FMC01
FM MPX codec

MPX over IP

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FMC01 – FM MPX codec

FM MPX distribution

High quality multi-format audio de/en/transcoding

▶ High quality FM MPX distribution via IP (16 ... 24bit, 132 ... 192Khz)

Hardware

▶ Optional: Coder & decoder in the same equipment
▶ High end converter (ADC, DAC) for optimal quality
▶ Optional: 1pps input for SFN synchronization

Control

▶ Full online remote control of all parameters via IP
▶ Configuration via web user interface for easy setup
▶ Quick view status page for a fast overview
▶ SNMP v2c, relays, inputs

Codec

▶ 100% lossless audio encoding & decoding
▶ ProMPEG FEC (Practice #3 release 2) to reduce packet loss and burst errors
▶ Optional: Dual streaming

Monitoring

▶ Quality parameters via SNMP v2c and relay
▶ FM demodulation with L+R XLR and headphone output monitoring
▶ RDS monitoring and optional alarm control (PI, PS)

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Encoder inputs

FM MPX signal

Signal	FM MPX
Frequency response	20 Hz - 90 kHz: <0,05 dB
Input voltage range	0 ... 14 dBu
Connectors MPX IN	1x XLR, balanced, <20 Ω
	1x BNC, 75 Ω, unbalanced

Encoder outputs

Gigabit IP

Type	10/100/1000 Base-T
Data	MPEG TS or RAW Data via UDP, UDP/RTP, as Unicast or Multicast IGMPv2
	Optional: dual streaming
Connectors	RJ45

Audio

Volume	-32...+6 dB
Headphone	L/R, <10 Ω, 6.3 mm
Analogue	L/R, <20 Ω, balanced, XLR

Decoder inputs

Gigabit IP

Data	MPEG TS or RAW Data via UDP, UDP/RTP, as Unicast or Multicast IGMPv2
	Optional: dual streaming

Decoder outputs

FM MPX signal

Signal	FM MPX
Frequency response	20 Hz - 90 kHz: <0,05 dB
Stereo seperation	>55 dB
Harmonic distortion	<0,0025 dB
SNR (CCIR-weighted)	>75 dB
SNR (A-weighted)	>90 dB
Connectors MPX OUT	2x XLR, balanced, >10 kΩ
	2x BNC, 75 Ω, unbalanced

Audio

Volume	-32...+6 dB
Headphone	L/R, <10 Ω, 6,3 mm
Analogue	L/R, <20 Ω, balanced, XLR

Codec

Data

Type	100% Loss less audio encoding & decoding
Bit depth	16 - 24 bit
Sample rate	132 ... 192 KHz
Encoding type	PCM raw
FEC	ProMPEG FEC Practice #3 release 2
Bandwidth	2,364 Mbps up to 22,694 Mbps depending on configuration, ProMPEG FEC and dual streaming settings

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Technical details 2/2

Control & monitor

Ethernet

Data	Controlling and setup functions
Connector	RJ45
Type	Auto switching 10/100 BASE-T
Protocol	HTTP, SNMPv2c, SMTP, UDP, SNTP, TCP

Contact closure

Inputs	7 opto isolated inputs (excludes option: 24 relay contacts) 15 pole sub-D female
Outputs	12 floating relays (10x SPST, 2x SPDT) (for DC: max. 30 V, 1 A, 10 W) 26 pole sub-D male
Optional:	24 floating relays (excludes: 7 opto isolated inputs)
Serial Data	1x RS-232C (1 front) service
Connector	9 pole sub-D male
Transmission rate	1200 to 115200 baud, asynchronous

Front panel

LCDisplay	2x 40 characters
Jog wheel	Impulse, ENTER button
7 LEDs	Power, input, output, warning, status, encoder, decoder

FM & RDS

FM	Internal demodulation of MPX signal and output via XLR and headphone
RDS	Decoding and control of PI and PS on the web frontend, optional decoding of all data via RDS-LAB

General data

Power consumption	20 VA
Case dimensions	19", 1 HU, Depth: 310 mm, Width: 424 mm, Front panel: 484 mm
Weight	<4 kg
Housing	Steel plate (aluminum-zinc coated)
Operating temp. range	0...+45°C
Storage temp. range	-40...+70°C
Power supply	Internal, 90...260 V, 47...63 Hz
Languages	English

Datasheet version 10.09.2019
These data are subject to modifications and amendments. Errors excepted.

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