


E-IPA-HX Interface Card

For Eclipse® HX Matrix Systems



Linking
People
Together



E-IPA-HX Interface Card

Key Features and Benefits

- Available in 16, 32, 48, and 64 port cards (16 port upgrades)
- Port by port configurable for high quality, low latency AoIP connection
- Supports up to 64 AES67 ports for FSII IPT Transceivers and V-Series Iris panels
- Compatible with Eclipse HX Delta, Median and Omega frames
- Backward compatible with V-Series panels, Agent-IC mobile app, LQ Series and other Eclipse HX systems (G.722)
- V-Series and V-Series Iris panels support intercom and 2 auxiliary audio channels
- AES-128 encryption and silence suppression on all Agent-IC clients
- Max of 3 E-IPA cards in an Eclipse-HX-Delta, max of 4 E-IPA cards in Eclipse-HX-Median and -Omega frames

Interface cards are 6RU frame cards for the Eclipse HX -Delta, Median and Omega system frames that establish intelligent connections for high density, high performance and high reliability.

Description

The E-IPA-HX is a high-density IP interface card that supports up to 64 Clear-Com intercom devices (panels, FSII beltpacks, LQ Series, Agent-IC clients) and also up to 64 FreeSpeak II IPT transceivers. Eclipse HX Configuration Software (EHX) configures the port for its intended application and also provides a dedicated IP Manager screen to monitor connections and add users.

Connection to FreeSpeak II

A single E-IPA-HX enables the connection of up to 64 FSII-TCVR-IP-19 transceivers in addition to 64 intercom client devices or interface devices. Each FSII-TCVR-IP-19 transceiver can support up to 10 FSII beltpacks.

Connection to V-Series and V-Series Iris Panels

All V-Series user panels can connect to their host matrix by either an IP-based connection or with an analog-based connection. With the E-IPA-HX card, V-Series Iris panels can be configured to connect using low latency Audio-over-IP (AoIP) or low data rate G.722 IP audio channels. Connection with IP allows a diverse range infrastructure to be used, including local LANs/VLANs, microwave links or cellular networks. In each case, the system optimizes connection parameters for the selected network type. In addition to providing the intercom channel over IP, V-Series and V-Series Iris panels can optionally route two auxiliary audio channels to and from the matrix. This configuration transforms a panel into a combined intercom panel/audio distribution node.

Connection to Agent-IC Mobile Clients

Agent-IC is a software-based intercom client for smartphone and tablet devices. Each Agent-IC device requires a single E-IPA-HX port, configured by the EHX software. Audio is encrypted to AES128 and silence suppression is available as an option to reduce data usage. Agent-IC clients are typically connected over WiFi, 3G or LTE networks.

Connection to LQ Series

LQ Series are IP interface devices that can connect to an E-IPA-HX card. An E-IPA connection to one or more LQ devices may be used to implement remote IP connections to 2-wire, 4-wire, two-way radios and/or third-party intercom systems over IP networks. The LQ Series devices can also provide SIP IP telephony interfacing for Eclipse HX systems via the Dynam-EC management tool.

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Connection to Eclipse-HX Matrices

E-IPA-HX IP ports can also be configured to implement either trunk lines or intelligent tie lines to other Eclipse-HX systems. Trunk lines are allocated on demand to service inter-matrix intercom requests. Tie lines are static connections, which are always available to connect audio resources in one matrix to another. Up to 64 matrices may be linked together to form one logical system.

Technical Specifications

Maximum cards per frame: 3 for HX-Delta, 4 for HX-Median and HX-Omega

Ports per card: 16, 32, 48, or 64

IVC Connection

Network

CODEC: G.722 CODEC, 16kHz sample rate (@64kbps)

Connectivity: CAT5e/6

IP addressing: Static and DHCP

Network compatibility: Layer 1 and Layer 2: LAN, WAN, VPN infrastructure. Routable via 3G, 4G, LTE data services

Physical LAN: 100/1000BASE-T Full-Duplex (Auto-negotiation not supported) and 1G SFP fiber

AoIP Connection

Network (AES67)

Connectivity: CAT5e/6

IP Addressing: Static, mDNS & DHCP

Networking Compatibility: Layer 2 & 3 LAN

Physical LAN: 100/1000BASE-T Full-Duplex (Auto-negotiation not supported) and 1G SFP fiber

Minimum Network bandwidth required per duplex connection:

140kb/s per each direction (IVC), 11Mb/s per transceiver

Ports required: 1

Protocols used: TCP/IP, UDP, RTP

Quality of Service: TOS set for Priority, Immediate and Critical (IVC), DiffServ RFC2474 (AoIP)

IGMP: On (AoIP)

Multicast: On (AoIP)

Network Timing: PTP v2 (AoIP)

Power

(front and rear cards combined)

+3.3V 4.75A

+5V 0.77A

+12V 0.18A

Environmental

Operating Temperature:

+32° F to +104° F (0° C to +40° C)

Storage Temperature:

-67° F to +158° C (-55° C to +70° C)

Humidity: 40 - 90%, non-condensing

Dimensions

Height: 6RU (vertically in Eclipse HX-Median and Omega frames, or horizontally in Eclipse HX-Delta frames)

Depth:

Front Panel: 11.8in (300mm)

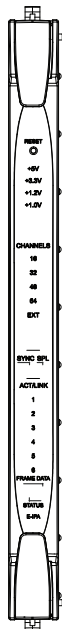
Rear Panel: 2.28 (58mm)

Weight

Front Card: 1.64lbs (0.75kg)

Rear Card: 9.2oz (0.26kg)

E-IPA-HX Front



E-IPA-HX Back



Order Codes

E-IPA-16-HX: 16 ports

E-IPA-32-HX: 32 ports

E-IPA-48-HX: 48 ports

E-IPA-64-HX: 64 ports

E-IPA-UG16-HX: 16-port license upgrade

E-IPA-HX Interface Card

For Eclipse[®] HX Matrix Systems

E-IPA-HX IP Connections

