

ION4.4 & ION8.8

CobraNet® Interfaces



MEDIA
TECHNOLOGY
SYSTEMS



The ION8.8 is a 1U rack mount CobraNet® interface with 8 analog mic/line inputs and 8 analog line level outputs. Its smaller brother, the ION4.4, is a 1/2 rack unit with 4 inputs and 4 outputs.

Although there are many CobraNet® interfaces in the market, the ION4.4 & ION8.8 are different - they are “set and forget” products that sell for around half the price of most available brands. The cost savings were generated by stripping out all the ancillary contact closures, digital I/O ports, serial ports, relays, VCA's and wall controller ports found on other CobraNet® products.

The ION4.4 & ION8.8 were designed to meet the need of Customers and Installers for a line of ‘bare bones’ interfaces that lowered the cost of entry for a CobraNet® network solution. Market research found that less than 10% of projects used the control ports and less than 20% of inputs needed VCA controls on the mic/line inputs, so the ION4.4 & ION8.8 could be designed to meet that need without compromising audio quality.

The manual control of gain and phantom power also ensures that the ION4.4/8.8 will work with any brand of CobraNet® compliant DSP processor.

However, those microphone channels that DO need VCA control can still use the inputs on the 3rd party DSP. The rest of the audio I/O will connect to the ION4.4/8.8's, ie fixed microphones, wireless microphones, feeds to/from Audio-Visual switchers, plus conference, recording, production intercom and paging system feeds.

Replacing the 3rd party brand CobraNet® interfaces with the ION4.4/8.8 can reduce the cost of the Audio processing system by 30%-50%. This benefits the Installers profit margin, the Consultant's budget and the End User's cheque book. (See ION44/88 Bulletin 1 for full details).

KEY BENEFITS

Value for money

Eliminating the unnecessary control ports allow the ION4.4 and ION8.8 to ship at less than half the cost of most CobraNet® Interfaces.

Flexible mounting

The ION 4.4 can be mounted anywhere-risers, walls, cabinets, & even under a table. This enables conversion from analog audio as early as possible and eliminates long lines of analog audio cable between the source and the control room rack.

Simple to Configure

Just set the front panel gain and phantom power, give the device a network address and configuration is complete.

Works with any brand of CobraNet® DSP

The manual controls for phantom power and gain avoids any need to integrate remote control features with a 3rd party brand CobraNet® DSP processor.

Pro-Audio compliant

Meets audio performance and signal interfacing needs for both consumer and professional audio applications

APPLICATIONS

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

DETAILS

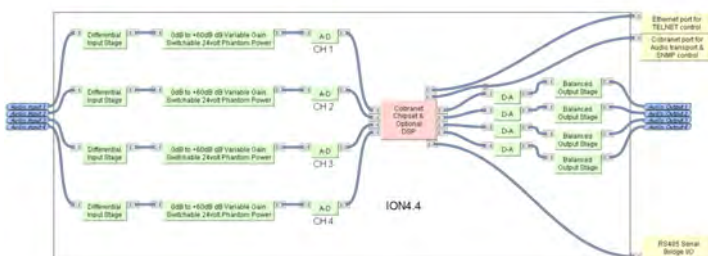
The front panel offers manual control of microphone gain (0-60dB) and phantom power (+24volts) for each channel. The LED's show phantom power, Input and Output level (-20dbu-green, -3dBu-red). The Power LED (blue) shows presence of the external +24volt DC supply.



The rear panel shows the CobraNet® and LAN network ports. The CobraNet® port allows for Audio streaming and Control via SNMP. The LAN port allows for Configuration using the MTS GUI or control using TELNET.

The Euroblock input and output connectors accept a +4dBu nominal max/+22dBu peak balanced audio signal

The 3 pin RS485 connector can bridge incoming RS485 serial data on to the network where the ION4.4/ION8.8 acts as a conduit to other devices on the CobraNet® network. See Cirrus Logic Programmers Manual for full details of how to use this feature.



System block diagram (above) of the ION4.4 (ION8.8 is identical, except for 4 more analog inputs and 4 more analog outputs).

SPECIFICATIONS

ION 4.4:

- 1/2 rack width 1U high CobraNet® interface: Riser, Wall, & Under-table mounting options (rack mount ears included)
- 4 Analog Mic/Line Inputs and 4 Analog Line level Outputs
- 16 Cobranet Inputs, 16 CobraNet® Outputs
- 20x20 Input/Output DSP Router

ION8.8:

- Full rack width 1U high CobraNet® interface
- 8 Analog Mic/Line Inputs and 8 Analog Line level Outputs
- 16 CobraNet® Inputs, 16 Cobranet Outputs
- 24x24 Input/Output DSP Router

Frequency response: 20Hz-20kHz, +/-3dB

THD: <1%

Input level: +4dBu nominal: +22dBu Clip

Output level: +4dBu nominal: +22dBu Clip

Input sensitivity: -56dBu (nominal) at maximum gain produces +4dBu (nominal). +4dBu (nominal) at minimum gain produces +4dBu (nominal)

Maximum gain: 60dB

Input: 6kohms balanced and RF filtered. EIN 20Hz-20kHz, less than 119dBu (+56dB gain setting)

Output: 150 ohms balanced, 600ohm minimum load

Hum and Noise >70dB below rated output

The ION4.4/ION8.8 also provides 100MIPS of embedded DSP processing for simple routing and processing, with Ducking, EQ filters, HP/LP filters and Compressors on each analog output channel. In addition the ION4.4/ION8.8 provides a 20x20/24x24 (respectively) matrix Input/Output router that can receive up to 16 incoming network audio streams plus the 4/8 local analog audio inputs and route to any of 16 outgoing network audio streams, plus the 4/8 local analog outputs



Internal DSP schematic (above) for the ION8.8 (ION4.4 is identical, except the I/O router has 4 less analog inputs and 4 less analog outputs).

The ION4.4 & ION8.8 both offer SNMP control of all parameters via the CobraNet® LAN port and TELNET control of all parameters via the Ethernet LAN port. The MTS GUI can be used to set up 8 presets, including a power up preset. MTS also provides a configurable system software package (MTS Control) that uses Stardraw Control as the core engine.

Connectors:

- All Analog I/O: Balanced 3.5mm Euroblock connectors
- Network: Split CobraNet® audio LAN port and Ethernet control LAN ports for VLAN traffic with professional standard Ethercon LAN connectors
- RS485 serial bridge I/O port: 3.5mm Euroblock connector
- Phantom Power: Front panel switchable phantom power of +24volts on each input

Indicators:

- Front panel bicolor LEDs for input and outputs with -20dbu (green) and -3dBu (red) trigger levels.
- Front panel red LED on each channel to indicate Phantom Power.
- Front panel Blue LED to indicate presence of 24volt DC supply.

DSP: 100MIPS internal DSP with Ducking, Compressor, HP/LP and 8 band Parametric on each analog output channel.

Power Supply: External 24volt AC supply, 12watts

Control and Monitoring: SNMP, TELNET

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

Size: ION8.8: Front panel 480mm (w) x 43.7mm (h), Rear panel 430mm (w) x 43.7mm (h), Chassis 220mm deep. ION4.4: Front panel 215mm (w) x 43.7mm (h), Rear Panel 215mm (w) x 43.7mm (h), Chassis 220mm deep overall.

Weight: ION8.8: 2.4kg (510x280x100mm & 3.0 kg Packed). ION4.4: 1.5kg (280x280x100mm & 2.0 kg packed).

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