XCI Communication-interface Board

Intelligent Generic Interface Board for Serial Data Formats

- Operating-panel interface for controlling the NEXUS
- Peripheral control
- Communication with external devices
- 4 interface ports per board
- Supported protocols: RS 232 DCE, RS 232 DTE, RS 422 AES-15, RS 422 SMPTE/EBU, MIDI, Stage Tec protocol, Ethernet
- SD memory-card slot for loading NEXUS snapshots

The NEXUS intelligent generic communication-interface board supplements the functionality of a NEXUS audio network with control functions: The XCI board allows external devices to be remote-controlled and control protocols queried. Suggested applications include the provision of connectivity to operating panels for controlling NEXUS functions or remote-controlling peripheral units such as power amplifiers or audio recorders. Other protocols and/or control functions for other devices can be implemented in addition to the pre-programmed standard functions.

All control information required by the XCI board is transferred via the fibre-optic lines of the NEXUS network, so no additional cabling is necessary. The control functionality is fully integrated into NEXUS, and the board can therefore be operated from anywhere on the network.

The XCI board is shipped with a project-specific hardware configuration and various software modules. To fulfil the requirements imposed by its universal character, the board is equipped with a dedicated processor, memory, and firmware. A buffer based on a lithium battery or an accumulator preserves the user data stored to the SRAM memory even when the operating voltage is not present for an extended time.

Ports

The XCI board offers four interfaces that allow for flexible configuration to suit a wide variety of implementations. 9-pin D-Sub interface ports are a standard feature, and the board supports a variety of data formats (e.g. MIDI).

Applications

The range of peripheral units supported is constantly being extended. For example, the following standard configurations can be realised (other configurations are available on request):

› **Remote-Controlling Machines from the AURUS or CANTUS Interfaces** Denon DN-C680; Fostex D 15; Sony MDS-B5; Studer A 810, A 820, A 812, D 730, D 731, D 780; Tascam DA 38, DA 60, DA 78, DA 88, DA 98, MD 801; Pyramis, Sequoia, etc.
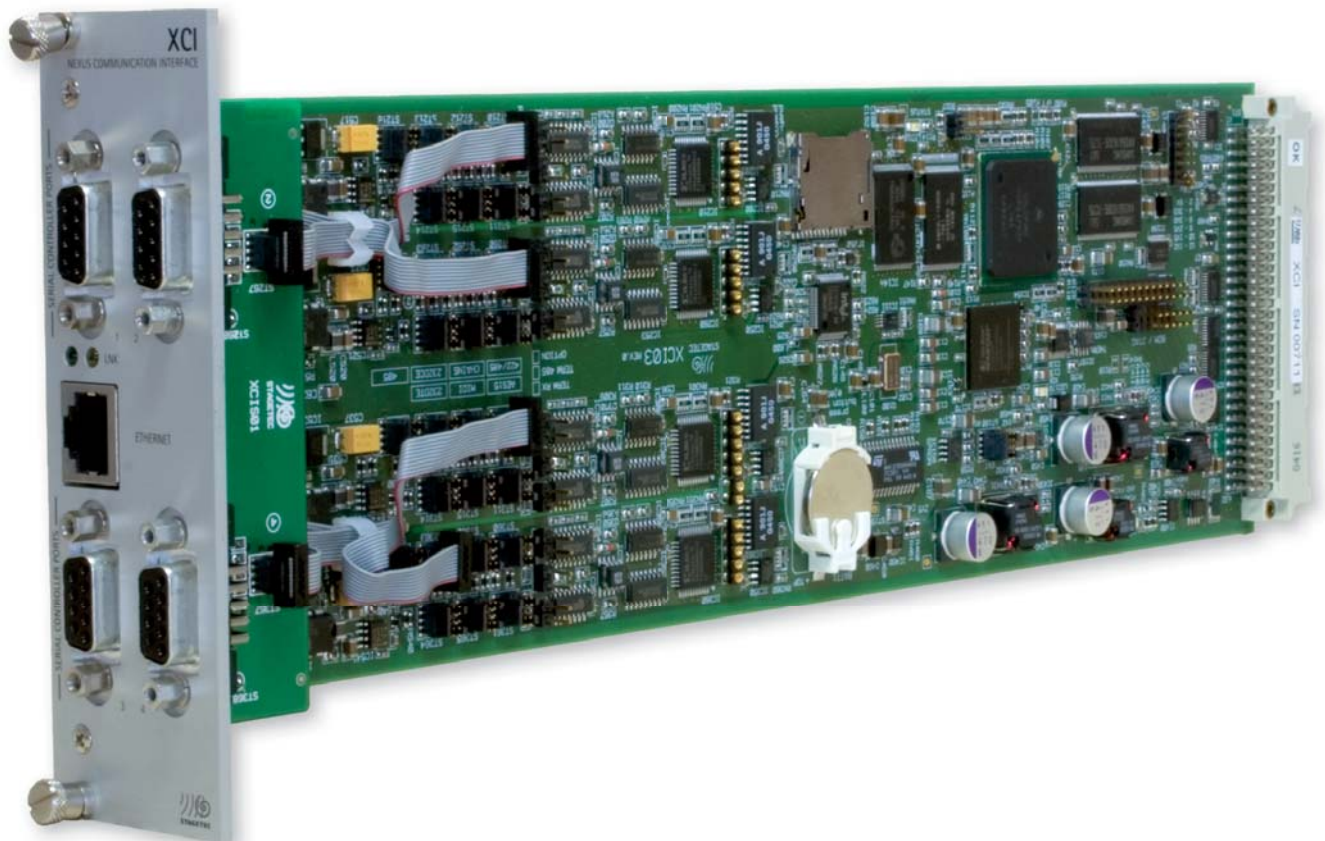
› **Controlling Power Amplifiers** SALZBRENNER STAGETEC MEDIAGROUP, d&b, QSC 800, Renkus-Heinz

