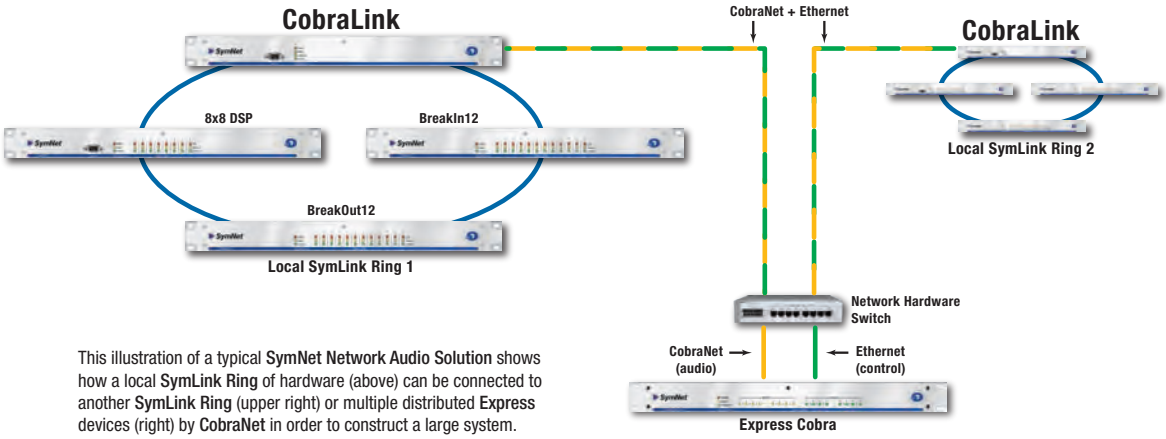
CobraLink

The CobraLink device functions as a translator between **SymLink™** and **CobraNet®** bus technologies. It has no onboard DSP. It allows the sharing of digital audio between SymLink rings, Express devices, and third-party CobraNet-compatible hardware including amplifiers and powered speaker systems. A maximum of thirty-one (31) CobraLink devices, with associated SymLink rings, can be configured as a single SymNet system.

The device includes 64 channels (32 transmit and 32 receive) of Cirrus Logic's industry-standard CobraNet protocol for audio over Ethernet.

CobraNet-to-SymLink routing is configured entirely by the SymNet Designer software.

This software-controlled-hardware scheme allows system designers an enormous amount of flexibility by supporting broadcast or multicast bussing in incremental send or return bundles, up to eight channel groups, with selectable latency options, selectable bit-depth options, and direct network addressability from SymNet Designer over Ethernet. When incorporated in a SymLink Ring, CobraLink hardware occupies the number 1 (Ring Master) position.



This illustration of a typical **SymNet Network Audio Solution** shows how a local **SymLink Ring** of hardware (above) can be connected to another **SymLink Ring** (upper right) or multiple distributed **Express** devices (right) by **CobraNet** in order to construct a large system.

Specifications

GENERAL SPECIFICATIONS	
RS-232 host serial I/O	115.2 or 57.6 kbaud, 8 data bits, 1 stop bit, no parity, no flow control wired straight-through, only pins 2, 3, and 5 required
RS-232 accessory serial I/O	38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control wired straight-through, only pins 2, 3, and 5 required
RS-485 serial I/O	38.4 kbaud (default) 8 data bits, 1 stop bit, no parity, no flow control wired in parallel with STP cable.
SymLink Cable	Shielded CAT5, maximum device-to-device length = 10 meters
CobraNet Cable	Standard CAT5, maximum device-to-device length = 100 meters
Maximum devices per SymLink Ring	1
Maximum SymLink Rings	31
Maximum stored presets	1000

AUDIO SPECIFICATIONS	
Dynamic range	144 dB
Maximum audio input channels	32
Maximum audio output channels	32

1. **Main Power:** Accepts power from Symetrix PS-4 (included) power supply only (100-240 VAC, 50-60 Hz, 6 VDC output, 20 Watts max).
2. **Device Config:** Configures the RS-232 port host mode baud rate and Ring Number (device address).
3. **SymLink:** Low-latency 64-channel audio and data bus. TRANSMIT connects to the next downstream SymLink device's receive port. RECEIVE connects to the previous SymLink device's transmit port. This forms the "SymLink Ring". Use shielded CAT5 cables less than 10 meters in length, standard straight-through wiring.
4. **RS-232:** Default serial communications interface for a 3rd party accessory controller. Port Settings: 38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control.
5. **RS-485:** Connects to a Control I/O, ARC-PS, ARC or other Symetrix SymNet family RS-485 controller, wired in parallel (A to A, B to B and GND to GND) using shielded twisted pair. Port Settings: 38.4 kbaud (default), 8 data bits, 1 stop bit, no parity, no flow control.
6. **Primary CobraNet:** 10/100 Base-T Ethernet port connects the SymLink Ring to a CobraNet network. Also provides SymNet Designer host control over IP. IP control must be setup from SymNet Designer via RS-232 first for security.
7. **Secondary CobraNet:** 10/100 Base-T Ethernet port allows for a complete secondary CobraNet network if all CobraNet devices on the network have Secondary CobraNet connections.

Mechanical Data

Item	Specifications	Remarks
Space Required	1U (WDH: 48.3 cm x 21.6 cm x 4.37 cm / 19 in x 8.5 in x 1.72 in). Depth does not include connector allowance.	Allow at least 1 inch additional clearance for rear panel connections. Additional depth may be required depending upon your specific wiring and connections.
Electrical	100 to 240 VAC, 50-60 Hz, 6 VDC output, 20W maximum.	No line voltage switching required.
Ventilation	Maximum recommended ambient operating temperature is 30 C / 86 F.	The ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths, curtains, etc.
Shipping Weight	6 kg (12 lbs.)	

Architect and Engineer Specifications: SymNet CobraLink.

The CobraNet interface shall provide CobraNet interconnect on two RJ-45 connectors, SymLink Bus transmit and receive ports on two RJ-45 connectors, RS-485 interface on one plug-in barrier-strip connector, host computer connection on one front panel 9-pin D-sub connector, and RS-232 control on one rear panel 9-pin D-sub connector, CobraNet audio shall operate digitally at a sample rate of 48 kHz. CobraNet audio channel count shall conform to established protocols and shall be limited to 32 transmit x 32 receive. The device shall have no onboard digital processing (DSP) capabilities. SymLink Bus connections shall allow sharing of digital audio within multi-device SymNet systems. CobraNet connections shall allow sharing of digital audio with other CobraNet-compatible hardware. Software shall be provided for connecting the device to other SymNet components, and configuring CobraNet communication. Ethernet or serial communications shall be utilized for software control and configuration. After initial programming, systems including CobraLink may be controlled via dedicated software control screens, third-party RS-232 control systems, and/or optional remote control devices. Software shall operate on a PC computer, with network card installed, running Windows® 2000/XP. **The CobraNet interface shall be CE marked, CSA tested to UL 60065,**

The CobraNet interface shall be CobraLink.