

HMS-4X Main Station



The HMS-4X is a 1RU digital partyline main station that provides power and up to 12 networked channels of audio to support up to 20 digital beltacks on a single shielded twisted-pair cable.

DESCRIPTION

The HMS-4X is a 1RU digital partyline main station that offers 4 channels of full-duplex audio and program audio feed that can support up to 20 beltacks on a single station. The HMS-4X has high channel density, offering up to 12 networked intercom channels and power for beltacks transmitted over a single shielded twisted-pair cable (mic, CAT5 or CAT6 cables). The system is designed to operate on a facility's existing cabling structure so that no additional cable runs are needed. The front panel 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 Remote Mic Kill button and an All Talk button. Plug-and-go installation, quick access to system settings, simple cable operations and fast update capabilities make the HMS-4X easy to use.

SEAMLESS LINKING

Using single shielded twisted-pair cabling infrastructures, 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

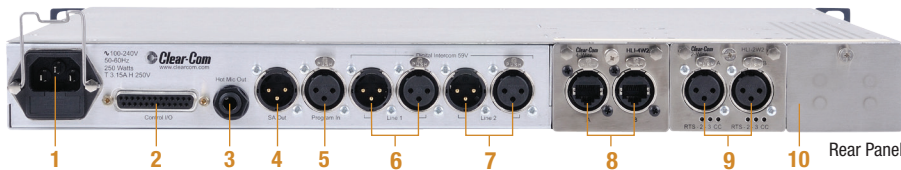
any beltack has access to any two of the available active intercom channels. In addition, audio and control data is embedded onto each of the powered circuits throughout the system. Redundant connections between systems are possible with a returned cable on the end of a daisy-chain. Administrators of the system can lock or unlock parameters for users via the main station's Administration menu.

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 RTS intercom to the HMS-4X Main Stations.

KEY FEATURES AND BENEFITS

- Up to 3 Main Stations can be linked over LAN
- Up to 12 networked channels of audio
- 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



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)
Limiter:	+23dB

The following specified for a route to four-wire output at 0dBu out:

Mic Gain:	60dB (Dynamic), 45dB (Electret)
Frequency Response:	300Hz – 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

Rear Panel

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

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)

Notice About Specifications

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