

MFR-8000 Datasheet

1. Specifications

Basic specifications

Temperature	0°C to 40°C
Humidity	30% to 85% (no condensation)
Power	100 VAC to 240 V AC \pm 10%, 50/60Hz IN x 2
Consumption	256 x 256 input/output, Dual CPU/Redundant Power Unit (Maximum Configuration): 100 V AC to 120 V AC: 630 VA (623 W), 220 V AC to 240 V AC: 638 VA (606 W) * The power consumption may increase up to the following maximum value if performing different signal routing such as video and audio routing. 100 V AC to 120 V AC: 1000 VA (982 W), 220 V AC to 240 V AC: 946 VA (938 W)
Dimensions	430 (W) x 710 (H) x 403 (D) mm EIA 16RU 482 (W) (Including rack mount brackets)
Weight	68 kg (with full options)
Consumables (at 24-hour operation)	Power supply unit: Replace every 5 years Fans: P-1426, P-1429, P-1430, P-1431, P-1499, P-1500, P-1501, P-1502 Replace every 4 years

Technical specifications

Video Formats	
UHD 4K (12G-SDI) (3G-SDI)	2160/59.94p, 50p (W/ MFR-16SDIGB/16SDOGB) Single Link 12G-SDI (SMPTE ST 2082-10) Quad Link 3G-SDI (SMPTE ST 425-5)
HD (3G-SDI)	1080/60p, 59.94p, 50p (SMPTE 424M)
HD (HD-SDI)	1080/60i, 59.94i, 50i, 30p, 30PsF, 29.97p, 29.97PsF, 23.98p, 23.98PsF, 25p, 25PsF, 24PsF, 24p, 720/60p, 59.94p, 50p (SMPTE 292M)
SD (SD-SDI)	525/59.94i, 625/50i (SMPTE 259M)
DVB-ASI	Compliant to EN 50083-9
Matrix Size	Min. 16 x 16 to Max. 256 x 256 + Monitor OUT x 4 Number of input slots: 16 Number of output slots: 16 (Expandable on a 16-channel basis)
Video Input	
MFR-16SDIA	3G/HD/SD-SDI Input Card (Max. 16 cards) - 75-ohm BNC x 16 Cable Equalization - 3G/HD-SDI: 100m (5C-FB cable) - SD-SDI: 200m (5C-2V cable)
MFR-16SDIB (as video input)	3G/HD/SD-SDI Input Card (Max. 16 cards) - 75-ohm BNC x 16 Cable Equalization - 3G/HD-SDI: 100m (5C-FB cable) - SD-SDI: 200m (5C-2V cable)

