

# CHP – Compact High Performance Headends

## IPQAM

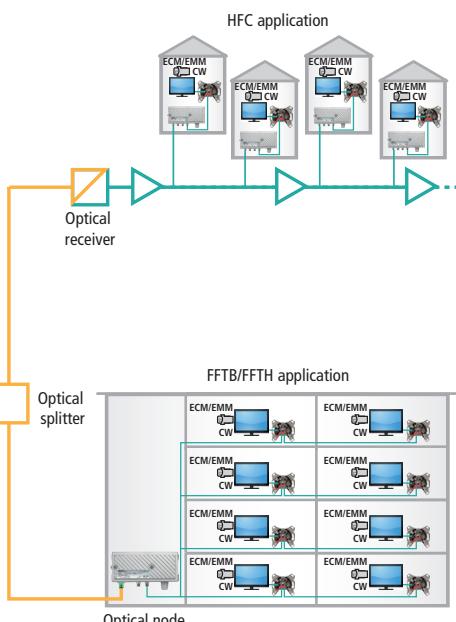
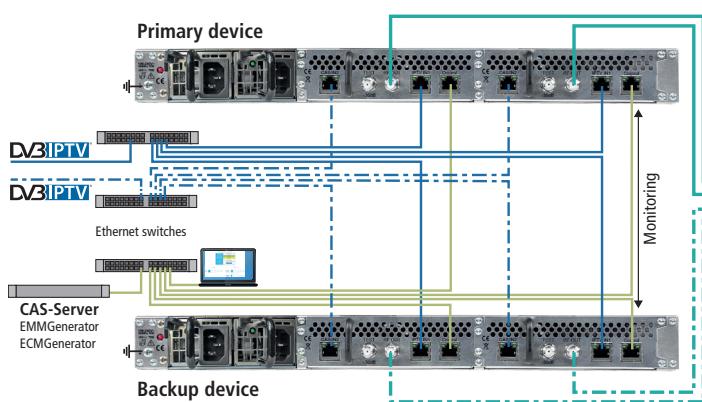
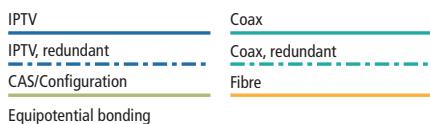
- ✓ Redundant IPTV inputs (900 Mbps)
- ✓ Supports SPTS and MPTS (also mixed)
- ✓ Re-Multiplexing
- ✓ PID filtering/ PID remapping
- ✓ Program duplication
- ✓ Output modulation DVB-C (J.83 Annex A/C) or DVB-T
- ✓ Web-based configuration
- ✓ Suitable for AXING SMARTPortal
- ✓ Supports SNMP
- ✓ 2 × redundant power supply units
- ✓ Device redundancy configurable\*
- ✓ OTA upgrade e.g. for Set Top Boxes possible
- ✓ Interface for CASimulcrypt Server\*

\* Software extension required



### Available devices:

MIE 8-00	Includes 1 module, transmodulates max. 512 input streams in 8 DVB-C or 6 DVB-T output channels.
MIE 16-00	Includes 1 module, transmodulates max. 512 input streams in 16 DVB-C or 12 DVB-T output channels.
MIE 32-00	Includes 2 modules, transmodulates max. 2 × 512 input streams in 2 × 16 DVB-C or 2 × 12 DVB-T output channels.
MIM 16-00	Extension module for MIE 8-00/16-00, for extension to 2 × 512 input streams and 2 × 16 DVB-C or 2 × 12 DVB-T output channels.
MIS 1-11	Software extension for MIE device redundancy
MKS 1-02	Software extension for CASimulcrypt
MIS 8-16	Software extension for MIE 8-00, from 8 to 16 x DVB-C or from 6 to 12 x DVB-T output channels.



AXING AG

Gewerbehaus Moskau

Phone +41 52 - 742 83 00

Fax +41 52 - 742 83 19

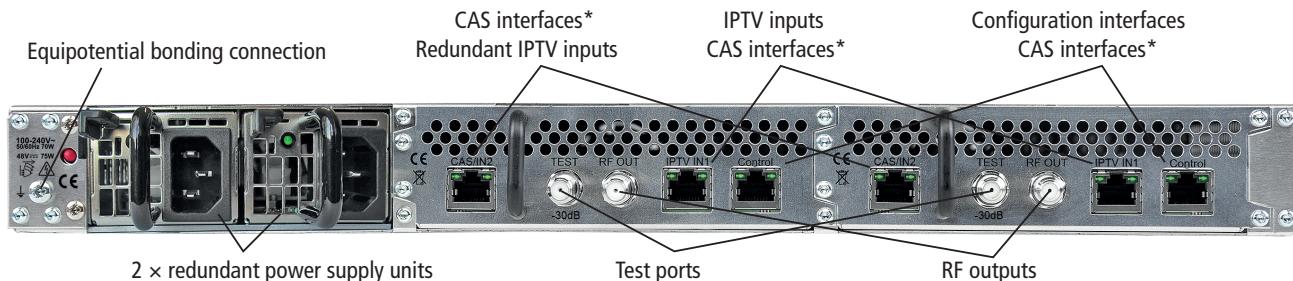
8262 Ramsen

info@axing.com

www.axing.com

# Technical data

## MIE 32-00 rear site



\* The ports CAS/IN2, IPTV IN1 and Control can be configured as the interface for the CAS server.

