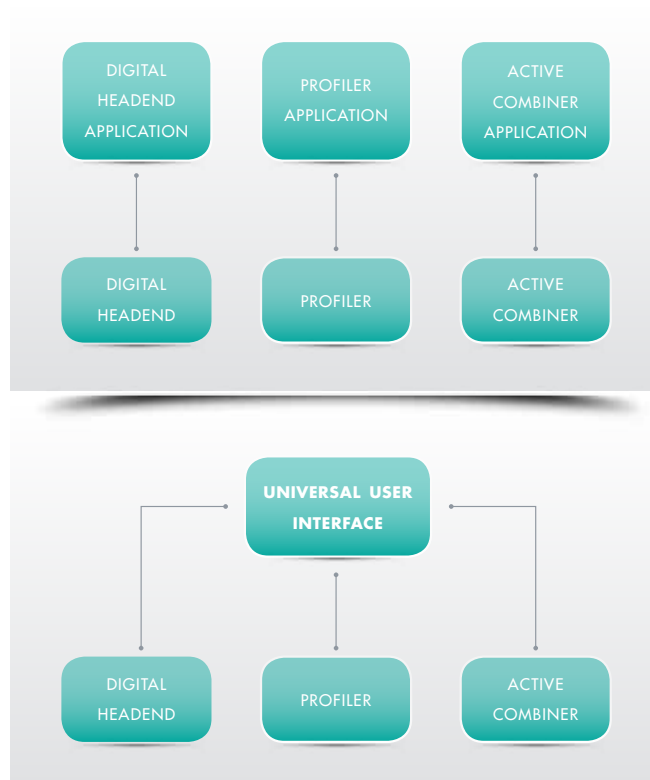
# Configuration and management software

## Universal User Interface (UUI) | A real platform

The UUI is so much more than just a configuration tool... it's really a software platform!

The difference between a tool and a platform might be confusing, but let's put it this way: a platform is a central element that enables application software to run, while a tool is just dedicated software for one specific application. Compare it to an operating system: without operating system, every application should be written from scratch, and is only compatible with one set of hardware. The operating system is the central element that makes the application software independent of the exact hardware, which is very comparable to what our UUI is doing!

The UUI will thus be the central element to link all Johansson products into one giant product family, independent of the exact function of the device! To support a new product, you only need the correct plugin, instead of a whole new application. And that is what makes the UUI so different from all other software known in our business!





# Configuration and management software



## Universal User Interface (UUI) | A real platform

In the past, one application was needed for every product group. Now however, all configuration can be done with the same software platform! You might wonder what the advantage is for you?

- ▶ easy to manage: No need to install software every time new hardware is available
- ▶ save time: Don't waste time switching from one program to another to configure one system
- ▶ cost efficient: Only buy one software platform
- ▶ future proof: the platform is continuously updated via the Internet, and every time a new product is designed, a new plugin is being released to make it compatible with the UUI platform. If wanted, a new plugin can even be installed on your system without intervention!

## Compatible devices

- ▶ **Profiler devices:**
  - ▶ 6620/6621/6622/6623/6630/6631
  - ▶ 6510
  - ▶ 6520
  - ▶ 6550A/6555A/6556A/6557A
  - ▶ 6564
  - ▶ 6565
- ▶ **Digital Modular Headends:**
  - ▶ 5202/5203/5210/5211/5212/5213/5230
  - ▶ 5302/5303/5330
  - ▶ 5352/5353/5380
- ▶ **Digital Compact Headends:**
  - ▶ 8500D
  - ▶ 8550D
  - ▶ 8530/8530UK
- ▶ ...

## Universal User Interface (UUI) | Extended system overview

From now on, a system is more than just a couple of products belonging to the same product group!

We redefine the word **system** as being all products belonging to a specific installation, no matter what kind of products this might be. The UUI is the first platform to enable real system overview. This means you can even combine a Profiler together with a Digital Modular Headend module, and manage overlapping functionality of such devices in the same screen! Just to give an idea: wouldn't it be interesting to see the UHF channels used by a Profiler, together with those used by a Digital Modulator? Two totally different products, but with some overlapping functionality, and often used in the same system.

System overview makes your life so much easier, by gathering all necessary information and showing it to you in a very easy and intuitive way. This enables you to have an overview of your whole system, even if it is a very complex one. In the past, you needed several different applications or hardware devices to configure such a system!

## Configuration and management software

### Universal User Interface (UUI) | Online synchronization

With the UUI, we focused on ease of use. Therefore we introduced the concept of an online platform that keeps your system up to date!

Every time your computer has access to the Internet, the software checks if any updates are available for your devices. Not only the software itself is held up to date, also the firmware of your devices, and user manuals are automatically updated. This means it's no longer your concern to keep your devices up to date. When the PC with the UUI is connected to the device, firmware upgrades will be performed automatically. Of course, the software keeps you informed of which updates are available, and gives you a possibility of ignoring them. And don't worry, from now on, you will always have the latest user manuals and datasheets on your PC, so searching the Internet to find new documents is no longer one of your tasks!

