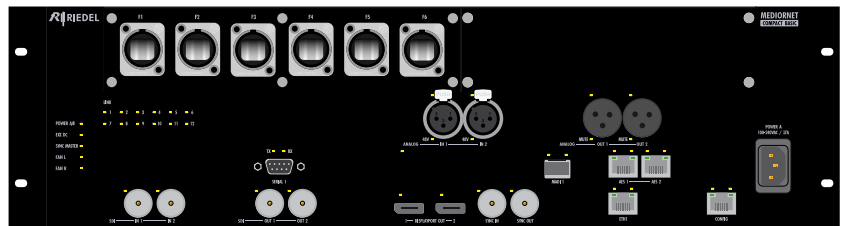


MediorNet MN-Compact BASIC

MediorNet Compact The 50G Media Distribution Network

The MediorNet Compact system comprises three device versions: Basic, Plus and Pro. All units are economic solutions for small to medium sized Media Network applications and are fully compatible to all MediorNet devices. In large Media Network applications MediorNet Compact devices are recommended as Satellite Stage Boxes.



Main System Characteristics

- Compact 3RU Design for rackmount and standalone applications
- Integrated Video, Audio and Data Router
- Slot for Option Boards
- Handles Multiple Redundant Sync References (Seamless Takeover)
- Built-in Backup Sync Reference
- Built-in VITC Generator (PAL, NTSC, NTSC-Df)
- Integrated Fiber Length and Optical Power Measurement
- Wide Range AC Power Supply Selectable Front or Rear
- 12V DC Input for Redundant Power Supply
- Temperature Monitoring and adaptive Fan Control

Video and Audio Processing Features

- Automatic Format Detection
- Frame Synchronizer and Framestore on all Video outputs
- 16 Channel Audio Embedder / De-Embedder
- Test Pattern Generator
- On Screen Display (OSD)
- System VITC Display
- Built-in Sample Rate Converter
- Audio and Video Delay Lines

Signal Inputs and Outputs

- 2 SD/HD/3G-SDI Video Inputs
- 2 SD/HD/3G-SDI Video Outputs
- 2 Display Port Outputs
- 2 Analog Audio Mic/Line Inputs
- 2 Analog Audio Line Outputs
- 2 AES3 Digital Audio Ports
- 1 MADI Digital Audio Port (Optical)
- 1 Gigabit Ethernet Port
- 1 Serial Interface (RS232 / 422 / 485 switchable)
- 1 Sync Reference Input
- 1 Sync Reference Output
- Different Fiber Connector Options: (Neutrik Quad, Neutrik Duo, LC, ST)
- Optional Neutrik Quad 25G with WDM connectivity
- Support of single-mode and multi-mode Optical Fibers

Optional Modules

- Prepared for further developments

Technical Specifications

Bi-Directional Ports

MADI	Multi Channel Digital Audio as per AES 10-2003 48 / 96 kHz Channel Modes 56/64 ch @ 48 kHz, 28/32 ch @ 96 kHz Resolution 24 Bit	Ethernet	1000BASE-T, 100BASE-T (full duplex only), 10BASE-T (full duplex only) RFC 2544 Compliant Jumbo Packet Support
AES	Digital Audio as per AES 3-2003 48 / 96 kHz Sample Rate Converter @ 48 kHz (User Selectable) Direct Connection of Artist Intercom Panels Resolution 24 Bit	Serial	RS232, RS422, RS485 (User Switchable) Max. Supported Baud rate 115 kBaud User Switchable Port Type Master/Slave (DTE/DCE) Port Termination 120 Ohm (User Switchable)

DMX512 transfer via MediorNet (serial ports switched to RS-485 without termination)

DMX512 equipment output into MediorNet-Compact			MediorNet-Compact output into DMX512 equipment		
XLR3 / XLR5	Pin	SUB-D-9	SUB-D-9	Pin	XLR3 / XLR5
1	GND	6	6	GND	1
2	Data -	7	3	Data -	2
3	Data +	2	8	Data +	3

MediorNet MN-Compact BASIC

Inputs

SDI-Video	75 Ω SD/HD/3G Serial Digital with embedded Audio (4 groups)	
Input Standards	1.5 Gbps HD-SDI SMPTE292M, 3 Gbps 3G-SDI SMPTE424M/425M Level A – mapping structure 1, SMPTE425M Level B 270 Mbps SD-SDI SMPTE259M, DVB-ASI SMPTE259M/EN50083	
Cable Equalization	> 230m @ 1,5Gbps, > 140m @ 3Gbps, >250m @ 270Mbps (Belden 1694A)	

