

HMS-4X Main Station

Digital Partyline Solutions

Linking
People
Together



HMS-4X

Key Features and Benefits

- Up to 3 Main Stations can be linked over LAN
- Up to 24 channels of audio (with software v3.0 or higher)
- Core Configuration Manager (CCM) browser-based tool (with software v3.0 or higher)
- Up to 20 beltacks supported on one main station
- 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
- Speaker and Program level controls
- GPIO-DB-25 (4 relays and 4 opto inputs)
- Remote mic kill

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

Description

The HMS-4X is a 1RU digital partyline main station with 4 channels of full-duplex audio and program audio feed that can support up to 20 beltacks on a single station. When using software 3.0 or higher, the HMS-4X offers 12 or 24 channels on a single main station and has access to the browser-based Core Configuration Manager (CCM) tool*. Install the optional expansion license to expand the channel density by an additional 12 intercom channels for a total of 24 channels over a single shielded twisted-pair cable.

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 without the need for active splitter devices. Linked stations are automatically detected and configured so that any beltack has access to any two of the available active intercom channels.

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 Remote Stations (HRM-4X) and Speakers Stations (HKB-2X) 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 or RT S intercom to the HMS-4X Main Stations.

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Technical Specifications

dBu is an absolute measurement. 0 dBu is referenced to 0.775 volts RMS.

Linking

Up to three Main Stations may be linked using any combination of HLI-ET2 Ethernet or HLI-FBS Fiber modules.

Channels

Four local plus any networked 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" (0.64 cm) phone jack
GPI: 25 way D-type female

Microphone Pre-amplifier

Headset Mic
Impedance: 200Ω (Dynamic)
Headset Mic Voltage: 1.7V (Electret selectable)
Limiters: +23dB
The following specified for a route to four-wire output at 0dBu out:
Mic Gain: 60dB (Dynamic), 45dB (Electret)
Frequency Response: 00Hz - 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 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 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 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 Output

Maximum Level
Before Clipping: 18dBu
Nominal Output Level: 0dBu (selectable)
Output Impedance: ≤ 100Ω
The following specified for a route from a dynamic headset:
Frequency Response: 300Hz - 12kHz ±3dB
Distortion: <0.1% THD @ 1kHz
Noise: <-55dBu

Hot Mic Output

Maximum Level
Before Clipping: 12dBu
Nominal Output Level: 0dBu (selectable)
Output Impedance: ≤ 100Ω
The following 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 Current per Channel: 1.5A (continuous)
Power Connector: IEC60320-1-C14

Environmental

Max temperature is 40°C (104°F)
0 - 90% relative humidity

Dimensions

19" W x 1.75" H x 13" D
(483 mm x 44 mm x 320 mm)

Weight

5.83 lbs. (2.65 kg)

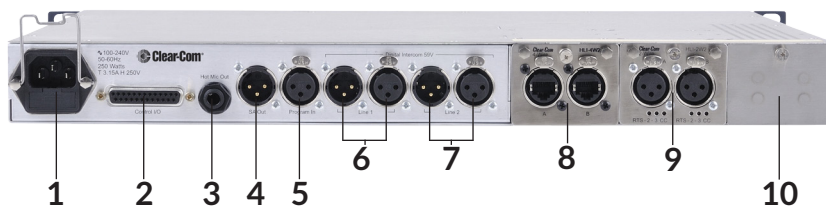
Legend

1. Universal Power Jack
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 Slot 1 (HLI-2W2 not included)
9. Option Slot 2 (HLI-ET2 not included)
10. Option Slot 3

Order Code

HMS-4X

HMS-4X Rear Panel



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Notice About Specifications

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