

# EMR-MADI

## EMR-IP16-MADI, EMR-OP16-MADI and EMR-IO8-MADI

MADI is fully supported audio format in the EMR audio router family, there are 3 different MADI module available to choose from, all designed to fit in the EMX6 or EMX3 frames. The EMR audio router is modular by design and can be expanded beyond a single frame with ease, all input and output cards utilize TDM connections to a ADMX crosspoint configuration. The EMR-MADI cards are part of this unique system providing maximum flexibility of any audio source to any audio destination.

### Scalability

The EMR-IO8-MADI provides both 8x MADI inputs and 8x MADI outputs all in one card slot, for larger MADI I/O needs the EMR-IP16-MADI and EMR-OP16-MADI will provide expansion in blocks of 16.

### Redundancy

Each EMR audio card has redundant TDM links that can be used with main and redundant ADMX audio crosspoint modules, please see the application diagrams below for details. The EMX frame can provide the options for redundant power, redundant reference and redundant network connectivity.

### Control

When combined with a MAGNUM Unified control system there is a wide range of control panels and interfaces that can be used to manage the routes on a EMR Audio Router.

### System integration

The EMR-MADI card(s) can be combined with other EMR Audio input and output modules for other audio formats such as AA, AES, A-LINK, embed/de-embed video with the ability of for mono (or stereo) between any of the audio formats.

## Features & Benefits

### Audio Routing

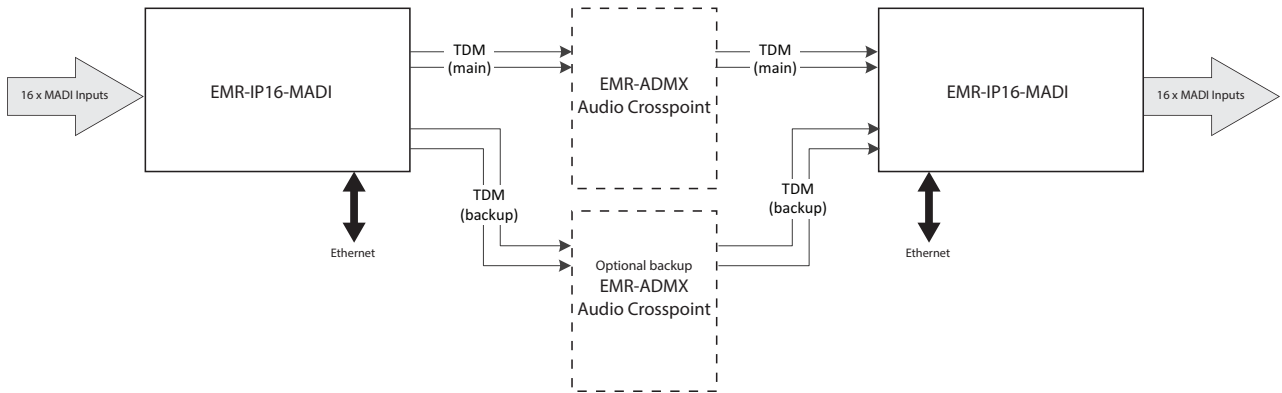
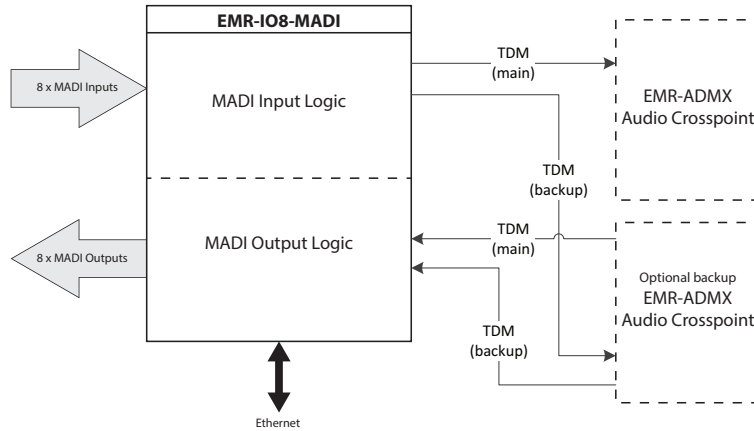
- Support for unbalanced/balanced AES, analog, MADI audio and Studer A-LINK formats
- Sample rate conversion
- Processing capabilities for per channel gain, inversion, mono-mixing, quad-mixing and per channel audio delay
- Advanced audio monitoring for loss, silence, over, phase and mono
- Unique HD video output with audio level display for all audio inputs
- Mono breakaway mode support in panels, L and R channels can be routed to different outputs
- Mono mixing between L and R channels, swapping, L to both, R to both, analog phase inversion and gain