**Tekening maken die schematisch het concept van online platform voorstelt (Kris, Frederik) ½ pagina reserveren**

### Universal User Interface (UUI) | Location awareness

You are no longer the only person to have an overview of your different installations!

The UUI introduces the concept of location awareness. This means that every time you setup a complete new installation, a new location is created. All your locations are stored on your PC, so you can check them at any time. For each location, extra info can be written down in a notepad, and pictures can be added.

# Configuration and management software



## Universal User Interface (UUI) | Profiler plugin

The new profiler range is fully compatible with the UUI. Because these devices don't have an Ethernet port, they are controlled through an Ethernet to coax bridge (ref. 6564). This device transforms the Ethernet commands to FSK commands to be sent over the coaxial bus. This ingenious solution allows to control a Profiler product from anywhere in the building where you have access to the network!

### The Ethernet to coax device is delivered with a UUI license to control all profiler devices:

- ▶ 6620/6621/6622/6623/6630/6631
- ▶ 6510
- ▶ 6520
- ▶ 6550A/6555A/6556A/6557A
- ▶ 6564
- ▶ 6565

Schema van een coaxial bus met daarop bv een profiler (6620) met 2 x 6520 en een PC met UUI via E2C: ½ pagina

# Configuration and management software

## Universal User Interface (UI) | Profiler plugin

Thanks to the enhanced graphical interface, configuration is made very easy and enjoyable. Because the new Profilers are becoming quite complex devices with a lot of functionality, we designed an interactive block diagram, showing you the key aspects of the device. This gives you an overview of the state of the device: Which filters are enabled, how are the filters connected to the inputs, what inputs have DC power,...

Another very interesting feature is the channel overview of your filters. By using drag and drop, you can move filters to the frequency of interest, change the bandwidth, adapt the gain,... The UI will mark overlapping filters in red, so you can actually see the problems in the blink of an eye.

### Some of the features offered by the Profiler plugin:

- ▶ switch between diagram view and chart view to allow for very fast configuration of a Profiler
- ▶ configure the filters by using drag&drop
- ▶ automatic and interactive AGC functionality
- ▶ import/export of the device settings
- ▶ alarm monitoring



# Configuration and management software



## Universal User Interface (UUI) | Digital Modular Headend plugin

The new Digital Modular Headends and Digital Compact Headends are all equipped with an Ethernet control port. The DMH plugin for the UUI allows you to program all modules in a very graphical and intuitive way.

### ▶ Digital Modular Headends

- ▶ 5202/5203/5210/5211/5212/5213/5230
- ▶ 5302/5303/5330
- ▶ 5352/5353/5380

### ▶ Digital Compact Headends

- ▶ 8500D
- ▶ 8550D
- ▶ 8530/8530UK

# Distribution amplifiers

- 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) 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!



# INDEX | DISTRIBUTION AMPLIFIERS

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# Distribution amplifiers

## Terrestrial distribution amplifiers

**NEW**

The new distribution amplifiers from Johansson set the new standard! The amplifiers are fully LTE-ready and have a high gain, ensuring a perfect signal quality throughout the building. Thanks to the new technologies used, the amplifiers are far more efficient than their predecessors.



**HIGH EFFICIENCY**

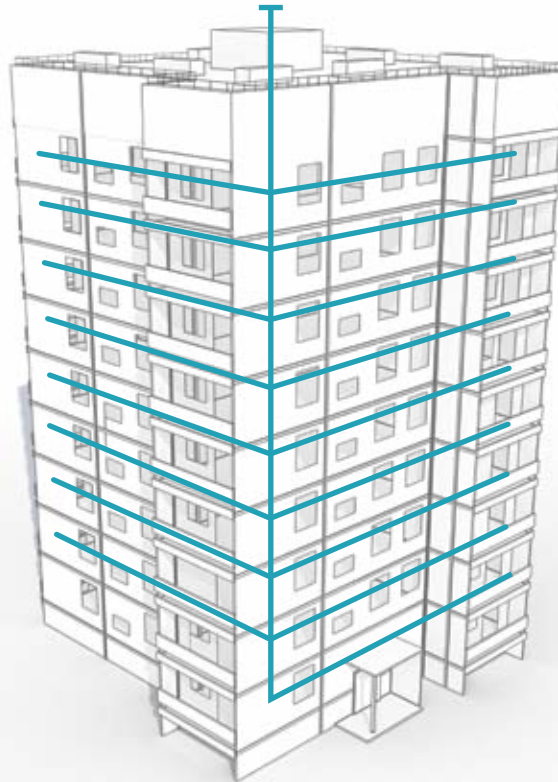
7773 | 7774 | 7775

- ▶ 3/4 inputs
- ▶ VHF-UHF input with return path (ref. 7774, 7775)
- ▶ split-band amplifiers with interstage attenuators and dynamic range of 30 dB
- ▶ high gain (up to 40 dB), high output power (>122 dBμV)
- ▶ slope adjustment on VHF-UHF and UHF inputs (ref. 7774, 7775)
- ▶ high input power: up to 110 dBμV (saturation of input virtually impossible)
- ▶ 5/12 VDC switchable remote voltage to power a preamplifier
- ▶ thanks to the new technology used, the efficiency of the amplifiers is 400% compared to older amplifiers!
- ▶ green solution: 5W for high power model / <3W for mid and low-power models
- ▶ zamak diecast housing
- ▶ detachable power supply included
- ▶ -30 dB test output



