HRM-4X Remote Station

HRM-4X

The HRM-4X is a 4-channel 1RU digital partyline headset and speaker remote station that connects to HelixNet Main Stations over Microphone or Ethernet cables and can be locally powered via an external power supply or third party Power-over-Ethernet (PoE) power source.

DESCRIPTION

The HRM-4X is a 4-channel digital partyline remote station that connects with the HMS-4X main station and other remote stations using various cable types, including a single shielded twisted-pair cable (mic, CAT5 or CAT6 cables). The 1RU rack-mountable station provides access to four simultaneous channels of intercom communication, plus assignable program audio. The front panel has separate controls for the four communication channels.

OPERATION

The HRM-4X front panel includes a speaker with a rotary encoder level control and multi-color LED level indicator. The station has separate buttons to activate the headset or the gooseneck mic. User controls include OLED displays, momentary/latching Talk button, Call button and rotary encoder level controls per channel. When the front panel Menu button is pressed, the four OLED displays, acting in conjunction with each other in a flat menu structure, also enable the programming of station parameters. Access to channels and other functions are assignable through the menu.

POWER OPTIONS

When using a combination of power options, the priority of power is applied; local power first, PoE second, then Powerline. The Remote Station receives audio data, control data, and DC power via the same Powerline cable connection to a HMS-4X Main Station. A Powerline connection draws power directly from the Main Station, which can support ten beltpacks, three to five Remote or Speaker Stations or a combination of each per Powerline output. When using a local AC/DC power adaptor, an additional 20 Remote or Speaker Stations can be supported on each Powerline circuit. Additionally, the Remote Station has the capability to be locally powered via an external power supply or a third party Power-over-Ethernet (POE) power source. When using PoE power source exclusively, power is drawn over an Ethernet cable, which can support up to 60 additional Remote or Speaker Stations. The HLI-ET2 Ethernet module is required in the HMS-4X Main Station for Ethernet connection of remote devices.

KEY FEATURES AND BENEFITS

- For use with the HMS-4X HelixNet Main Station
- Access to all networked channels of audio from Main Station
- Up to 12 networked channels of audio
- Large format yellow OLED, 10-character label displays
- Connects to Main Station over mic or Ethernet cable
- Powered by Powerline, PoE or AC/DC adapter (universal)
- Rotary channel level controls
- Speaker and Program level controls
- Line/LAN Status indication

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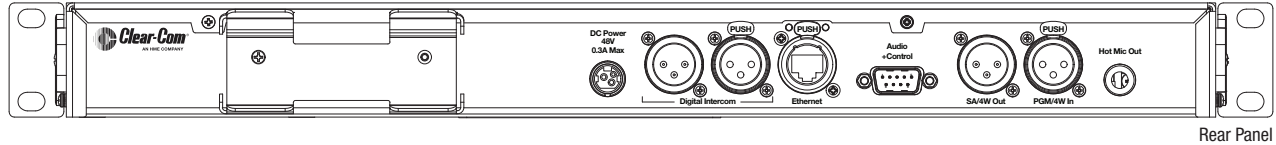
Rear Panel

TECHNICAL SPECIFICATIONS

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

Channels

Four local from any networked Main Station
One local and any networked program audio feeds (Assignable to intercom channels)

Connectors

Intercom Line:	(1) 3-pin XLR-M (1) 3-pin XLR-F
Ethernet/PoE:	Ethercon RJ-45
Headset:	4-pin XLR–M
Gooseneck Mic:	3-pin Tuchel
USB:	Type A
Program:	3-pin XLR–F
SA (Stage Announce):	3-pin XLR–M
Hot Mic/IFB Interface:	1/4" (0.64 cm) phone jack
GPIO:	9 way D-type male (1xGPI, 1xGPO)
DC Power:	3-pin to AC adapter (provided)

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)
Max Power:	5W

The following specified for a route from a four-wire input at 0dBu in:

Max Gain:	0dB
Frequency Response:	180Hz – 11kHz +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 (Remote Station)

Via AC Adapter:

Input Voltage Range:	100 - 240VAC
Input Frequency Range:	50 - 60Hz
Input Power:	<= 250VAC
AC Adapter Power Connector:	IEC60320-1-C14

Via Power over Ethernet (PoE):

Connector:	RJ-45
Conforms to PoE standard:	IEEE 802.3af-2003
Power Required:	13W

Environmental

Max temperature is 40ºC (104ºF)
0 - 90% relative humidity

Dimensions

19" W x 1.75" H x 6.4" D
(483 mm x 44 mm x 165 mm)

Weight

4lbs (1.8kg)

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.

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