

Hx

Digital hybrid telephone interface

**“In the mid-1980s,
Telos pioneered the
very first digital adaptive
telephone hybrid.”**

Since then

Our POTS phone hybrids have earned a worldwide reputation for delivering clean, clear caller audio, even from callers using mobile phones.

The new Telos Hx1 and Hx2 represent

The highest state-of-the-art in hybrid performance, with Telos processing technologies that take the POTS hybrid to a new level of consistently superior performance, regardless of telephone line characteristics.

Inside the single-hybrid Hx1 and dualhybrid Hx2

You'll find our most advanced hybrid technology with new features that sweeten and control caller audio better than ever before. Hx hybrids come standard with features you won't find in other POTS hybrids, like Auto-Answer, caller disconnect detection, sophisticated new audioleveling and anti-feedback routines for enhanced open-speaker applications, call screening and line-hold features, and front-panel send and receive audio metering — plus much, much more. (Just take a look at the specs and you'll see what we mean.)



FEATURES:

- Separate Send level and Receive level meters for each hybrid.
- Status Symbols make life easier for producers and talent with their animated high-contrast icon display of line status.
- Place caller on-hold via front panel button.
- Auto-Answer with selectable ring count.
- Worldwide disconnect signal detection. (loop drop, dial tone, or re-order tone)
- Input/output via analog XLR. (Optional AES3 I/O module for Hx2)
- Input switchable between MIC or LINE levels.
- Internal universal power supply.
- Our best, most advanced hybrid algorithms.
- New symmetrical wide-range AGC and Dynamic EQ by Omnia, with adjustable gain settings.
- Studio adaption and pitch shifter help prevent feedback in situations where open speakers are required.
- Adjustable caller override improves performance and allows you to individualize the degree to which the announcer ducks the caller audio.
- Digital Dynamic EQ and adjustable smart leveler keeps audio spectrally consistent from call to call.
- New EQ High and EQ Low display meters for each hybrid.
- Incoming Line Capacity - (1) POTS Analog for Hx1, (2) POTS Analog for Hx2
- Audio Interfaces- Analog, AES (optional for Hx2)
- Hybrids - (1) High Performance, Digital for Hx1, (2) High Performance, Digital for Hx2
- Single 9-pin D-Sub connector to remotely turn each hybrid ON/OFF and to return
- Ringing and On-Air status for each hybrid.



Analog Inputs

Connector

XLR Female, Pin 2 High (Active Balanced with RF Protection)

Input Range

Select between MIC and LINE levels

Input Level

Adjustable from -10 to +4 dBu (nominal)

Impedance

Bridging, > 50K Ohms

Analog Clip Point

+21 dBu

Analog-to-Digital Converter Resolution

20 bits

Analog Outputs

Connector

XLR Male, Pin 3 High

Output Level

Nominal at +4 dBu

Impedance

<50 ohms

Digital-to-Analog Converter Resolution

24 bits

Headroom Before Clipping

20 dB headroom from 4dBu nominal levels

AES Digital Input / Output (Optional)

Plug-in module converts the XLR inputs and outputs to AES3.

Rate Conversion

Sample Rate Converters on all inputs and outputs. Inputs can accept 32, 44.1, and 48kHz rates. Clock for outputs may be sourced from the AES inputs or internally-generated 48 KHz.

Input Level

Nominal at -20 dBFs

Output Level

Nominal at -20 dBFs

Frequency Response

200 to 3400 Hz, +/- 1 dB

THD+N/Input

< 0.5% THD+N using 1 KHz sinewave

Signal to Noise

>90 dB

General purpose Input/Output

Single 9 pin D-Sub connector with 2 status outputs (Ringing and ON-AIR) and 2 control inputs (ON and OFF) per hybrid

Trans-hybrid Loss

> 55 dB