		7773	7774	7775
Inputs	-	FM BIII/DAB UHF	FM BIII/DAB VHF-UHF UHF	FM BIII/DAB VHF-UHF UHF
Frequency range	MHz	FM: 88-108 BIII/DAB: 174-240 UHF: 470-790	FM: 88-108 BIII/DAB: 174-240 UHF: 470-790 VHF-UHF: 5-1000	FM: 88-108 BIII/DAB: 174-240 UHF: 470-790 VHF-UHF: 5-1000
Gain	dB	FM: 6 to 26 BIII/DAB: 6 to 26 UHF: 20 to 40	FM: -12 to 20 BIII/DAB: -12 to 20 VHF-UHF: -4 to 26 UHF: -4 to 26	FM: 2 to 34 BIII/DAB: 2 to 34 VHF-UHF: 10 to 40 UHF: 2 to 40
Return path gain	dB	-	-2	-2
Slope adjustment	dB	-	VHF-UHF: -18 to -8 UHF: -6 to -2	VHF-UHF: -18 to -8 UHF: -6 to -2
Max. input power	dBμV	95	110	110
Max. output power	dBμV	112	116	>121
Noise figure	dB	FM: 9 BIII/DAB: 9 UHF: 6	FM: 8 BIII/DAB: 7 VHF-UHF: 6,5 UHF: 5	FM: 8 BIII/DAB: 7 VHF-UHF: 6,5 UHF: 5
Return loss	dB	>10	>10	>10
Remote power	-	UHF: 5 VDC (200 mA)/12 VDC (100 mA)	BIII/DAB: 5 VDC (200 mA)/12 VDC (100 mA) UHF: 5 VDC (200 mA)/12 VDC (100 mA)	BIII/DAB: 5 VDC (200 mA)/12 VDC (100 mA) UHF: 5 VDC (200 mA)/12 VDC (100 mA)
Supply voltage	VAC	200-264	200-264	200-264
Power consumption	W	10	10	10
Dimensions	mm			





# Distribution amplifiers

## Wideband indoor amplifier

7720

- ▶ 1 wideband input: 47-862 MHz (VHF-UHF)
- ▶ 2 outputs
- ▶ adjustable gain: 13-28 dB
- ▶ power led indicator
- ▶ wall mounting with 2 supplied screws



7720

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

## VHF-UHF indoor amplifier

7722

- ▶ 1 input: 40-300 MHz + 470-862 MHz
- ▶ 2 outputs
- ▶ adjustable VHF gain: 8-28 dB
- ▶ adjustable UHF gain: 15-30 dB
- ▶ power led indicator



7722

Frequency range	MHz	40-300 + 470-862
Adjustable gain	dB	VHF: 8-28/UHF: 15-30
Noise figure	dB	4,0
Max. output level DIN45004B	dBμV	107
Return loss (input/output)	dB	10
Isolation between outputs	dB	15
Remote power	-	no
Power	-	230V~/6,5VA
Dimensions	mm	102 x 76 x 54

# Distribution amplifiers



UHF preamplifier KIT

NEW



KIT 7327 | 2425

- ▶ 1 input/1 output
- ▶ LTE (4G) rejection
- ▶ low-noise
- ▶ 15 dB gain
- ▶ low power consumption: only 15 mA
- ▶ power indication LED
- ▶ 5-24 VDC operating voltage
  
- ▶ 5 V high efficiency power supply
- ▶ power LED
- ▶ wall or DIN-rail mountable

7327?



7327		
Frequency range	MHz	470-790
Gain	dB	15
Noise figure	dB	3,0
Max. input level	dBµV	88,0
Max. output level	dBµV	103
Power supply	VDC	5-24
Consumption	mA	15
Dimensions	mm	105 x 105 x 37

2425		
Outputs	-	1
Insertion loss	dB	1
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 1,3 W
DC output voltage	VDC	5
Output current	mA	25,0
Dimensions	mm	110 x 78 x 41

# Distribution amplifiers

UHF preamplifier KIT (USB power supply)

NEW



KIT 7328 | 2426

- ▶ 1 input/1 output
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ 15-35 dB adjustable gain
- ▶ power indication LED
- ▶ 5-24 VDC operating voltage
- ▶ 5 V USB powered high efficiency power supply
- ▶ power LED
- ▶ wall mountable

7328?



