The FIM-4W2 is a bi-directional optical interface that converts analog audio and serial data for transmission over Fiber.

**Description**
A pair of FIM-4W2 optical interface units enables the conversion and transport of up to two intercom connections over a single fiber optic single-mode or multi-mode cable. Common uses include connecting intercom panels to an Eclipse Matrix, interconnecting Clear-Com equipment across wide area workflows or interfacing to remote 3rd party equipment.

**Audio**
The FIM-4W2 provides two duplex line-level, balanced analog audio connections along with support for RS422 serial data over a single fiber pair. The signals from each channel are multiplexed into a single digital stream while maintaining audio quality and with near-zero latency.

**Connecting Panels and Interfaces**
Two FIM-4W2 interfaces are used for connecting a matrix frame to a remotely located user panel over fiber. For each connection between the frame and interface, a port is connected to one of the two matrix connectors on the FIM-4W2 using the RJ45 connectors and 4-pair CAT5 cable. At the other end, each panel is connected to one of the port connectors on the second FIM-4W2 using the same cabling. Once connected, the matrix frame can see the user panels as if they were directly connected via CAT5 cable.
Technical Specifications

Audio
Transmission Method: Digital, TDM, 48k samples/sec
Input Impedance: >20kΩ, balanced
Output Impedance: 60Ω, balanced
Maximum Input Level: +18dBu, balanced, <1% THD+N
Maximum Output Level: +18dBu balanced; 50-20kHz>10kΩ; <1% THD+N
Frequency Response: 50-20kHz, 0dBu +/-0.4dBu
Total Harmonic Distortion + Noise: <0.2%, across bandwidth, +8dBu <0.007%, 1kHz, max level
Signal to Noise Ratio (SNR): <-80dB, ITU-R 468 wtd; Ref. Max level +18dBu
Port Separation (Crosstalk): <-90dB, Ref. 0dBu, 1kHz, channel to channel
Fiber Data Link Speed: 1.2288Gbps
System Delay: <1ms

Frame-to-Panel Digital Data
Transmission Rate (RS-422, Balanced TTL Levels): 0 to 250 kBits/sec
Jitter: <250ns

Connectors
Connectors: (4) RJ45
Power Connector: 2.5mm jack, screwlock, center pin positive

Power Supply
Input Voltage Range: 10-18V DC
Power Consumption: @12V per end, all channels at full level; <5 watts
A/C Adapter: Supplied

Temperature
Operating: 32°F - +113°F (0°C - +45°C)
Storage: -22°F - 158°F (-30°C - +70°C)
Humidity: 20% - 90%, non-condensing at 40°C

Dimensions
3.4 x 1.2 x 6.3in (WxHxD) (86.4 x 30.5 x 160.02mm)

Weight
0.6lbs (0.27kg)

Legend

Left
1. DC Power
2. Power Indicator
3. Fiber SFP Cage
4. Fiber Link Status Indicators
5. Port 1 Status Indicators
6. Port 2 Status Indicators

Right
1. RJ45 Connectors

Order Code
FIM-4W2
CCC-803062: FIM-4W2 with SFP-SMFO-1G-LX
CCC-803063: FIM-4W2 with SFP-MMFO-1G-SX

Optional Accessories and Spare Parts:
453G008-2: Desktop PSU
SFP-SMFO-1G-LX: Single-mode LX Fiber SFP
SFP-MMFO-1G-SX: Multi-mode SX Fiber SFP
CCC-803051: Rack Mount Shelf
WIR-00046: Cable Adapter
WIR-00047: Cable Adapter

Notice About Specifications
While Clear-Com makes every attempt to maintain the accuracy of the information contained in its documentation, that information is subject to change without notice. Performance specifications included in this document are design center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.CA.Gov