HMS-4X Main Station

Digital Partyline Solutions

Linking People Together

HMS-4X

Key Features and Benefits

- Up to 3 main stations and 3 LQ-R Series devices can be linked over LAN or WAN
- When connected to LQ-R interfaces up to 24 extra I/O ports, connection to IVC-32-HX card, SIP/VoIP calling from CCM, connection to Agent-IC mobile app
- Up to 24 channels of audio (with software v3.0 or higher)
- Expand Main Station with Remote Stations to provide up to 24 keys in one location
- Core Configuration Manager (CCM) browser-based tool (with software v3.0 or higher)
- Up to 60 beltpacks supported on one system (DPL + IP)
- Large format yellow OLED, 10-character label displays
- Plug-and-go installation with hardware auto-discovery
- Line status indication
- Rotary channel level controls
- USB-A and USB Micro-AB ports
- Built-in expansion slots for optional interface modules
- Interface modules available: Ethernet, fiber, 2-wire and 4-wire
- Program input and Stage Announce out
- Speaker and Program level controls
- GPIO-DB-25 (4 relays and 4 opto inputs)
- Remote mic kill on all connected devices

HelixNet is a digital partyline system with up to 24 channels of full-duplex audio and program audio over any shielded twisted-pair cable or LAN.

Description

The HMS-4X is a 1RU digital partyline main station with 12 channels of full-duplex audio and program audio feed that can support up to 60 beltpacks on a single station. Install the optional expansion license to expand the channel density from 12 to 24 intercom channels for a total of 24 channels over a single shielded twisted-pair or CAT5/6 cable. The user can select any 4 of up to 24 channels with the ability to talk and/or listen on the selected channel. The user can listen via the integrated speaker or headset and can talk via a headset mic or a push-to-talk microphone. Online configuration is available through the browser-based Core Configuration Manager (CCM) tool. When using software v4.0 or higher, up to 3 LQ-R Series devices can be linked for additional I/O density and connection options. Binaural listening is also available on HXII-BP-5X beltpacks.

Operation

The front panel of the HMS-4X has easily accessible separate headset and mic buttons, a speaker with a rotary knob to control listen volume levels, multi-color LED levels, a Stage Announce button, a Remote Mic Kill button and an All Talk button.

Seamless Linking

Up to three HMS-4X Main Stations can be linked together to supply additional Powerlines and I/O ports to a HelixNet system. Once linked, all main stations seamlessly share all connected end-points and I/O modules. LQ Series devices can link to the HMS-4X main station when an HLI-ET2 module is fitted. Up to three LQ-R Series devices can be linked over LAN or WAN to provide up to 24 extra I/O ports, connection to Agent-IC mobile app, connection to Eclipse-HX matrix via an IVC-32-HX interface card, and SIP/VoIP calling from the CCM.

Optional Modules

Each HMS-4X has three rear panel interface module slots for a combination of any four available modules: Ethernet, Fiber, 4-Wire and 2-Wire. The Ethernet module (HLI-ET2) provides a dual LAN interface to connect multiple HMS-4X main stations or can connect HRM-4X remote stations, HKB-2X speaker stations, and HXII-BP beltpacks via Ethernet. The Fiber module (HLI-FBS) provides a daisy-chain fiber interface connection to other HMS-4X main stations. The 4-wire module (HLI-4W2) provides an easy way to interface common 4-wire audio paths. The 2-wire module (HLI-2W2) provides connection between Clear-Com and/or RTS intercom to the HMS-4X main stations.

* CCM is only available in software v3.0 and requires HLI-ET2 or HLI-FBS for access.

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Technical Specifications

Linking
Up to three Main Stations may be linked using any combination of HLI-ET2 Ethernet or HLI-FBS Fiber modules. Up to 3 LQ-R Series devices can be linked using the HLI-ET2 module. All linking is via IP over LAN/WAN connections.