7328		
Frequency range	MHz	470-790
Gain	dB	15-35
Noise figure	dB	2,0
Max. input level	dBμV	80,0
Max. output level	dBμV	105
Power supply	VDC	5-24
Consumption	mA	50
Dimensions	mm	105 x 105 x 37

2426		
Outputs	-	1
Insertion loss	dB	1
DC input voltage (USB)	VDC	5
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 78 x 41

# Distribution amplifiers

**J**ohansson

UHF preamplifier KIT

NEW



KIT 7328 | 2435

- ▶ 1 input/1 output
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ 15-35 dB adjustable gain
- ▶ power indication LED
- ▶ 5-24 VDC operating voltage
- ▶ 5 V high-efficiency power supply
- ▶ short-circuit protection
- ▶ 2 outputs
- ▶ power LED
- ▶ wall or DIN-rail mountable

7328?



7328		
Frequency range	MHz	470-790
Gain	dB	15-35
Noise figure	dB	2,0
Max. input level	dBμV	80,0
Max. output level	dBμV	105
Power supply	VDC	5-24
Consumption	mA	50
Dimensions	mm	105 x 105 x 37

2435		
Outputs	-	2
Insertion loss	dB	4,0
Isolation between outputs	dB	10,0
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 4,8 W
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 94 x 41

# Distribution amplifiers

UHF/VHF bypass preamplifier KIT

NEW



KIT 7428 | 2435

- ▶ 1 x VHF bypass input/1 x UHF input
- ▶ 1 wideband output
- ▶ up to 105 dBμV output power
- ▶ 15-35 dB adjustable gain on UHF
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ power indication LED
- ▶ DC power pass
- ▶ 5-24 VDC operating voltage

7428

- ▶ 5 V high-efficiency power supply
- ▶ short-circuit protection
- ▶ 2 outputs
- ▶ power LED
- ▶ wall or DIN-rail mountable



7428

Inputs	-	VHF bypass	UHF
Frequency range	MHz	174-240	470-790
Gain	dB	-2	10-25
Noise figure	dB		2,0
Max. input level	dBμV		80,0
Max. output level	dBμV	105	
Power supply	VDC	5-24	
Consumption	mA	50	
Dimensions	mm	105 x 105 x 37	

2435

Outputs	-	2
Insertion loss	dB	4,0
Isolation between outputs	dB	10,0
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 4,8 W
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 94 x 41

# Distribution amplifiers

UHF/VHF preamplifier KIT

NEW



KIT 7429 | 2435

- ▶ 1 x VHF or VHF-UHF (switchable) input/1 x UHF input
- ▶ 1 wideband output
- ▶ up to 105 dBμV output power
- ▶ 15-35 dB adjustable gain on VHF or VHF-UHF
- ▶ 15-35 dB adjustable gain on UHF
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ power indication LED
- ▶ DC power pass
- ▶ 5-24 VDC operating voltage
  
- ▶ 5 V high-efficiency power supply
- ▶ short-circuit protection
- ▶ 2 outputs
- ▶ power LED
- ▶ wall or DIN-rail mountable

7429



7429			
Inputs	-	VHF/VHF-UHF	UHF
Frequency range	MHz	174-240/174-790	470-790
Gain	dB	10-25	10-25
Noise figure	dB		2,0
Max. input level	dBμV		80,0
Max. output level	dBμV	105	
Power supply	VDC	5-24	
Consumption	mA	50	
Dimensions	mm	105 x 105 x 37	

2435		
Outputs	-	2
Insertion loss	dB	4,0
Isolation between outputs	dB	10,0
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 4,8 W
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 94 x 41

# Distribution amplifiers

## UHF preamplifier

NEW



7327

- ▶ 1 input/1 output
- ▶ LTE (4G) rejection
- ▶ low-noise
- ▶ 15 dB gain
- ▶ low power consumption: only 15 mA
- ▶ power indication LED
- ▶ 5-24 VDC operating voltage

7327

7327		
Frequency range	MHz	470-790
Gain	dB	15
Noise figure	dB	3,0
Max. input level	dBμV	88,0
Max. output level	dBμV	103
Power supply	VDC	5-24
Consumption	mA	15
Dimensions	mm	105 x 105 x 37

## UHF preamplifier

NEW



7328

- ▶ 1 input/1 output
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ 15-35 dB adjustable gain
- ▶ power indication LED
- ▶ 5-24 VDC operating voltage

7328

7328		
Frequency range	MHz	470-790
Gain	dB	15-35
Noise figure	dB	2,0
Max. input level	dBμV	80,0
Max. output level	dBμV	105
Power supply	VDC	5-24
Consumption	mA	50
Dimensions	mm	105 x 105 x 37



# Distribution amplifiers



UHF/VHF-UHF + UHF preamplifier

NEW



7428

- ▶ 1 x VHF bypass input/1 x UHF input
- ▶ 1 wideband output
- ▶ up to 105 dBμV output power
- ▶ 15-35 dB adjustable gain on UHF
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ power indication LED
- ▶ DC power pass
- ▶ 5-24 VDC operating voltage

7428

7428			
Inputs	-	VHF bypass	UHF
Frequency range	MHz	174-240	470-790
Gain	dB	-2	10-25
Noise Figure	dB		2,0
Max. input level	dBμV		80,0
Max. Output level	dBμV	105	
Power supply	VDC	5-24	
Consumption	mA	50	
Dimensions	mm	105 x 105 x 37	

