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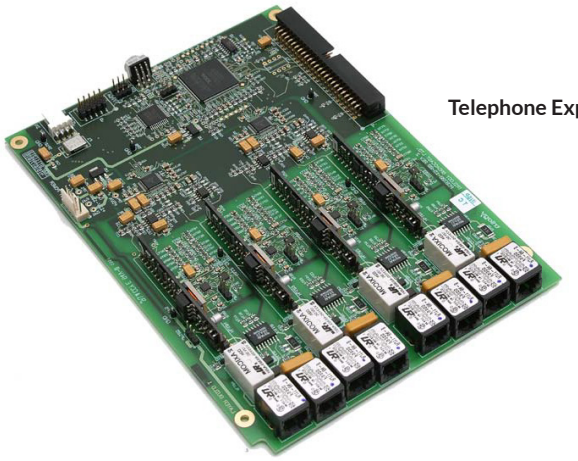
A CLEAR-COM COMPANY

Telephone Expansion Board (FXO)

Mercury Intercom Solutions

Key Features

- Optional interface for Mercury Interface Units (MIUs)
- Provides a standard interface for up to 4 PSTN lines or other third-party telephony devices
- Up to 4 Telephone Expansion Boards per MIU
- Allows outside callers to access the Mercury system and reach individual subscribers or conferences automatically or via an operator
- Enables Mercury users to make and receive outside phone calls from anywhere on the system



Telephone Expansion Board (FXO)

The Telephone Expansion Board (FXO) is an optional interface that provides four third-party telephony systems for Mercury Interface Units.

Description

The Telephone Expansion Board (FXO) is an optional interface board that provides a standard interface for Mercury hardware panels and third-party telephony systems, like PSTN lines, PBXs, cellular telephone interfaces and other telephony devices.

Operation

The FXO board has 4 pairs of RJ11 2-pin modular jack socket connectors and up to 4 FXO cards can be added to a Mercury Interface Unit (MIU). Outside callers can dial into the Mercury system and contact individual Mercury subscribers or conferences automatically or manually through an operator. This option also allows Mercury subscribers to make outside calls from anywhere on the Mercury system using any device with DTMF dialing capability. This includes intercom panels, radios with DTMF dial pads, analog phones connected via the Mercury Telephone Expansion Board (FXS), or VoIP phones connected to the Mercury system.

Call Modes

Incoming calls have the option of having Auto Answer or Manual Answer. Auto Answer is when the incoming call is greeted with a dial tone and then caller then uses a predefined DTMF dial plan to contact a specific Mercury subscriber or conference. Manual Answer is when the incoming call is automatically routed to predefined Mercury hardware or software intercom panels for manual call handling.

Outgoing calls can have line access from intercom panels or line access from other Mercury subscribers with DTMF capability. With line access from an intercom panel, a key on a Mercury panel is used to access a line and dial a call. With line access from other Mercury subscribers, the devices dial a series of digits to access a line and dial a call.

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Technical Specifications

Line Interface

Number of channels: 4 per card, Max of 4 option cards per MIU
DSP Channel usage: 4 DSP IP channels per card, regardless of whether the channel is routed to a different host
Signaling: Loop start or ground
DTMF: DTMF detection for DDOI routing
Bypass phone operation: Phone is switched out of circuit whenever FXO channel is in use
Line Impedance: CTR21, 600R, 900R or Japan – software selectable
Return loss: >18dB 300-400Hz
Protection: FCC pt 68 type B longitudinal surge, 1500V: FCC pt 68 type B metallic surge, 800V
Ring equivalency number: REN <0.2
Longitudinal balance: >60dB (200-1000Hz); 40dB (1000-4000Hz)

Common mode rejection ratio (CMRR):
On hook >70dB 50-500Hz Vcm=60Vrms
Off hook >40dB 50-500Hz Vcm=60Vrms

Common mode overload level (CMOL):
On hook >300Vrms 50-60Hz
Off hook >250Vrms 50-60Hz

Max trip/ring voltage: 300V (Correct operation not implied) Recommended max 120V
Max loop current: 90mA
Ringing voltage – detect: Typically 22V, min 26V, 17-68Hz
Ringing voltage – no detect: Typically 14V, max 18V, 1768Hz
THD: <1% at 0dBm, 1kHz
Crosstalk: <-85dB (inter-channel and inter-card)
Insertion Loss: 0dB
Nominal line TX level: -9dBm ± 1dB
Input level adjustment Via software: –9dB to +12dB in steps of 1.5dB
Output level adjustment Via software: –34.5dB to +12dB in steps of 1.5dB. Mute option
Freq response: 300Hz – 3200Hz ± 2dB ref to 1kHz (8kHz sampling)

Connectors

Line: RJ11 2 pin modular jack socket
Bypass Phone: 1 per channel (4)
Phone connector pinout: Pin 3 – tip (B), Pin 4 – ring (A), other pins - unused

Ringing

Ring Cadence: US Ringtone

Echo Suppression

General: DSP Based adaptive filter providing acoustic & network suppression
Tail length: (acoustic) 63.5ms
ERLE: 30dB typical

Environmental

Operating Temperature:
32° to 122°F (0° to 50°C)
Storage Temperature:
-4° to 185°F (-20° to 85°C)
Operating Humidity: 0 to 90%, non-condensing, relative humidity

Dimensions

5.5 x 0.67 x 8.1in (WxHxD)
(140 x 17 x 205mm)

Weight

7.1oz (200g)

Reliability

MTFB: 80,000 hours

Order Code
700-15-03