



ION 1.1

Wall Mount CobraNet® Interface



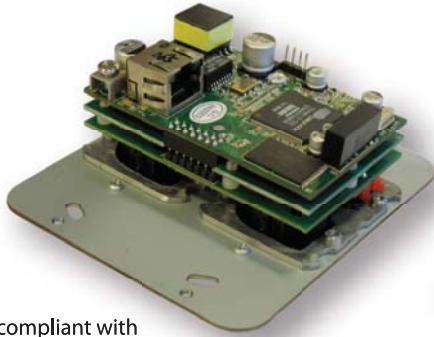
The ION1.1 is a 2-gang wall mount CobraNet® interfaces, with 2 analog audio inputs converted to CobraNet® and 2 CobraNet® inputs converted to analog audio.

Key Benefits

- Value added: The ION product line leverages additional value from the investment into the structured cable system, as the MTS ION interfaces are simply additional LAN 'endpoints' on the building network.
- On-board DSP: The ION1.1 onboard signal processing.
- Low cost LAN cable/Many channels: One UTP cable carries multiple audio channels (instead of one costly microphone cable for one audio channel)
- Low Cost LAN Connector/Reduced cost of labor: Replaces the skilled labor and long hours required to solder terminate, impedance check and polarity check specialist XLR/RCA audio connectors with the widely available skillset required to crimp/terminate RJ45 connectors.
- Rapid deployment: Critical path delivery is dramatically reduced, as one technician can terminate and test an entire ballroom (say 48 ION UTP ports) in a morning compared to days for an analog solution with patch bays
- Aesthetics: Fits standard backboxes and decorative faceplates in different finishes to suit the needs of the creative consultants
- Future proofed: Once the audio system is part of the structured cabling solution, then upgrading to future audio network products is 'plug and play'.
- Integration: Simple integration with the Building Management System (BMS)
- Eliminates noise problems: Early conversion to digital eliminates the usual audio buzz & hum problems
- Rapid Configuration: The network addressing solution also allows complex patching and room combining to be achieved in seconds. For example, the configuration of a banquet room can be quickly changed from a daytime corporate function to an evening event.
- Reliability: Early conversion to Ethernet increases system reliability, as the system is not dependent on a single point of failure in the control room
- Pro-Audio compliant: Meets audio performance and signal interfacing needs for both consumer and professional audio applications.
- PoE compliant: No additional power supply is needed

DETAILS

The ION1.1 is a network "Endpoint", where the audio signal is converted to/from a CobraNet® stream "at the wall".



The ION1.1 is fully compliant with the CobraNet® protocol and will connect to any 3rd party Control Room DSP solution. Converting to CobraNet® at the wall reduces problems with buzz, hum, ground loops and other cable issues. In addition, the system design no longer needs special isolation and impedance matching interfaces to connect a customer's laptop via a long analog cable back to the AV switcher in the control room.

The ION1.1 can also co-exist with the building Data traffic, usually on their own VLAN. Combining the audio and data networks will leverage additional value from the structured cabling investment, taking 10-15% off the cost of the audio system budget and 50% off the system deployment time.

The ION1.1 can be patched electronically though network addressing. Even unskilled Banquet staff can set up a system at the click of a mouse - a particularly important feature in Hotels and Convention centers, where every day is a new setup and speed is essential.

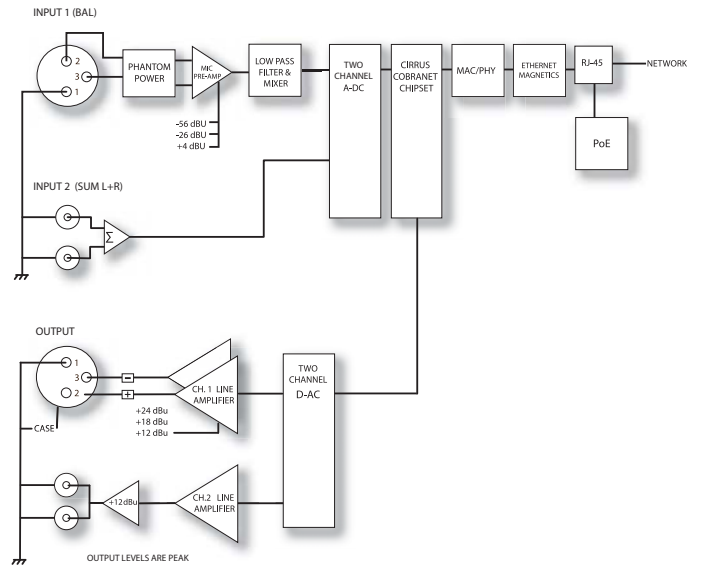
The ION1.1 offers a 'future-proofing' benefit. The act of connecting the wall plates to the Ethernet network automatically future-proofs the cable solution. Any new product or protocols will be Ethernet compliant and thus able to use the same cable and network infrastructure.