MFR-16SDIGB	12G/3G-SDI Input Card (Max. 8 cards) - 75-ohm BNC x 4 (12G-SDI or 3G-SDI) - 75-ohm BNC x 12 (3G-SDI) I/O delay selection Delay (H) (0.3H-1H), 1 frame, 1 frame+ Delay (H)
Video Output	
MFR-16SDO	3G/HD/SD-SDI Output Card (Max. 16 cards) - 75-ohm BNC x 16 (Auto reclocking)
MFR-16SDOGB	12G/3G-SDI Output Card (Max. 8 cards) - 75-ohm BNC x 4 (12G-SDI or 3G-SDI) - 75-ohm BNC x 12 (3G-SDI) I/O delay selection Delay (H) (0.3H-1H), 1 frame, 1 frame+ Delay (H)
Monitoring Output	3G/HD/SD-SDI, DVB-ASI: 75-ohm BNC x 4 (Auto reclocking not supported)
Audio Input	
MFR-16ADI	AES/EBU Audio Input Card with SRC (Max. 4 cards) - 75-ohm BNC x 16 (16 stereo pairs, 32 channels) - 32kHz, 44.1kHz, 48kHz, 96kHz
MFR-16AAI	Analog Audio Input Card with A/D converter (Max. 4 cards) - 25-pin D-sub (female) x 4 (16 stereo pairs, 32 channels) - Balanced or unbalanced, 600-ohm or high impedance - A/D conversion: 48kHz / 24bit
MFR-16AAIEX	Analog Audio Input Card with A/D converter (Max. 4 cards) - 25-pin D-sub (female) x 4 (16 stereo pairs, 32 channels) - Balanced or unbalanced, 600-ohm or high impedance - A/D conversion: 48kHz / 24bit
MFR-16AESI	AES/EBU Audio Input Card (Max. 16 cards) - 75-ohm BNC x 16 (16 stereo pairs, 32 channels) - 48kHz / 24bit (No limitation for MFR-16AESO)
MFR-16SDIB (as audio input)	MADI Audio Input Card (Max. 8 cards) - 75-ohm BNC x 16 (MADI x 16) - MADI: 64-channel, 48kHz / 24bit
Audio Output	
MFR-16AAOEX	Analog Audio Output Card with D/A converter (Max. 4 cards) - 25-pin D-sub (female) x 4 (16 stereo pairs, 32 channels) - Balanced or unbalanced, less than 100-ohm - D/A conversion: 48kHz / 24bit
MFR-16ADAO	Embedded/AES/Analog Audio Output Card (Max. 8 cards) AES/EBU (Synchronous only) - 75-ohm BNC x 8 (8 stereo pairs, 16 channels) - 48kHz / 24bit Embedded audio (1080/59.94i, 1080/60i) - 75-ohm BNC x 2 (8 stereo pairs, 16 channels) - Unbalanced, 48kHz / 24bit Analog audio - 25-pin D-sub (female) x 1 (4 stereo pairs, 8 channels) - Balanced or unbalanced, less than 100-ohm, 48kHz / 24bit
MFR-16AESO	AES/EBU Audio Output Card (Max. 16 cards) - 75-ohm BNC x 16 (16 stereo pairs, 32 channels) - 48kHz / 24bit (No limitation for MFR-16AESI)

MFR-16MADIPO	MADI/SDI Output Card (Max. 8 cards) - 75-ohm BNC x 16 (MADI/SDI x 16) - 48kHz / 24bit - Output delay time: 1 ms or less Video Output - 3G-SDI: 1080/59.94p, 1080/50p - HD-SDI: 1080/59.94i, 1080/50i, 1080/29.97PsF, 1080/23.98PsF, 720/59.94p - Additional delay time: I/O delay selection Delay (H) (0.2H-1H)
MFR-16AESPO	AES/EBU Audio Output Card (Max. 8 cards) - 75-ohm BNC x 16 (16 stereo pairs, 32 channels) - 48kHz / 24bit - Output delay: 1 ms or less
RS-422 data input/output	
MFR-16DTIO	RS-422 data Input / Output Card (Max. 8 cards) Data rate: Max. 115.2 kbps 9-pin D-sub (female) x 16
Reference Input	BB: 0.429 Vp-p (NTSC)/0.45 Vp-p (PAL) or Tri-level Sync: ± 0.3 Vp-p 75-ohm BNC x 2, loop-through (Terminate with 75-ohm terminator, if unused.)
Interfaces	
MFR-LAN	10/100/1000 BASE-T, RJ-45 x 2 (For connecting up to 128 RU/GPI units.) (Second LAN port used in redundant CPU configuration)
PC-LAN	10/100 BASE-TX, RJ-45 x 2 (for PC operation) (Second LAN port used in redundant CPU configuration)
SERIAL	RS-232C/RS-422 (Internal switch) 9-pin D-sub (male) x 1
ALARM	9-pin D-sub (female) x1 (Input: Reset, Output: Power, Fan Alarm)

Options

MFR-CPU	Redundant CPU card
MFR-PS	Redundant power supply unit (AC cord retainer clip included)
MFR-8RUA/18RUA/39RUA/40RU MFR-16RU/16RUD/16RUTA MFR-16RUW/32RUW/64RUW	Remote Control Unit
MFR-GPI	Interface Expansion Unit
MFR-TALM	Tally Manager Unit
MFR-RULINK	Remote Control Relay Unit

Accessories

AC cord and Quick setup guide

2. External Dimensions

(All dimensions in mm.)