Channels
12 or 24 intercom channels. One local and any networked program audio feeds (Assignable to intercom channels)

Connectors
Intercom Line: (2) 3-pin XLR–M, (2) 3-pin XLR–F
Headset: 4-pin XLR–M
USB: Type A & Micro AB
Program: 3-pin XLR–F
SA (Stage Announce): 3-pin XLR–M
Hot Mic/IFB Interface: 1/4" (0.64cm) phone jack
GPI: 25 way D-type female

Microphone Pre-amplifier
Headset Mic Impedance: 200Ω (Dynamic)
Headset Mic Voltage: 1.7V (Electret selectable)
Limiter: +23dB

The following is specified for a route to four-wire output at 0dBu out:
Mic Gain: 60dB (Dynamic), 45dB (Electret)
Frequency Response: 200Hz – 10 kHz ±3dB
Contoured for Intelligibility Distortion: <0.2% THD @ 1kHz
Noise: <-55dBu (Dynamic), <-65dBu (Electret)

Headphone Amplifier
Load Impedance: >32Ω
Output Level: +12dBu before clipping
Sidetone: -12dBu (selectable)

The following is specified for a route from a four-wire input at 0dBu in:
Max Gain: 0dB
Frequency Response: 40Hz - 10kHz ±3dB
Distortion: <0.1% THD @ 1kHz
Noise: <-65dBu
Headphone Limiter: 0dBu (selectable)

Loudspeaker Amplifier
Load Impedance: 8Ω
Output Level: +18dBu before clipping

The following is specified for a route from a four-wire input at 0dBu in:
Max Gain: 18dB
Frequency Response: 200Hz - 10kHz ±3dB
Distortion: <0.1% THD @ 1kHz
Noise: <-50dBu

Program Line Input
Maximum Level Before Clipping: +18dBu
Nominal Input Level: 0dBu (selectable)
Input Impedance: >= 10KΩ

The following is specified for a route to four-wire output at 0dBu out:
Frequency Response: 20Hz - 10kHz ±3dB
Distortion: <0.2% THD @ 1kHz
Noise: <-65dBu

Stage Announce Input
Maximum Level Before Clipping: +18dBu
Nominal Output Level: 0dBu (selectable)
Output Impedance: <= 100Ω

The following is specified for a route from a dynamic headset:
Frequency Response: 300Hz - 12kHz ±3dB
Distortion: <0.1% THD @ 1kHz
Noise: <-55dBu

Hot Mic Input
Maximum Level Before Clipping: +12dBu
Nominal Output Level: 0dBu (selectable)
Output Impedance: <= 100Ω

The following is specified for a route from a dynamic headset:
Frequency Response: 300Hz - 12kHz ±3dB
Distortion: <0.2% THD @ 1kHz
Noise: <-55dBu

Main Power
Input Voltage Range: 100 - 240VAC
Input Frequency Range: 50 - 60Hz
Input Power: <= 250VAC
Output Voltage: +/-29VDC ± 1V
Output Currentper Channel: 1.5A (continuous)
Power Connector: IEC60320-1-C14

Environmental
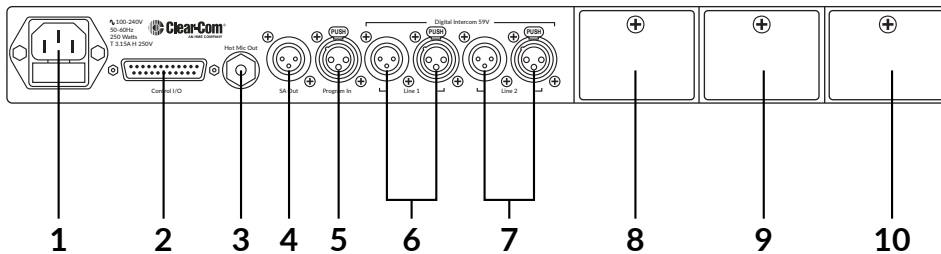32° - +104°F (0 - +40°C) 90% relative humidity

Dimensions
1.75 x 19 x 13 in (HxWxD) (44 x 483 x 320 mm)

Weight
5.83 lbs. (2.65 kg)

HMS-4X Back Panel

Legend
1. Universal Power Socket (fused)
2. GPIO DB-25, Announce Out Relay
3. Hot Mic Output - 1/4" TRS
4. Stage Announce Line Out
5. Program Input
6. Line 1 (partyline)
7. Line 2 (partyline)
8. Option Module Slot 1
9. Option Module Slot 2
10. Option Module Slot 3

Order Code

HMS-4X

Optional Interface Modules and SFPs (Sold Separately):
HLI-2W2: 2-wire module
HLI-4W2: 4-wire module
HLI-ET2: Ethernet module
HLI-FBS: Fiber module
HLI-MMFO: Single-mode SFP
HLI-SMFO: Multi-mode SFP

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