# Distribution amplifiers

UHF preamplifier with VHF bypass

NEW



7429

- ▶ 1 x VHF or VHF-UHF (switchable) input/1 x UHF input
- ▶ 1 wideband output
- ▶ up to 105 dBμV output power
- ▶ 15-35 dB adjustable gain on VHF or VHF-UHF
- ▶ 15-35 dB adjustable gain on UHF
- ▶ LTE (4G) + GSM rejection
- ▶ low-noise
- ▶ power indication LED
- ▶ DC power pass
- ▶ 5-24 VDC operating voltage

7429

7429

7429			
Inputs	-	VHF/VHF-UHF	UHF
Frequency range	MHz	174-240/174-790	470-790
Gain	dB	10-25	10-25
Noise Figure	dB		2,0
Max. input level	dBμV		80,0
Max. Output level	dBμV	105	
Power supply	VDC	5-24	
Consumption	mA	50	
Dimensions	mm	105 x 105 x 37	

# Distribution amplifiers



## 5V Power Supply (High Power)

- ▶ 5 V high-efficiency power supply
- ▶ output current: 300 mA
- ▶ short-circuit protection
- ▶ 2 outputs
- ▶ power LED
- ▶ wall or DIN-rail mountable



2435		
Outputs	-	2
Insertion loss	dB	4,0
Isolation between outputs	dB	10,0
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 4,8 W
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 94 x 41

# Distribution amplifiers

## 5V Power Supply

2425

- ▶ 5 V high-efficiency power supply
- ▶ output current: 25 mA
- ▶ 1 output
- ▶ power LED
- ▶ wall or DIN-rail mountable
- ▶ short-circuit protected



2425		
Outputs	-	1
Insertion loss	dB	1
AC input voltage/Frequency/Power	-	230 V~ / 50 Hz / 1,3 W
DC output voltage	VDC	5
Output current	mA	25,0
Dimensions	mm	110 x 78 x 41

## USB Power Supply

NEW

Use the USB port of your TV, Set-top box, DVD player,... to power a preamplifier.

This is a very power-efficient solution, which guarantees the preamplifier is switched-on, only when you need it! And of course, you don't need another power plug...



- ▶ green solution: power-down your preamplifier, by switching-off your TV
- ▶ 1 output
- ▶ output current: up to 300 mA
- ▶ power indication LED
- ▶ wall or DIN-rail mountable
- ▶ short-circuit protected

2426



2426		
Outputs	-	1
Insertion loss	dB	1
DC input voltage (USB)	VDC	5
DC output voltage	VDC	5
Output current	mA	300,0
Dimensions	mm	110 x 78 x 41



# 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!

# INDEX | DISTRIBUTION ACCESSORIES

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# Distribution accessories

Filters | LTE + GSM filter

**NEW**

Long Term Evolution (LTE) is a consequence of the digitization of the TV-signals. Digital signals offer a great bandwidth-advantage, which will be used for next-generation telecommunication applications (4G). This implies the UHF channels 61-69 will no longer be used for TV-purposes, and have to be filtered-out carefully to avoid interference! Our LTE-ready products offer strong filtering capabilities for the UHF channels 61-69 and the GSM-band.

Filters | LTE + GSM filter



6022

- ▶ >15 dB LTE rejection
- ▶ wall or mast mountable with strap
- ▶ indoor/outdoor use



Filters | LTE filter

**NEW**



6023

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



		6022	6023
Frequency range	MHz	5-790	5-790
Insertion loss	dB	1	1
LTE rejection 790-862 MHz (UHF C61-69)	dB	15-30	30 dB
GSM rejection 880-960 MHz	dB	60	25
DC power pass	mA	500	500
Connectors	-	2 x F female	2 x F female
Mounting	-	Wall/Mast	Indoor Use
Dimensions	mm	112 x 98 x 56	72 x 22 x 17



# Distribution accessories



Filters | LTE filter

NEW



- ▶ 25 dB LTE rejection
- ▶ indoor use (direct mounting behind TV)
- ▶ IEC connectors

6030



6030		
Frequency range	MHz	5-790
Insertion Loss	dB	1
LTE Rejection 790-862 MHz (UHF C61-69)	dB	25
DC power pass	mA	500
Connectors	-	IEC
Mounting	-	Indoor Use
Dimensions	mm	67 x 33 x 22

Filters | UHF filter

1109



- ▶ Tetra filter
- ▶ wall or mast mountable with strap
- ▶ outdoor use

1109		
Channels	C	21-68
Bandwidth	MHz	471-854
Insertion loss	dB	1,5
Attenuation channel	dB	25 min
Return loss	dB	10 min
Dimensions	mm	112x98x56

# Distribution accessories

Taps | Wideband indoor taps 5-2300 MHz



- ▶ 1, 2, 4, 6, 8-way wideband taps
- ▶ nickel plated zinc diecast housing
- ▶ "F"-type connectors
- ▶ input/output DC power pass

