



## V-Series IrisX Keypanels

### High-Density Intercom User Stations

### Key Features and Benefits

#### Keypanel

- Rotary, Lever, or Pushbutton
- 12, 24, 32 Keysets with Level control
- 10 Character High Brightness Color Display with volume bar and a tally light
- Headset or hands-free support with speaker and mic

#### Connectivity - Local

- External Inputs & Outputs
- Second Headset
- Hot Mic Output
- Main Line Level Output
- Logic GPIO

#### Connectivity - System

- Local Networks - AES67 Capable Networks
- Global Network - I.V. Port
- Redundant Networks\* - 2022-7\*\*
- Direct Connection\* - Eclipse MVX

#### Eclipse Digital Matrix System

- Channel, Group, IFB, Role, Interface, Sort Group, Dynam-EC Key Group, Control, Telephone
- Separate Talk/Listen Key Assignment
- Key Stacking
- Shift Pages
- Local Mixer with Adjustable Routing, Filters, Dynamics & Remote IFB Controls
- Hosted IP Direct Ports
- Expansion Panels
- Latin (vertical or horizontal), Cyrillic, Hangul, Kanji, Katakana and Arabic fonts
- Fast Key & Local Assignments
- Listen Again

#### Arcadia Central Station – Essential

- Channel, Group, IFB\*\*, Role, Interface
- Combined Talk/Listen Key Assignment
- Single Page
- Second Headset Listen
- Local Mixer with Fixed Configuration
- Listen Again

## V-Series IrisX™ Keypanels are a range of high-density intercom user stations for the Eclipse® HX Digital Matrix System and Arcadia® Central Station.

### Description

V-Series IrisX is a range of high-density keypanel intercom user stations for use with the Eclipse Digital Matrix or Arcadia Central Station. V-Series IrisX panels are available with 12 to 32 keysets in 3 different styles of user controls: rotary with push button, lever, and push button. Each keyset includes a 10-character color display, visual volume bar and lights to display the configuration or status of the capability assigned to the keyset from the host intercom system.

### Technical Specifications

#### Keysets

12-32 assignable keysets with a 10-character color display, volume bar and multi-color tally light for configuration and state information.

#### Hardware Options

- **Rotary:** Rotary Level Control & Talk Button per Keyset
- **Lever:** Lever Talk & Listen key with level control buttons per Keyset
- **Push:** Multi-function pushbutton key with level control buttons per Keyset

#### Connectors

##### Keypanel

**Headset:** 4-pin XLR-M (X4), 5-pin XLR-F (X5), 7-pin XLR-M (X7 – 2 PTT Parallel with GPI 1-2)

**Gooseneck Mic:** 3-pin Tuchel

**Auxiliary Audio:** (1) DB25M (Headset 2, External I/O 1 & 2, Main Out, Hot Mic Out)

**GPIO:** (1) DB25F (4 GPI, 2 GPO)

**USB:** Type A (Front, Rear)

**Expansion Panel Out:** (1) RJ45\*

**Analog:** (1) RJ45 for Eclipse MVX\*

**LAN:** (2) RJ45

**DC Power Connector:** KPJX-4S-S

**Grounding Screw:** Terminal

#### Expansion\*

**Expansion Panel In:** (1) RJ45

**Expansion Panel Out:** (1) RJ45

**DC Power Connector:** KPJX-4S-S

**Grounding Screw:** Terminal

#### Controls and Indicators

##### Front Panel

##### Keypanels:

Keysets as per panel variant

(1) Mic mute Button

(1) Headset/Gooseneck Mic Input Select Button

(1) Menu Access Button

(1) Shift Page Button

(1) Numerical Keypad – 2RU only

(4) Function Keys – 2RU Lever only

(1) Main Level Control

(1) Aux Level Control

##### Expansion\*:

Keysets as per panel variant

##### Rear Panel

##### Keypanels:

(2) LAN RJ45 Link/Activity LEDs

#### Microphone

**Input Type:** Dynamic/Electret – Selectable

**Microphone Voltage:** 5V

**Frequency Response:** 150Hz to 20kHz ±3dB

**Impedance (Electret):** 1700 Ω +/- 10%

**Impedance (Dynamic):** 1000 Ω +/- 10%

#### Headset

**Earphone Impedance:** >= 32Ω

**Output:** 75mW into 50Ω @ <1% THD

#### Loudspeaker

**Frequency Response:** 40Hz-20kHz +/- 3dB

\*Eclipse features

\*\*Coming Soon.

