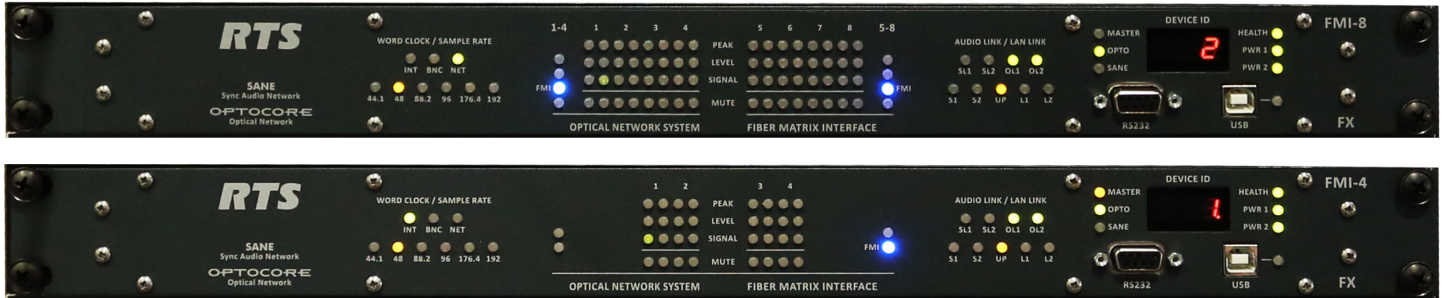


## FMI-Series



## Description

The FMI-Series has been developed to seamlessly integrate intercom systems into a distributed optical network.

The FMI-Series is a rack-mountable 1RU device. It is a silent, convection cooled device. It seamlessly integrates into the OPTOCORE OPTICAL DIGITAL NETWORK SYSTEM. Intercom audio and control data from RTS intercom keypanels, interfaces and matrices are transmitted transparently over Optocore and SANE networks.

The FMI-Series is equipped with either four or eight RJ-45 4-wire intercom ports duplicated with reversed wiring. These ports are wired for connection to intercom keypanels or interfaces and for connection to the intercom matrix.

The pinout of the intercom ports is compatible with RTS (USOC) devices (device dependent) without the need for special cables and adapters.

Each intercom port can be independently routed to any FMI Series or other Optocore device on the network using the Control Software.

The FMI-Series is capable of receiving and transmitting any of the 1024 intercom and audio channels without any external data cabling. System control is provided with LAN, USB, or RS232 connectors.

The Word Clock IN and OUT allows the network to be synchronized from an external source. The FMI network is capable of distributing high-quality, low-jitter clock around a facility to synchronize external devices. For stand-alone applications, the device is equipped with an internal word clock generator.

## Features

- Four or Eight 4-Wire Intercom Ports compatible with RTS (USOC) devices
- Duplicated 4-wire Intercom Port wiring with reversed I/O and Rx/TX
- Individually routable inputs and outputs
- Seamless transport of audio and control data
- Sample rates up to 192 kHz
- Full integration into SANE and Optocore networks
- Comprehensive front panel status indicators
- Optocore FX module
  - 2 x Optocore 2Gbps ports
  - 2 x SANE/LAN ports
  - 2 x LAN ports
  - 4 x RS-485 ports
  - Word Clock I/O
- Redundant power supplies
- Passively cooled device
- LAN, USB and RS-232 ports for configuration and control

# Specifications

## INTERCOM ports

### Hardware standard:

FCC-RJ45

(8 x inputs, 8 x outputs and 4 x inputs, 4 x outputs)

### Analog Line Input

Impedance..... 10 kΩ

Maximum input level..... +18 dBu

SNR..... 115 dB (A-weighted)

THD+N @ -1dBFS..... ≥ 100 dB

### Analog Line Output

Impedance ..... 45 Ω

Maximum input level ..... +18 dBu

SNR ..... 115 dB (A-weighted)

THD+N @ -1dBFS ..... ≥ 98 dB

### Serial I/O

IC485 ..... EIA / TIA – 485

### SANE, LAN ports Convention

#### Audio

TIA - 568A/B, Optocore ..... 200 Mbit/s

#### LAN

TIA - 568A/B, IEEE - 802.3..... 10/100 Mbit/s

### Auxiliary Ports Convention EIA / TIA-485

#### Data channels

Digital control data ..... 4

Data rate..... Up to 10 Mbps

#### Impedance

Termination ..... 330 Ω

Source ..... ≤ 10 Ω

## Word clock Hardware standard 75 Ω / BNC

### Data rate

Depending on

sample rate used ..... 44,1/48/88.2/96/176.4/192 kHz

### Impedance

Output ..... 75 Ω

Input..... 1k / 75 Ω software switch

## Optical Link Input, Output, Dual – Full bandwidth

Connection ..... Duplex LC

Protocol ..... Optocore

Transmission ..... Full duplex

Data rate..... 2 x 2 Gbps

## Optical wave guide cable lengths

Multimode fibre ..... 50 μm ≤ 300 m

Single mode fibre..... 9 μm ≤ 20 km @ 1Gb

9 μm ≤ 10 km @ 2Gb

## Word clock Hardware standard 75 Ω / BNC

Data rate..... 44.1 kHz – 192 kHz

## Power supply 2 (optional) independent power supplies with function check and automatic switch-over

Type..... Switch-mode, universal input

Mains voltage ..... 100...240VAC, 50/60Hz, 25VA-typ, 32VA-peak

## Remote Control

RS232 / USB / Ethernet Control Interface to PC

## Dimensions 1 RU / 19"

W x H x D ..... 19.0" x 1.73" x 7.87" (483 mm x 44 mm x 200 mm)

Weight ..... 6.0 lbs (2.7 kg)

# Order Information

For ordering information, contact your regional sales representative at: <http://rtsintercoms.com/us/intercom/contact>

- FMI-4 SINGLE • FMI-4 fiber interface Single Unit
- FMI-4 PAIRED • FMI-4 fiber interface Paired Units
- FMI-8 SINGLE • FMI-4 fiber interface Single Unit
- FMI-8 PAIRED • FMI-4 fiber interface Paired Units
- MM MOD PAIR • SFP Module Pair, Multi-Mode 2Gbps
- SM MOD PAIR • SFP Module Pair, Single-Mode 2Gbps

The specification information is subject to change without notification. Brand names mentioned are the property of their respective companies.