		4510	4511	4512	4513
Frequency	MHz	5-2300	5-2300	5-2300	5-2300
Tap loss	dB	10 ± 1	15 ± 1	20 ± 1	25 ± 1
Through loss	dB	< 3,5	< 3	< 3	< 2,5
Out/Tap isolation	dB	> 20	> 20	> 25	> 30
Input return loss	dB	> 10	> 10	> 10	> 10
Tap return loss	dB	> 10	> 10	> 10	> 10
Output return loss	dB	> 10	> 10	> 10	> 10
Dimensions	mm	47x56x21			

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

# Distribution accessories



Taps | Wideband indoor taps 5-2300 MHz

		4540	4541	4542	4543	4544
Frequency	MHz	5-2300	5-2300	5-2300	5-2300	5-2300
Tap loss	dB	12 ± 1,5	15 ± 1,5	20 ± 1,5	25 ± 1,5	30 ± 1,5
Through loss	dB	< 5	< 3	< 3	< 3	< 3
Tap/Tap isolation	dB	> 20	> 20	> 20	> 20	> 20
Out/Tap isolation	dB	> 18	> 20	> 20	> 25	> 25
Input return loss	dB	> 10	> 10	> 10	> 10	> 10
Tap return loss	dB	> 10	> 10	> 10	> 10	> 10
Output return loss	dB	> 10	> 10	> 10	> 10	> 10
Dimensions	mm	56x73x19				

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

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

# Distribution accessories

Splitters | Wideband indoor splitters 5-2300 MHz



- ▶ 2, 3, 4, 6, 8-way wideband splitters
- ▶ low insertion loss
- ▶ nickel plated zinc diecast housing
- ▶ "F"-type connectors
- ▶ DC power pass on all ports (diode protection)

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

# Distribution accessories



Combiners | TV combiners

Distribution accessories

- ▶ low-loss
- ▶ indoor/outdoor use



		1269	1281	1200A
Inputs (DC power pass=*)	MHz	VHF: 40-230 * UHF: 470-862 *	UHF1: 470-862 * UHF2: 470-862 *	FM: 88-108 * VHF-UHF: 40-68 + 175-862 (rej. FM) *
Insertion loss	dB	VHF: 0,5 UHF: 1,0	UHF1: 4,5 UHF2: 4,5	FM: 1,0 VHF-UHF: 1,0 (FM rejection >20)
Dimensions	mm	112 x 98 x 56		

		1352	1353
Inputs (DC power pass=*)	MHz	VHF: 40-230 * UHF1: 470-862 * UHF2: 470-862 *	Bi-FM: 40-108 * BIII: 170-230 * UHF: 470-862
Insertion loss	MHz	VHF: 0,5 UHF1: 4,5 UHF2: 4,5	Bi-FM: 1,0 BIII: 1,0 UHF: 2,0
Dimensions	mm	112 x 98 x 56	

		1464
Inputs (DC power pass=*)	MHz	Bi-FM: 40-108 * BIII: 170-230 * UHF1: 470-862 * UHF2: 470-862 *
Insertion loss	dB	Bi-FM: 0,5 BIII: 0,5 UHF1: 3,5 UHF2: 3,5
Dimensions	mm	112 x 98 x 56

# Distribution accessories

## DiSEqC switches

9232



9234



9232

9234

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

## Twin DiSEqC Switch 5/2

9920



- switch for 2 TWIN LNB's combined with terrestrial

9920

		9920
Frequency range	MHz	Sat.: 950-2150 - Terr.: 5-862
Insertion loss	dB	Sat.: 4 max. - Terr.: 8 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	122 x 98 x 56

# Distribution accessories



Combiners | TV-SAT combiners

9506

- ▶ indoor combiner
- ▶ DC power pass



9501



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

Line amplifiers | DTT line amplifier

7317



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

		7317
Band	dB	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

Line amplifiers | Satellite line amplifiers

9604



- ▶ sloped gain for compensating coaxial cable losses
- ▶ available in 3 versions with different bandwidth
  - ▶ 40-2150 MHz
  - ▶ 950-2150 MHz
  - ▶ 40-3550 MHz
 (in combination with stacker-destacker)

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

# Distribution accessories

## Others | Attenuator

9609



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

9609

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

## Others | 22 kHz tone blocking filter

9613



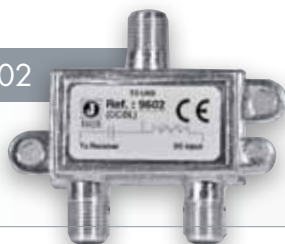
- ▶ small housing
- ▶ low insertion loss