Type	MIE00800	MIE01600	MIE03200
<b>Input</b>			
Supported input transport streams	SPTS, MPTS (CBR/VBR)		
Max. number of input streams (out of SPTS or MPTS)	512	512	2 × 512
Supported protocols IPTV input	IP V4; UDP; RTP; IGMP v2, v3		
Total net data rate IPTV input	1 × 900 Mbps	1 × 900 Mbps	2 × 900 Mbps
<b>Transport streams</b>			
Modifiable program information	Program name, SID remapping, PID filtering, TSID, ONID		
PCR correction	automatic adaptive PCR-correction, <500 ns		
L C N	Yes		
NIT handling @ DVB-C	auto   manual   off		
EPG regeneration	Yes		
Scrambling	DVB-CSA		
<b>Output</b>			
Number of output channels	1 × 8 @ DVB-C 1 × 6 @ DVB-T	1 × 16 DVB-C 1 × 12 DVB-T	2 × 16 DVB-C 2 × 12 DVB-T
Output frequency range	109...1006 MHz @ DVB-C   109...862 MHz @ DVB-T		
Output channels adjustable	S2...K87 @ DVB-C   S2...K69 @ DVB-T		
Output channel bandwidth	7 MHz, 8 MHz		
Possible frequency shift	-4...+4 MHz (0.5 MHz steps)		
Output connector	1 × F-female	1 × F-female	2 × F-female
Output test port	1 × F-female (-30 dB)	1 × F-female (-30 dB)	2 × F-female (-30 dB)
Output impedance	75 Ω		
Output level adjustable	80...105 dBµV @ DVB-C   77...102 dBµV @ DVB-T		
<b>Output modulation</b>			
Output compliance	EN 50083-9   ETSI TS 101 154   ETSI EN300 429   ETSI EN 300 744   ITU-T J.83A/C		
Output modulation, modulation type	QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM64 @ DVB-T		
Supported output formats	MPEG-2/H.262, MPEG-4/H.264 and HEVC/H.265		
MER	≥ 40 dB @ DVB-C   ≥ 36 dB @ DVB-T		
BER	≥9x10 <sup>-9</sup>		
Roll off	15 %		
Shoulder attenuation	≥ 56 dB		
C/N	≥45 dB		
Reflection	>14 dB		
Output bit rate, max	50.87 Mbps @ DVB-C 31.668 Mbps @ DVB-T		
FFT	2k mode @ DVB-T		
FEC	1/2, 2/3, 3/4, 5/6, 7/8 @ DVB-T		
Output guard interval	1/4, 1/8, 1/16, 1/32 @ DVB-T		
Output symbol rate	1...7.5 MBauds/s		
<b>Interfaces</b>			
Data interface IPTV input	1 × RJ45, IEEE 802.3, 1000 Base-T (GigE)	1 × RJ45, IEEE 802.3, 1000 Base-T (GigE)	2 × RJ45, IEEE 802.3, 1000 Base-T (GigE)
CAS / redundant IPTV interface	1 × RJ45, IEEE 802.3, 1000 Base-T (GigE)	1 × RJ45, IEEE 802.3, 1000 Base-T (GigE)	2 × RJ45, IEEE 802.3, 1000 Base-T (GigE)
Configuration / CAS interface	1 × RJ-45, IEEE 802.3, 10/100 Base-T	1 × RJ-45, IEEE 802.3, 10/100 Base-T	2 × RJ-45, IEEE 802.3, 10/100 Base-T
Supported configuration protocols	HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal*		
Software control and upgrading	Via Remote Access		
<b>Common</b>			
Operation voltage	100...240 VAC/50...60 Hz   48 VDC		
Power consumption	30 W	30 W	60 W
Redundant power supply	2 × Hot pluggable		
Equipotential bonding connection	4 mm²		
Operating temperature range (acc. to EN 60065)	-10°C...+50°C		
Storage temperature range (acc. to EN 60065)	-20 °C...+80 °C		
Dimensions (W × H × D) appr.	480 × 43 × 275 mm		
Comments	* encrypted, cloud-based application for configuration, monitoring and maintenance		

### SMARTPortal advantages:

The AXING SMARTPortal allows to connect any headend device to a cloud-based portal. When connected the customer has access to any device via the internet. The connection is password-saved and scrambled. The system will give the customer error messages to a dedicated e-mail address. Error messages occur in the following cases:

- ✓ Processor temperature > 90 °C
- ✓ Airflow temperature > 50 °C
- ✓ Power supply failure/ Power supply temperature >85 °C
- ✓ Input stream overflow
- ✓ Modulator overflow
- ✓ RF output-level not according to settings