



XDA+

Digital to analog converter



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

The universal line level outputs up to +24 dBu maximum level

The XDA+ board is intended for connecting devices that require an analog line level at the input. The board has eight outputs, is available with different connectors and offers outstanding audio values.

The 24-bit converters of the XDA+ output cards feature unbeatable 131 dB(A) dynamics and a high maximum output level of +24 dBu. XDA+ cards are therefore suitable for the connection of all line level devices even for the highest demands. The extremely low distortion factor is a further criterion in favor of Stage Tec's converter technology. The very low signal delay of only 10 samples makes these fast converters predestined for all time-critical applications. The sophisticated Stage Tec DSP converter technology sets the standard for tonal neutrality with the lowest latency at the same time! Compared to conventional circuit technology, the integrated, transformer-insulated output stage scores with insensitivity to magnetic fields, high symmetry and a small output capacitance.

The front panel is available in different versions with XLR, D-Sub or RJ45 connectors, enabling easy integration into any setups: cards with XLR connectors allow the construction of connection panels without further effort; the version with Sub-D connectors is the preferred solution for direct cabling within racks, and the version with RJ45 sockets is the intelligent solution for fixed installations with separate connection boxes. (Read more under „Use Cases“.)

131 dB dynamic range and +24 dBu maximum level

In addition, Stage Tec converters have an extremely homogeneous noise spectrum, so that even at this very high dynamic range noise is almost imperceptible.

Output stages transformer isolated

Stage Tec's transformer-insulated outputs have clear advantages over conventional circuits: They are insensitive to magnetic fields and have a lower distortion factor, especially at high and low levels and at low frequencies. They also offer high symmetry, galvanic isolation and a lower output capacitance.

Flexible use thanks to versions with XLR, Sub-D or RJ45 connections

This module can optionally be supplied with different front panels, the electrical conversion remains the same. XLR sockets are suitable for constantly changing setups, while the Sub-D version is suitable for permanently wired installations. With the RJ45 version, 4 channels each are connected to one socket and enable fast and cost-effective cable laying with conventional Cat5 cables (or better). For signal sources that are to be connected locally via XLR connectors, the RJ45-ADP adapter circuit board, which converts RJ45 back to XLR, is available as an option.

Connections

Variant: XLR			
2 x 8TE			
XLR female	8x	Line Level	Ausgang
Variant: D-Sub 25			
1 x 4TE			
D-Sub 25 Socked female	1x	Line Level	Ausgang
Variant: RJ45			
1 x 4TE			
RJ45	2x	Line Level	Ausgang

Technical specifications	
Configuration, available separately for each channel	
	Ground bonding, liftable, on the output port (XLR only) Short-circuit-proof Insusceptible to inadvertent phantom-power routing Analog mute when enabling or disabling the power supply
D/A conversion	
Resolution	24 bit, 128 times oversampling
Audio data	
Output levels	0...24 dBu @ > 600 ohm load; adjustable in 1-dB steps; or 0...15 dBu @ > 300 ohm load
Dielectric strength	Common-mode voltage: < ±200 V (DC), < 250 V (AC) (1 min. max.); ESD protection: 15 kV
Frequency response	20...20,000 Hz (+0 dB, -0.2 dB), integrated DC filters
Output impedance	19 Ohm (typ.)
CMR (output impedance)	> 60 dB @ 20...20,000 Hz; 120 dB @ 50 Hz (typ.); 80 dB @ 20 kHz (typ.)
Gain	-63...15 dB, clickfree adjustment in 1-dB steps; plus muting
Distortion factor (THD+N)	0.003 % (typ.) @ 24 dBu; < 0.006 % (typ.) @ -20...+24 dBu, < 0.02 % guaranteed; 0.0006 % (typ.) @ 4 dBu; -68 dB @ -60 dBFS
Dynamic range	@ 0 dBFS = 24 dBu: 131 dB (A) (typ.); 128 dB RMS (typ.)
Idle channel noise	124...-128 dBFS (RMS) (typ.); 93 dBqp (CCIR 1K) (typ.); -105 dBu (typ.) (CCIR 2K RMS)
Crosstalk attenuation	> 100 dB @ 20...20,000 Hz (> 130 dB typ.)
HF resistance	HF-demodulation resistant according to IRT standards (»IRT-Pflichtenheft 3/5«) and European standards
EMC	EN 55022, Class B (with XLR plugs inserted), and EN 55013
Sample rate	44,1 kHz, 48 kHz, 88,2 kHz, 96 kHz (NEXUS system clock)
Latency	< 0.23 ms @ 48 kHz sample rate
Operation conditions	
Temperature range	0° C to +50° C
Max humidity	max. 90 %, non-condensing
Storage conditions	
Temperature range	-35° C to +70° C
Max humidity	max. 90 %, non-condensing
Power supply	
Voltage	+4,9...5,2 V
Current	1,2 A (2 A bei max. Last)
Mechanical data	
Weight	0,24 kg
Note	In the XLR version, the two front panels are connected with a ribbon cable.

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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