# V-Series IrisX Keypanels

## High-Density Intercom User Stations

### Technical Specifications

#### 4-Wire Aux Line Level Interfaces

Transformer balanced input and output

**Input:**

**Nominal Level:** 0dBu

**Maximum Level:** +18dBu

**Frequency Response:** 30Hz to 22kHz  $\pm$ 3dB

**Noise:** <-70 dBu RMS

**THD:** <0.02% @ 1kHz

**Impedance:**  $\geq$  120K $\Omega$

**Output:**

**Nominal Level:** 0dBu

**Maximum Level:** +18dBu

**Frequency Response:** 30Hz to 22kHz  $\pm$ 3dB

**Noise:** <-70 dBu RMS

**THD:** <0.02% @ 1kHz

**Impedance:**  $\leq$  50 $\Omega$

#### Logic Inputs – GPI

See Host System for configuration options

**Input:** 4

**Style:** Opto-Isolated

**Input Voltage Range:** 4 - 30V DC or AC

**Input Current:**  $\geq$  10mA required

#### Logic Outputs – GPO/Relay

See Host System for configuration options

**Style:** SPDT / Power Relay

**Normalized:** Open or Closed, separate pins

**Switching Voltage (Max):** 24V DC

**Switching Current (Max):** 250mA

#### Power

**DC Power Input:**

**Voltage:** 12V DC  $\pm$  5%

**Current (Max):** 5A

**Power (Max):** 60W

**BTU (Max):** 205 BTU/hr

**Input Power Connector:** KPJX-4S-S

This unit is powered via DC input using:

**AC Adapter - Inline:**

**Type:** PSU-EXT-002 (supplied)

**Input Voltage Range:** 100 - 240V AC

**Input Frequency Range:** 50 - 60Hz

**Input Power Connector:** IEC-C14

**Output Voltage:** 12V DC  $\pm$  5%

**Output Current (Max):** 5A

**Output Power (Max):** 60W

**Output Power Connector:** KPPX-4-P

**Ground:** Isolated

#### Environmental

**Operating:** 32°-113°F (0°-45°C)

**Storage:** +32° to 158°F (0°-70°C)

**Humidity:** 20-90%, Non-Condensing

#### Dimensions

##### 1RU

19 x 1.72 x 4.62in (WxHxD)

(483 x 43.6 x 117mm)

##### 2RU Rotary & Push

19 x 3.47 x 4.62in (WxHxD)

(482.6 x 88.1 x 117.3mm)

##### 2RU Lever

19 x 3.47 x 4.54in (WxHxD)

(482.6 x 88.1 x 115.3mm)

##### Expansion Rotary\*

19 x 1.72 x 4.24in (WxHxD)

(483 x 43.6 x 108mm)

##### Expansion Lever\*

19 x 1.72 x 4.32in (WxHxD)

(483 x 43.6 x 109.8mm)

##### Expansion Push\*

19 x 1.72 x 4.15in (WxHxD)

(483 x 43.6 x 105.4mm)

**Note:** PSU bracket adds 2.21" (56.1mm) to the depth of a panel.

#### Weight

##### 1RU Rotary

4.23lbs (1.92kg)

##### 1RU Lever

4.35lbs (1.97kg)

##### 1RU Push

4.17lbs (1.89kg)

##### 2RU Rotary

6.45lbs (2.93kg)

##### 2RU Lever

6.13lbs (2.78kg)

##### 2RU Push

6.27lbs (2.85kg)

##### Expansion Rotary\*

3.59lbs (1.63kg)

##### Expansion Lever\*

3.49lbs (1.58kg)

##### Expansion Push\*

3.54lbs (1.61kg)

# V-Series IrisX Keypanels

## High-Density Intercom User Stations

### Network Specifications | Firmware Release 6.0+

V-Series IrisX keypanels include 2 physical LAN connections that are used bridged or separated depending on configuration and network traffic used. Parameters for different traffic types are displayed below.