9613

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

## Others | DC block - DC inserter

9602



- ▶ block DC voltage to receiver
- ▶ pass DC voltage to LNB

9602

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



# Distribution accessories



Others | DC block

9631



- ▶ block DC voltage from input to output

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

Others | F-F galvanic isolator

9620

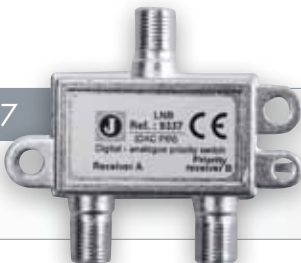


- ▶ high galvanic isolation of both center and shield
- ▶ small design

		9609
Frequency range	MHz	950-2150
Insertion loss	dB	1
DC loss	V	0,5 typ.
Dimensions	mm	77 x 22 x 17

Others | Priority Switch

9337



- ▶ priority switching
- ▶ signal by pass

		9337
Frequency range:	MHz	950 - 2150
Insertion loss	dB	< 3,5
Isolation	dB	> 15
Signal by pass	-	22 KHz tone and 13/18V power
Switch control	-	Coaxial voltage 0V/13-18V of the priority satellite receiver Power > 10.0V = ON/<7.0 = OFF
DC loss	V	1.0 max.
Dimensions	mm	61 x 51 x 16

# Multiswitches & OLT

- The well-known Profilers are a range of programmable filter-amplifiers. The signals coming from multiple antennas can be combined, filtered, amplified, to offer the best possible signal for distribution of TV throughout the building. The profilers are very flexible and can be configured to your specific needs. We offer a broad range of profiler products, to fulfill your specific needs.

Mooi tekstje schrijven



# INDEX | MULTISWITCHES & OLT

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# Multiswitches & OLT

## OLT Multiswitch

**NEW**

The new range of OLT multiswitches has arrived! In most installations, the cost of coaxial cables can take big proportions. By using the new range of Johansson OLT multiswitches, this cost can be divided by 3!

The devices have 4 satellite inputs and an LTE-protected passive terrestrial input. All outputs can operate in OLT mode or in legacy mode. Thanks to the legacy support, the multiswitch can be used even if no SCR set-top boxes are installed yet, making it a very flexible solution.


**9742**

**9740**


- ▶ 4 satellite inputs and LTE protected passive terrestrial input
- ▶ ref. 9740: 4 outputs (up to 12 tuners)
- ▶ ref. 9742: 8 outputs (up to 24 tuners)
- ▶ wide range of satellite input levels (49 to 110 dBμV) ensures robust operation
- ▶ high output power (AGC controlled)
- ▶ supports auto-tuning of set-top boxes
- ▶ low trunk-loss (ideal for cascading several multiswitches)
- ▶ multistandard support: EN50494/BSkyB/Legacy (backwards compatible with old set-top boxes)
- ▶ DC input for LNB powering when no power inserter (9930) is used

		9740	9742
Inputs	-	1 x Terrestrial 4 x Satellite	
Outputs	-	4 outputs (up to 12 tuners)	8 outputs (up to 24 tuners)
Frequency	MHz	Ter.: 5-790 (LTE protected) SAT: 950-2150	
Return path	MHz	5-65	
SCR channels	MHz	1280/1382/1484	
Supported standards	-	EN50494 / BSkyB / Legacy	
Max. input level Terr.	dBμV	83	
Max. input level SAT	dBμV	109	
Max. output level Terr.	dBμV	80	
Max. output level SAT	dBμV	SCR mode: 90 Legacy mode: 80	
Trunk loss	dB	Ter.: 5 SAT: 2,5	
Return loss in/out	dB	>10	
Tap loss (Terrestrial)	dB	< 3	
LNB remote current	A	1	
Operating temperature	°C	-20 to +50	
Dimensions	mm	122 x 158 x 51	202 x 158 x 51



## Smart Splitter

Some set-top boxes use a higher voltage to indicate to the multiswitch they want to communicate. In such case, only 1 set-top box is able to communicate at a time. A smart splitter captures the commands of the different set-top boxes and serializes them to avoid a collision.



4603



- ▶ indoor housing
- ▶ 3-way
- ▶ no power adapter needed
- ▶ buffers and sends out the different command signals

		4603
Way	-	3
Frequency	Mhz	5-2150
Insertion Loss +/- 2	dB	10
Return loss in/out	dB	> 10
DC power pass	mA	500 max.
Input voltage	VDC	10 min. / 20 max.
Message buffer	-	3 / receiver port
Dimensions	mm	40 x 68 x 140

# Multiswitches & OLT

Multi Band Converter (Stacker-DeSTACKer)

**NEW**

9645 KIT

9645 KIT

## Converter

Inputs	MHz	1 X 5-2150 1 x 950-2150
Output	MHz	5-3650 MHz with "F" High Quality connector
Insertion loss/gain	dB	
Max. Input level	dBµV	
Consumption	mA	
Dimensions	mm	

## Customer Device

Input	-	
Outputs	MHz	
Insertion loss/gain	-	
Consumption	mA	
Power adapter	-	
Dimensions	mm	

