

HelixNet 4-Wire Interface Module

Digital Partyline Solutions

Linking
People
Together



HLI-4W2

Key Features and Benefits

Interface

- 4-wire interface for HMS-4X²
- Transformer isolated
- Level and VOX control
- Clear-Com call signal

The HelixNet System

- Wired Partyline - Networked
- Flexible cabling
- Up to 24 Channels – Licensed
- Program Audio user level control

Effortless Management

- Fast front panel control & configuration
- Easy to use CCM browser configuration
- Plug-and-go with auto discovery
- Central upgrades from main station

HelixNet[®] is a networked partyline intercom with up to 24 channels and Program Audio over XLR, LAN or WAN.

Description

The HelixNet HLI-4W2 is a dual 4-wire interface module for the HMS-4X² main station.

Interfacing

HelixNet 4-wire module's 4-wire analog transformer and electrically isolated interfaces are assignable to any channel in the HelixNet system and provide discreet analog line-level input and output. The 4-wire ports allow connectivity to any 4-wire intercom system, cameras, telephone circuits, stage announce, recorders or any other generic audio devices. Level control and VOX/Gate capability is provided for each interface to accommodate the connected device.

HelixNet 4-wire module include call signaling circuits when used with compatible Clear-Com devices such as Eclipse[®] HX matrices, Arcadia Central Station, FreeSpeak Edge and FreeSpeak II[®] Base II base stations.

Local and Central Management Options

HelixNet 4-wire module can be added to any HMS-4X main station with an available option slot. Once installed, any channel can be independently assigned to either 4-wire port locally on the HMS-4X front panel or centrally from the Core Configuration Manager[™] (CCM¹).

Pin	Function
1	RS422 data TX (+)
2	RS422 data TX (-)
3	Audio to matrix (+)
4	Audio from matrix (+)
5	Audio from matrix (-)
6	Audio to matrix (-)
7	RS422 data RX (+)
8	RS422 data RX (-)

¹CCM requires HLI-ET2

²HMS-4X is a legacy product

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Technical Specifications

Connectors

4-wire: (2) EtherCON RJ45

4-wire Option Module Inputs

Maximum Level Before Clipping: 18dBu

Nominal Input Level: 0dBu (selectable)

Input Impedance: $\geq 10K\Omega$

Route to 4-wire output at 0dBu in:

Frequency Response: 20Hz - 10kHz $\pm 3dB$

Distortion: $< 0.2\%$ THD @ 1kHz

Noise: $< -65dBu$

4-wire Option Module Outputs

Maximum Level Before Clipping: 18dBu

Nominal Output Level: 0dBu (selectable)

Output Impedance: $\leq 100\Omega$

Route to 4-wire input at 0dBu in:

Frequency Response: 300Hz - 12kHz $\pm 3dB$

Distortion: $< 0.1\%$ THD @ 1kHz

Noise: $< -55dBu$

Dimensions

2.2 x 7.4 x 1.5in (HxWxD)

(57 x 187 x 39mm)

Weight

13oz (0.38kg)

Network Specifications

(Firmware Version 4.5+)

Network Protocols

Ethernet IPv4-Unicast Audio and Control

mDNS-Multicast Device Discovery

Layer 3 routable with mDNS function

limitations

HTTP-Management

RTP-Audio Transport

WavPack-Audio Codec

Network Ports

Unicast:

Port 80 TCP-System Management

Port 6001 TCP-System Management

Port 6001 UDP-Audio Streams

Multicast:

Port 5353 UDP-mDNS, Names, Discovery

Network Parameters

HMS-4X² Endpoint Resource Use:

1 per active port

Bandwidth:

300 (max) kbps from each active port to HMS

1200 (max) kbps from HMS to each active port

Network Jitter Tolerance:

$\leq 128ms$ jitter buffer per audio stream receiver

automatically adjusted to network performance

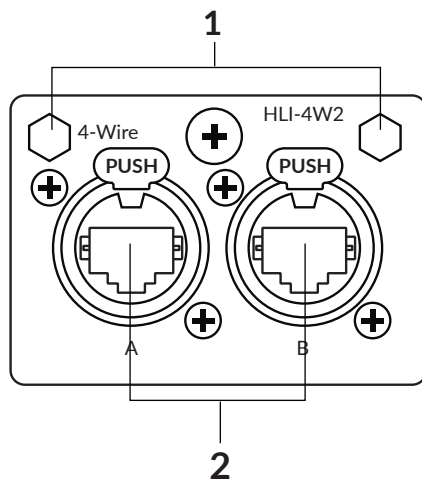
QoS Tags:

DSCP=34, Assured Forwarding (AF=41)

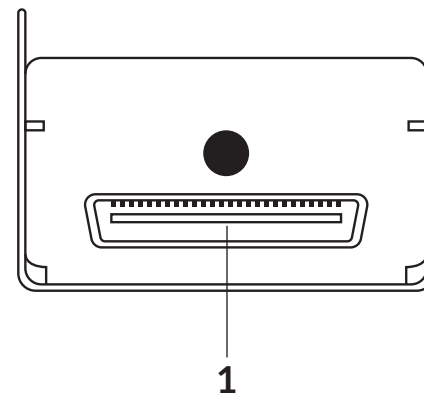
System Reserved IP Range:

10.0.0.0/8 for endpoints

Front



Back



Legend

Front

1. Handle mounting point
2. RJ45 connector

Back

1. Blade connector to HelixNet Main Station option slot

Order Code

HLI-4W2