Analog Audio Mic/Line In		
Gain Range	-6 .. 66 dB	150 Ω Source
Gain Step	1 dB	
Max. Input Level	+24 dBu	
Input Impedance	5.5 kΩ	
Phantom Power	+48 V selectable per channel	
Equivalent Input Noise	-127 dBu	@ Gain 66 dB 150 Ω Source, 20 kHz BW
Dynamic Range	114 dB	@ Gain = -6 dB 150 Ω Source, "A" weighted
Frequency Response	20 Hz .. 20 kHz	-0.1 dB @ 48 kHz sample rate
Common Mode Rejection	> 100 dB	@ 50 Hz - 15 kHz 150 Ω Source, > 40 dB Gain
Crosstalk	< -120 dB	@ 15 kHz adjacent channels
Total Harmonic Distortion	0.006 %	@ 66 dB Gain Full scale, 100 Hz - 10 kHz, 150 Ω Source, 20 kHz BW
Resolution	24 Bit A/D	

Sync Reference Formats	Blackburst NTSC/PAL (incl. VITC), Tri-Level 720p 50/59/60, Tri-Level 1080i 50/59/60, Tri-Level 1080p 23/24/25/29/30, Wordclock 48/96/192kHz
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Outputs

SDI-Video	75 Ω SD/HD/3G Serial Digital with embedded Audio (4 groups)	
Output Standards	1.5 Gbps HD-SDI SMPTE292M, 3 Gbps 3G-SDI SMPTE424M/425M Level A – mapping structure 1, SMPTE425M Level B 270 Mbps SD-SDI SMPTE259M, DVB-ASI SMPTE259M/EN50083	

Display Port	Max. Supported Resolution 1920x1080@60Hz
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Analog Audio Line Out		
Max. Output Level	+18 dBu	+/- 0.2 dB @ digital full scale, 600 Ω load
Output Impedance	< 1 Ω	
Noise	-90 dBu	@ +18 dBu Out "A" weighted
Dynamic Range	114 dB	
Frequency Response	20 Hz .. 20 kHz	-0.1 dB @ 48 kHz sample rate
Crosstalk	< -120 dB	@ 15 kHz adjacent channels
Total Harmonic Distortion	< 0.001 %	@ +18 dBu Out 100 Hz - 10 kHz, 600 Ω Load, 20 kHz BW
	< 0.002 %	@ +4 dBu Out
Resolution	24 Bit D/A	

Sync Reference Formats	Blackburst NTSC/PAL (incl. VITC), Tri-Level 720p 23/24/25/29/30/50/59/60, Tri-Level 1080i 50/59/60, Tri-Level 1080p 23/24/25/29/30, Wordclock 48/96/192kHz, VITC ON/OFF Selectable on Blackburst Outputs
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Transport Latencies

Video Transport Delay	Min. 150 μs, Max. 1 Frame + 150 μs (dependent on input phase)	FSY On (System Synchronous)
	500 μs	FSY Off (System Synchronous)
	500 μs	Sync to Source (Asynchronous)
Digital Audio Delay	500 μs (standard latency, independent of Network size / frame amount)	without sample rate converter
	720 μs + 500 μs : 1220 μs	48 kHz sample rate
	360 μs + 500 μs : 860 μs	96 kHz sample rate
	646 μs + 500 μs : 1146 μs	48 kHz sample rate
Analog Audio Delay	323 μs + 500 μs : 823 μs	96 kHz sample rate
	625 μs + 500 μs : 1125 μs	48 kHz sample rate
	313 μs + 500 μs : 813 μs	96 kHz sample rate
		D/A converting + standard latency
Ethernet	60 μs + 10 μs per MN hop + optical delay on long fibers	64 Byte packet size
	220 μs + 10 μs per MN hop + optical delay on long fibers	9000 Byte packet size
Serial Data	93.75 μs + 10 μs per MN hop + optical delay on long fibers	

Overall

Environmental Temperature	-5 °C to +40 °C (Non-condensing)	
Supply Voltage	100 – 240 VAC, 50 / 60 Hz 12 VDC ±10% (10.8 – 13.2 VDC)	
Power Consumption	80 W	
Cooling	2 Redundant Speed Controlled Fans, Left to Right Airflow	
Dimensions (w×h×d)	483 mm (19") × 133 mm (3 RU) × 241 mm	
Weight	8.2 kg	