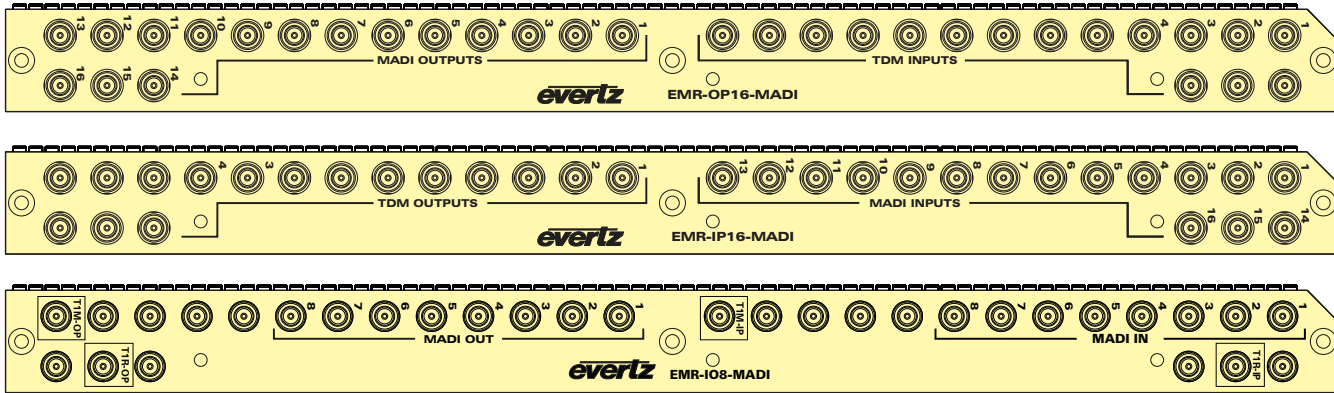
### Advanced System Control & Interfacing

- Supports the full range of Quartz remote control panels
- Full VistaLINK® PRO command & control, SNMP
- Supports a wide selection of control protocols
- Ethernet, Serial RS-422/RS-232 connections
- Full integration with third-party automation systems

### High Availability, 24/7 Design

- Full modular design
- All modules are hot-swappable
- All components are front accessible
- Passive I/O
- External MI connection
- Redundant crosspoint
- Redundant power supply
- Comprehensive system monitoring bus
- VistaLINK® PRO SNMP monitoring of I/O modules





### Specifications

#### Configuration:

- MADI inputs selectable in blocks of 8 or 16
- MADI outputs selectable in blocks of 8 or 16

#### MADI:

Receiver Performance: > 160m  
Connectors: DIN 1.0/2.3

#### TDM:

- Supports TDM v1 and TDM v2  
Receiver capable of 150m with Belden 1694A

#### Main and Backup:

- EMR-IP16-MADI provides 16x MADI to main and backup TDMs with auto switchover on the TDM for each channel
- EMR-OP16-MADI provides main and backup TDMs to 16x MADIs with auto switchover on the TDM for each channel
- EMR-IO8-MADI provides 8x MADI to main and backup TDMs, plus main and backup TDMs to 8x MADIs with auto switchover on the TDM for each channel
- Status monitoring of TDM and MADI inputs

#### Switching Reference:

Reference Inputs: 2x BNC, analog 525/625 or DARS  
Impedance: 75Ω terminating  
Connectors: BNC per IEC 61169-8 Annex A

#### Electrical:

EMX6-FR:  
AC Mains Input: Auto-ranging, 100 ↔ 240 VAC, 50/60 Hz  
Max Operating Current: 9.5 A (@ 115 VAC nominal), 4.0 A (@ 220 VAC nominal)  
Max Power Consumption: 850 W  
Power Supply Configuration: 1 supply standard, optional redundant supply requires separate inlet  
Connector: IEC 60320 — 1 per power supply

#### EMX3-FR:

AC Mains Input: Auto-ranging, 100 ↔ 240 VAC, 50/60 Hz  
Max Operating Current: 4.6 A (@ 100 V/60Hz), 1.85A (@ 240 V/50Hz)

#### Max Power Consumption:

450 W

#### Power Supply Configuration:

1 supply standard, optional redundant supply requires separate inlet

#### Connector:

IEC 60320 — 1 per power supply

#### Physical:

##### Dimensions:

EMX3-FR: 19"W x 5.25"H x 15.75"D (483mmW x 133mmH x 400mmD)  
EMX6-FR: 19"W x 10.5"H x 15.75"D (483mmW x 266mmH x 400mmD)  
0-40°C

##### Temperature:

##### Module Capacity:

EMX3-FR: 5 single slot modules  
EMX6-FR: 15 single slot modules

##### Weight:

EMX3-FR: 32lbs (14.5kg) Full  
17.4lbs (8kg) Empty  
EMX6-FR: 64lbs (29g) Full  
34.8lbs (16kg) Empty

### Ordering Information

EMX6-FR	EMX 6RU Router Chassis with 15 slots
EMX3-FR	EMX 3RU Router Chassis with 5 slots
EMX-FC	EMX frame controller
EMR-OP16-MADI	16x MADI outputs with TDM inputs
EMR-IP16-MADI	16x MADI inputs with TDM outputs
EMR-IO8-MADI	8x MADI inputs with TDM outputs, and 8x MADI outputs with TDM inputs
EMR-ADMX-48x48	48x TDM inputs and 48x TDM outputs
EMR-ADMX-16x16A	16x TDM inputs and 16x TDM outputs

#### Ordering Options (EMX)

**+6PS** Redundant Power Supply for EMX6-FR  
**+3PS** Redundant Power Supply for EMX3-FR