# Multiswitches & OLT



## Multi Band Converter (Stacker-Destacker)

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

9640 KIT

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



9640 KIT | 9640 KIT UK

Converter		
Inputs	MHz	1 X 5-2150 1 x 950-2150
Output	MHz	5-3550 MHz with "F" High Quality connector (rated to operate on the frequency range up to 3,6 GHz)
Insertion loss/gain	dB	Terr.: - 1/Sat.: -4 Converted SAT.: + 7
Max. Input level	dBµV	78
Consumption	mA	85 max.
Dimensions	mm	201 x 87 x 42
Customer Device		
Input	-	5-3550 MHz with "F" High Quality connector (rated to operate on the frequency range up to 3,6 GHz)
Outputs	MHz	1 x 5-2150 - 1 x 950-2150
Insertion loss/gain	-	Terr.: -1 dB/Sat.: -4 dB Converted SAT.: + 0 dB
Consumption	mA	60 max.
Power adapter	-	230-240 V ~/50 Hz/30 VA - 20 VDC output/1,0 A
Dimensions	mm	127 x 92 x 41
General specification	-	Operating system up to 70 m CT100 or 17 VAiC coaxial cable

# Multiswitches & OLT

## Transponder converter unit

This technology allows to transmit different user bands over one single cable drop. Each user band is dedicated to one receiver. The receiver which is tuned on its band, selects the program to be received by DiSEqC/CTM commands.

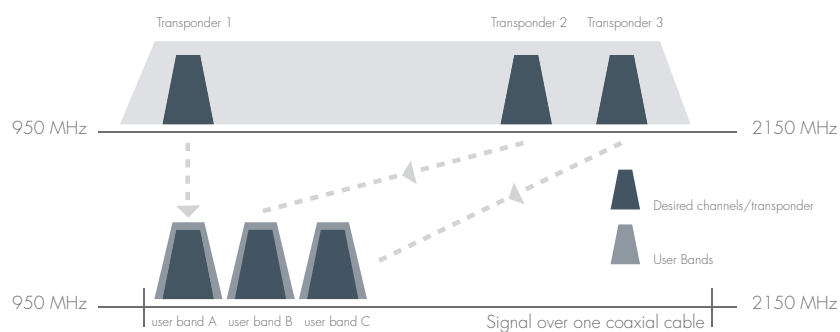


- ▶ 3 satellite inputs (for connection with universal LNB or multiswitch)
- ▶ 1 OLT output: 3 user bands
- ▶ compatible with unicable™, CSS™ and SCRT™
- ▶ delivered with power supply

9712A



9712A		
Inputs	-	3 x SAT
Frequency range	MHz	950-2150
Receiver Outputs	MHz	1 x 3 user bands Frequency: 1280/1382/1484
Gain/ Loss	dB	+ 15 with AGC
Max. Input level	dBm	- 30 (78 dBμV)
Output level	dBm	- 37 (71 dBμV)
Return Loss in/ Out/ Trunk	dB	> 10
DC power pass	-	13 V/18V/22 kHz
Isolation SAT / SAT	dB	> 26
Power adapter	-	230-240 VAC / 50 Hz / 30 VA Output: 20 VDC / 1.0 A (Jack Ø 2.1 mm)
Consumption	mA	150 (without powering LNB)
Connectors	-	4 x "F"
Dimensions	mm	104 x 102 x 51





# Multiswitches & OLT



## Power inserter

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)

9930



9930		
Inputs	-	4
Frequency range	MHz	5 - 2150
Insertion loss	dB	< 1,5
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

## Power supply



9933

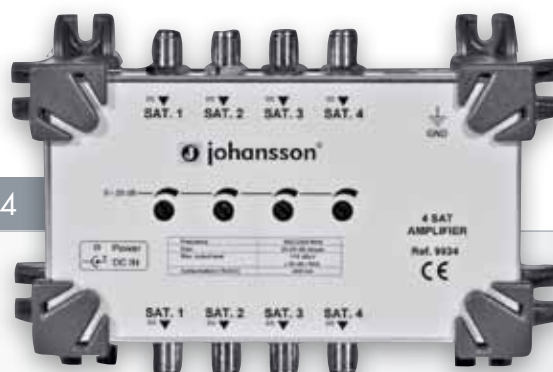
9933   9933UK		
AC input	-	230 V~ /50 Hz
DC output	VDC	15
Max. Output/ current	Amp	2.0
Connector	mm/female	Jack 2 , 1
Dimensions	mm	176 x 71 x 47

# Multiswitches & OLT

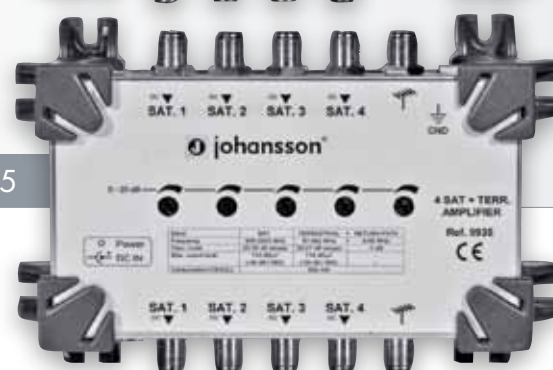
## Satellite IF amplifiers

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

9934



9935



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

## Satellite splitters



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

## Satellite taps



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