

## MXR-400/MXR-400-S1 Datasheet

### 1. Specifications

#### Basic specifications

Temperature	10°C to 35°C
Humidity	20% to 80% (no condensation)
Power	100VAC to 240VAC $\pm$ 10%, 50/60Hz
Consumption	MXR-400 140VA (144W) at 100-120VAC 132VA (124W) at 220-240VAC: MXR-400-S1 170VA (168W) at 100-120VAC 176VA (156W) at 220-240VAC
Dimensions	438(W) x 44(H) x 429(D) mm EIA 1RU (Excluding protrusions.)
Weight	8.5 kg
Consumables (at 24-hour operation)	Cooling fan:            Replace every 3 years Power supply unit:    Replace every 5 years Battery:                 Replace every 5 years <sup>(*)</sup> SSD:                        Replace every 3 years

#### Technical specifications

Video format	
4K (UHD)	Input: 2160/59.94p, 2160/50p Output: 2160/59.94p, 2160/50p
HD	HD-SDI Input: 1080/59.94i, 1080/50i Output: 1080/59.94i, 1080/50i
Supported MXF format	
4K (UHD)	XAVC QFHD Intra Class300 VBR/CBG (MXF OP1a 600Mbps) XAVC QFHD Long422 200 VBR (MXF OP1a 200Mbps) <sup>(*)</sup>
HD	XAVC HD Intra Class100 CBG (MXF OP1a 100Mbps)
Video Input/ Output <sup>(*)</sup>	
4K (UHD)	Quad-Link 3G-SDI (Level-A/B) SQD/2SI, 75 $\Omega$ , HD-BNC x 4, 1 channel
HD	HD-SDI, 75 $\Omega$ , HD-BNC x 2, 2 channels
Genlock Input	BB: NTSC 0.429V(p-p)/ PAL 0.45V(p-p) or Tri-level sync.: 0.6V(p-p) 75 $\Omega$ , HD-BNC x 1
Audio Input	
Embedded	Max.16ch (4 stereo pairs) (Group 1-4) 24bit 48kHz

Audio Output	
Embedded	16ch (4 stereo pairs) (Group 1-4) 24bit 48kHz * Silence is inserted for channels not recorded in the MXF file.
Time Code Input	
Embedded	SMPTE RP188 ATC (VITC or LTC)
Time Code Output	
Embedded	SMPTE RP188 ATC (VITC or LTC)
Internal Storage	SSD RAID1 (Mirroring)
System Area	Approx. 40GB
Recording Area	MXR-400: Approx. 400GB MXR-400-S1: Approx. 900GB
Interface	
USB1-4	USB 2.0 Standard-A connector x 2 USB 3.0 Standard-A connector x 2
LAN1/LAN2	1000BASE-T RJ-45 x 2
VGA	15-pin mini D-Sub (female) x 1
RS-232C	9-pin D-Sub (male) x 1
IPMI	RJ-45 not used (maintenance only)

(\*1) MXR-40XL codec option (supplied separately) is required.

(\*2) Video I/O ports are shared. Switched according to the MXR-400 mode.

(\*3) Yearly battery replacement is recommended when the MXR-400 is stored without powering on for a long period of time.

\* Storage capacity is shown as 1GB = 1,000,000,000 byte.

### MXF File Specifications

Item	Specification
Complying with	4K(UHD): XAVC QFHD Intra Class300 VBR/CBG XAVC QFHD Long422 200 VBR (*1) HD: XAVC HD Intra Class100 CBG
Wrapping	MXF OP1a
Video	4K(UHD): 3840 x 2160p / 59.94, 50, 29.97, 25 (*2) H.264 High422 10bit Intra 600Mbps VBR/CBG (XAVC QFHD Intra Class300 supported) H.264 High422 10bit Long 200Mbps VBR (*1) (XAVC QFHD Long422 200 supported) HD: 1920 x 1080i / 59.94, 50 H.264 High422 10bit Intra 100Mbps CBG (XAVC HD Intra Class100 supported)
Audio	AES3 PCM 24bit 48kHz 2ch/8ch/16ch
Recording Length	Minimum: 2 Seconds Maximum: 6 hours

(\*1) MXR-40XL codec option (supplied separately) is required.

(\*2) 29.97p is converted to 59.94p and 25p to 50p by simple frame rate conversion (repeating frames) then played.  
Recording in 29.97p or 25p not available.

**Options**

MXR-4S1	Optional hardware to upgrade MXR-400 SSD capacity into 900GB. Send the MXR-400 unit back to FOR-A to have the MXR-4S1 option installed for upgrading. Contact local FOR-A service center or sales office for details.
MXR-40XL	XAVC QFHD Long422 200 compliant codec (License)

**Accessories**

AC Cord, Rack Mount Brackets, CD-ROM, Packing List

**2. External Dimensions**

(All dimensions in mm.)