#### Administration

For CCM Management

#### Network Protocols

Ethernet IPv4–Unicast Audio & Control

mDNS–Multicast Device Discovery

HTTP–Management

HTTPS–Secured Management

#### Network Ports

##### Unicast:

Port 80 TCP–Web Interface, System Management

Port 443 TCP - Secured Web interface, System Management

##### Multicast:

Port 5353 UDP–mDNS, Names, Discovery, Pairing

#### Network Parameters

**MAC Address Prefix:** 00:0e:98:....

**Link-Local Default IP Address Range:** 169.254.0.0/16

#### Recommended Ethernet Switches:

- Managed Ethernet Switch
- 100/1000 Base-T Ports
- 1000 Base IP Switch Trunks
- QoS Configuration
- Energy Efficient Ethernet bypass option
- IGMP Snooping options

#### I.V. Port

For system connectivity over LAN/WAN/Internet

#### Network Protocols

Ethernet IPv4–Unicast Audio & Control

Layer 3–IP Routable

DNS–Domain Name Server

IVP–Proprietary intercom Audio and Control

G722–Audio Codec

AES-128–Audio and Control Encryption

Network Connectivity: Ethernet, Wi-Fi, 3G, 4G, LTE (as available on 3rd-party infrastructure)

#### Network Ports

##### Unicast:

Ports 6001 or 6002 (host system default) TCP–System Management

Ports 6001 or 6002 (host system default) UDP–IVP Audio Streams

##### Multicast:

No multicast ports are used for I.V. Direct

#### Audio

**Audio Encoding:** G.722 Fixed Wideband 7kHz within 64kbit/s

**Frequency Response:** 50Hz–7kHz

**Silence Suppression:** Optional in LAN & WAN modes. Enabled in Internet mode.

#### Network Parameters

##### Resource Use:

**Arcadia:** 1 Licensed Port

**Eclipse:** 1 Port on IPA/IVC card

##### Bandwidth:

140 kbps to/from

With far-end silence suppression & bi-directional forward error correction

##### Package size:

**LAN:** 8ms

**WAN:** 24ms

**Internet:** 40ms

**Network Jitter Tolerance:** Rx: Selectable

**LAN:** <=12ms

**WAN:** <= 120ms

**Internet:** <=200ms

**Forward Error Correction:** Enabled in Internet mode

**Encryption:** AES-128 enabled in WAN & Internet modes

**QoS Tags:** DSCP=34, Assured Forwarding (AF41)

**MAC Address Prefix:** 00:0e:98:....

**Link-Local Default IP Address Range:** 169.254.0.0/16

# V-Series IrisX Keypanels

## High-Density Intercom User Stations

### Network Specifications | Firmware Release 6.0+

#### AES67

For system connectivity over Local high-bandwidth networks

##### Network Protocols

Ethernet IPv4– Unicast Audio & Control  
mDNS–Multicast Device Discovery  
Layer 3 Routable\*  
HTTP–Management  
PCM–Audio  
DiffServ–QoS  
IGMPv2–Multicast Management for PTP  
PTPv2–Synchronization  
SAP–Session Announce Protocol  
RTSP–Real Time Streaming Protocol  
SMPTE 2022-7 –Network Redundancy\*

##### Network Ports

###### Unicast:

Port 6001 TCP – System Connection  
Port 15000-15525 UDP – Audio Media

###### Multicast:

IP 224.0. 1.129 Ports 319, 320 – PTP Synchronization  
IP 224.0.0.251 Port 5353 UDP – mDNS, Names, Discovery, Pairing

##### Network Parameters

**Bandwidth:** ~ 5-9.6 Mbs (max)

**Network Jitter Tolerance:** < 2ms @ 125µs package size,  
< 20ms @ 1ms package size

##### QoS Tags:

**Clock:** DSCP=46, Expedited Forwarding (EF)

**Media:** DSCP=34, Assured Forwarding (AF41)

**Management:** DSCP=0, Best Effort (DF)

**PTP Parameters:** (host system configured)

**PTP domain:** 0

**Priority 1:** 127

**Priority 2:** 128

**Announce interval:** +1 (2s) (1/2s)

**Sync Rate:** -3 (125ms) (1/8s)

**Package Size:** 125µs, 1ms (host system configured)

**Media Profile:** AES67

**IGMP:** Enabled

**Multicast:** Enabled

**MAC Address Prefix:** 00:0e:98:....

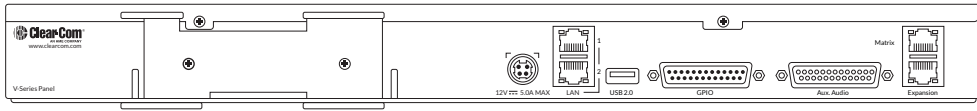
**Link-Local Default IP Address Range:** 169.254.0.0/16

**Further Details:** Refer to the [AES67 Network Recommendations](#) for further information, for network performance and use on converged networks.

