



XCI

communication interface



A U D I O E X C E L L E N C E

The serial control interface between the NEXUS network and the outside world

The serial interfaces of the XCI card support RS-232, RS-422, RS-485, MIDI and Ethernet. The board can be used universally as a control interface between the NEXUS system and external devices, with a variety of common protocols already available on the board. The deep integration of the XCI card into the NEXUS Logic Control macro control allows extremely complex applications and bidirectional interactions between NEXUS and external systems to be implemented.

The XCI cards are available in two different versions: as a variant with two outgoing serial interfaces in 4 HP width and in double width with four serial ports accessible from the front. Each board also has one RJ45 Ethernet port, on which the electrical specifications of each individual interface can be configured separately. RS-232, RS-422, RS-485 and MIDI are available, supporting both AES15 and SMPTE/EBU specifications. Protocols for a variety of external devices and systems are already available. Conversely, the common, large control systems also support the extensively implemented NEXUS protocol and are able to execute all important commands in the NEXUS network and monitor live, online desired parameters such as certain levels, for example.

4 independent serial interfaces

In the 8TE wide version, the XCI has four independent serial interfaces that are electrically isolated from each other and from the system. R232, R422, R485 and MIDI allow bidirectional communication with the NEXUS system. Which protocol is used can be configured manually for each interface on the printed circuit board's patch panel.

Self-sufficient processor system

An integrated Coldfire processor ensures that the computer resources required by the protocols do not affect the NEXUS system.

Integrated real-time clock

Daniel didn't even know anything about

the integrated real-time clock, which seems to exist on the XACI, so it can be assumed that although it is listed in the NEXUS technical manual, it is not worth mentioning here either.

Buffered supply voltage

To bridge brief power failures or to safely terminate write accesses after switching off, the static working memory SRAM is battery-buffered.

Electronic fuses of the interfaces

In addition to protecting the module with a fuse, the interfaces are individually fused. When this is activated, the LED associated with the interface goes out.

Connections			
Variant: 4 Ports		2 x 8TE	
D-Sub 9 Socked female	4x	RS 232 DCE, RS 232 DTE, RS 422 AES 15, RS 422 SMPTE/ EBU, MIDI, Stage Tec-Protocol	bidirektional
RJ45	1x	IP	bidirektional
Variant: 2 Ports		2 x 4TE	
D-Sub 9 Socked female	2x	RS 232 DCE, RS 232 DTE, RS 422 AES 15, RS 422 SMPTE/ EBU, MIDI, Stage Tec-Protocol	bidirektional
RJ45	1x	IP	bidirektional

Technical specifications	
Interface RS 232	
Data rate	38.4 Kbps (typ.); 115.2 Kbps (max.)

Technical specifications	
Input impedance	5 kohm (typ.)
Input voltage (max.)	-30...30 V
Output voltage	±8 V @ 3-kohm load (typ.)
Cable length	10 m (max., recommended)
AES-15 compliant RS 422/485 port	
Data rate	38.4 Kbps (typ.); 115.2 Kbps (max.)
Input impedance	120 ohm/5 kohm, jumper-selectable
Input voltage (max.)	-7...12 V
Diff. output voltage	3.1 V (typ.) @ 100-ohm load
Cable length	10 m (max., recommended)
SMPTE/EBU-compliant RS 422/485 port	
Data rate	38.4 Kbps (typ.); 115.2 Kbps (max.)
Input impedance	120 ohm/5 kohm, jumper-selectable
Input voltage (max.)	-7...12 V
Diff. output voltage	3.1 V (typ.) @ 100-ohm load
MIDI interface	
Output voltage	4.5 V (typ.), 5 mA (max.)
Output current	5 mA
Input voltage (max.)	-10...10 V
Input current OFF	< 0,25 mA
Input current ON	> 5 mA (15 mA max.)
Data rate	31.25 Kbps
Cable length	5 m (as per MIDI specification)
Stage Tec panel-link interface	
Input and output	4 balanced wire pairs as per RS 422 specification
Data rate	1 Mbps (max.)
Input impedance	120 ohm/5 kohm, jumper-selectable
Input voltage (max.)	-7...12 V
Diff. output voltage	3.1 V (typ.) @ 100-ohm load
Cable length	100 m carrying 110-ohm line (max., recommended)
Ethernet interface	
Data rate	10/100 Mbps
Operation conditions	
Temperature range	0 °C bis +50 °C
max humidity	max. 90 %, non-condensing
Storage conditions	
Temperature range	-35 °C bis +70 °C
max humidity	max. 90 %, non-condensing
Power supply	
Voltage	+4,75...5,25 V
Current	900 mA
Mechanical data	
Weight	0,30 kg

Stage Tec NEXUS: A global reference!*



*The map shows selected reference locations. To date more than 1,000 Stage Tec NEXUS systems have been delivered and installed worldwide.

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