The ION1.1 are only a fraction of the cost of most 8-channel CobraNet® interfaces. All the benefits of converting the audio system into a set of network endpoints costs no more than a standard control room solution.

Product Details

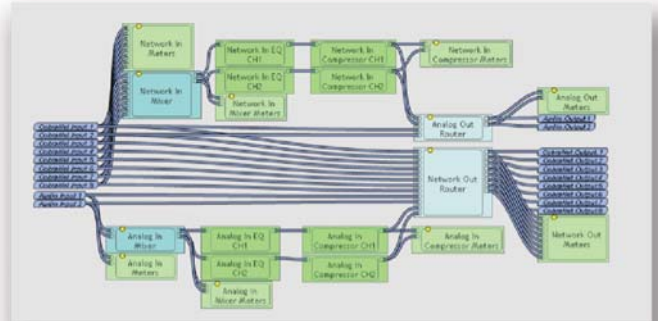
The ION1.1 is a CobraNet® Analog audio to LAN interface in a convenient 2-gang wall mount package. The interfaces are designed to fit commonly available decorative wall plates and backboxes from Leviton (Decora), MK, etc. This feature allows the installer to meet the Interior Designer or Architects requirements for color and finish.

The ION1.1 input section converts 2 channels of analog Mic/Line audio input into a CobraNet® audio stream. Channel 1 is the RCA inputs, which accepts a -8dBu Consumer level signal (+12dbu peak) and where left & right are summed to mono. Channel 2 is the XLR input, which accepts a +4dBu balanced audio signal and have three different input sensitivities ...+4dBu (line level), -26dBu (electret condenser microphones) and -56dBu (dynamic microphones). Phantom power (12volt) is always present on the XLR inputs to allow for the different sensitivities of condenser microphones.



The ION1.1 output section converts 2 channels of incoming CobraNet® data stream back into analog audio signals. Channel 1 is the RCA output, which are -8dBu nominal (+12dBu peak) and a mono output (ie left & right channels have the same signal). Channel 2 is the balanced XLR output and has three different peak output sensitivities ...+24dBu (ProAudio), +18dBu (Prosumer) and +12dBu (Consumer and amplifiers).

The ION1.1 has 100MIPS of internal DSP processing, DSP schematic as shown below.



The input has 2 analog inputs each with a processing side chain of 2x2 Mixer, HPF, LPF, a 5 band parametric EQ and a peak Compressor. The 2 analog channels can be transmitted on any of 1-4 outgoing network bundles. In addition, the 2 analog channels can be combined with the incoming network channels from other IONs to make a single 8 channel bundle for those CobraNet® DSP processors that can only accept 8 channel bundles.

The analog output has 8 channels of network input feeding an 8x2 mixer and HP, LP filters, an 8 band parametric EQ, and peak Compressor on each of the 2 analog output channels.

Remote control of the ION1.1 is via SNMP. MTS provides a configurable system software package (MTS Control) that uses Stardraw Control as the core engine (see screenshot of the ION0.2 Control UI below).

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Applications

- Hotels/Hospitality
- Convention Centers
- Corporate Meeting rooms
- Classrooms and Lecture rooms



Specifications

Frequency response: 20Hz-20kHz, +0/-1dB

THD: <0.12%

EIN: 20Hz-20kHz, less than 121dBm

Hum and Noise >70dB below rated output

ION1.1 Analog inputs (note RCA's sum to mono):

- Balanced XLR inputs: 2k Ω impedance, +24dBu peak, Phantom (12volts)

- XLR gain switch: 0dB (+4dBu nominal), +30dB and +60dB

- Unbalanced RCA inputs: 10 k Ω impedance, -8dBu nominal, +12dBu peak

ION1.1 Analog outputs (note RCA's are mono):

- Balanced XLR outputs: 200 Ω balanced, 100ohm unbalanced, 600ohm minimum load to preserve PoE stability. +24dBu peak

- XLR sensitivity switch: +24dbu, +18dBu, +12dbu (peak)

- Unbalanced RCA outputs: 10k Ω impedance, -8dBu nominal, +12dBu peak

ION1.1 CobraNet® output:

- 8 channels of CobraNet® streaming output, selectable from any of 4 bundle transmitters

- Full channel submapping of transmitters available.

ION1.1 CobraNet® input:

- 8 channels of CobraNet® streaming input, selectable from any of 8 bundle receivers.

- Full channel submapping of receivers available.

Power Supply: PoE

Control and Monitoring: SNMP,

Control Software: MTS-CONTROL, CN Discovery (CNDISCO)

Size: Fits standard 2-gang back box and Decora Faceplate. Rear PCB assy is 80mm (w) x 50mm (h) x 40mm (d).

Weight: 0.2kg (155x135x65mm & 0.33kg Packed).

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