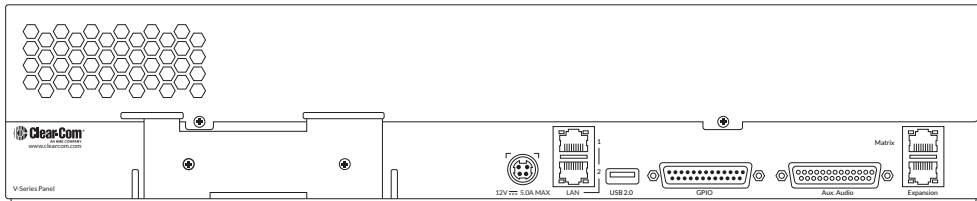
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## High-Density Intercom User Stations

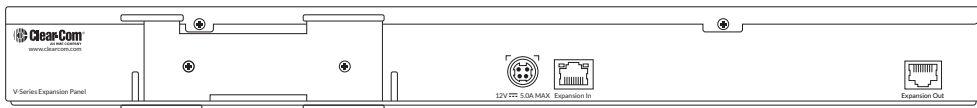
### Rear Panels



1RU V-Series IrisX Rear Panel



2RU V-Series IrisX Rear Panel



V-Series IrisX Expansion Rear Panel

### Order Codes

#### Rotary

VI-PNLB-12R-X4: 12-Key, 4-pin XLR-M Hdst 1RU  
VI-PNLB-12R-X5: 12 Key, 5 pin XLR-F Hdst 1RU  
VI-PNLB-12R-X7: 12 Key, 7 pin XLR-M Hdst 1RU  
VI-PNLB-24R-X4: 24 Key, 4 pin XLR-M Hdst 2RU  
VI-PNLB-24R-X5: 24 Key, 5 pin XLR-F Hdst 2RU  
VI-PNLB-24R-X7: 24 Key, 7 pin XLR-M Hdst 2RU  
VI-EXPB-12R: 12 Key Expansion 1RU

#### Pushbutton

VI-PNLB-12P-X4: 12 Key, 4 pin XLR-M Hdst 1RU  
VI-PNLB-12P-X5: 12 Key, 5 pin XLR-F Hdst 1RU  
VI-PNLB-12P-X7: 12 Key, 7 pin XLR-M Hdst 1RU  
VI-PNLB-24P-X4: 24 Key, 4 pin XLR-M Hdst 2RU  
VI-PNLB-24P-X5: 24 Key, 5 pin XLR-F Hdst 2RU  
VI-PNLB-24P-X7: 24 Key, 7 pin XLR-M Hdst 2RU  
VI-EXPB-12P: 12 Key Expansion 1RU

#### Includes:

(1) External PSU (PSU-EXT-002)

#### Optional Parts

110/100: Gooseneck Microphone – 3.9" (10 cm)  
110/340: Gooseneck Microphone – 13.4" (34 cm)  
110/490: Gooseneck Microphone – 19.3" (49 cm)

#### Lever

VI-PNLB-12L-X4: 12 Key, 4 pin XLR-M Hdst 1RU  
VI-PNLB-12L-X5: 12 Key, 5 pin XLR-F Hdst 1RU  
VI-PNLB-12L-X7: 12 Key, 7 pin XLR-M Hdst 1RU  
VI-PNLB-32L-X4: 32 Key, 4 pin XLR-M Hdst 2RU  
VI-PNLB-32L-X5: 32 Key, 5 pin XLR-F Hdst 2RU  
VI-PNLB-32L-X7: 32 Key, 7 pin XLR-M Hdst 2RU  
VI-EXPB-16L: 16 Key Expansion 1RU