› **Controlling NEXUS Functions** High-speed DSP interface for controlling Stage Tec controllers, operation via BFE controllers

› **Data Transmission** Interface for transferring project-specific label data (on request)

Options

The XCI board is supplied with a customer-specific configuration. The actual components vary depending on the types of interface required. (Interfaces of different types can be mixed on a single board.)

NEXUS Digital Audio Routing and Interconnect System

XCI Versions	
4 HP	**8 HP**
1 Ethernet	1 Ethernet
2 serial unterface ports	4 serial unterface ports

XCIo3 Specifications		
Memory	512 kB to 2 MB SRAM, battery-backed	
	flash ROM	
Interface types	maximum 4 galvanically isolated serial interface ports	
	RS 232, RS 422, RS 485, MIDI, AURUS/- and CANTUS/NEXUS-control modul, Ethernet-Port	
RS 232 interface — DTE/DCE	application: e.g. machine control	
	terminals	D-Sub terminal (9-pole), female, galvanically isolated
	baud rate	38.4 KBaud (typ.), 115.2 KBaud (max.)
	cable length	10 m/32.8' recommended
RS 422/485 interface (AES-15 compliant)	Sample application: 9-pin protocol compliant control of external machines	
	terminals	D-Sub terminal (9-pole), female, galvanically isolated
	baud rate	38.4 KBaud (typ.), 115.2 KBaud (max.)
	input level	–7 to 12 V max.
	I/O impedance	120 ohm
	cable length	100 m/330' (max.)@110-ohm lead, ±20%
MIDI interface	application: e.g. control using MIDI program changes	
	terminals	D-Sub terminal (9-pole), female, galvanically isolated
	current range	5 mA
	baud rate	31.25 kBaud
	cable length	5 m (max.)
Stage Tec interface	application: e.g. control using Stage tec protocol	
	terminals	D-Sub terminal (9-pole), female, galvanically isolated
	I/O voltage	4 balanced line couples (RS 422 compliant)
	I/O impedance	110 ohm
	baud rate	1 MBaud (max.)
	cable length	100 m
Ethernet port	data rate	10/100 Mbit
Power supply	Voltage	+4.75 to 5.25 V
	Current	900 mA
Operating conditions	Temperature range	0 to +50 °C / 32 to 122 °F
	Humidity	90% (max.), non-condensing
Storage conditions	Temperature range	-35 to +70 °C / -31 to 158 °F
	Humidity	90% (max.), non-condensing
Physical specifications	General	board for 19" module frame; 3 U, 340 mm / 13.39"
	Front panel	4 HP (20.2 mm × 128.5 mm / 0.8 × 5.06") 8 HP (40.2 mm × 128.5 mm / 1.58 × 5.06")
	Required space	1
	Weight	0.43 kg

NEXUS Digital Audio Routing and Interconnect System