



XFAD

Crossfader assembly



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

Instead of switching hard, now gently fade over crosspoints

The XFAD card allows user-defined crossfading of crosspoints of the audio matrix. This board makes possible in the NEXUS system what would otherwise only be possible in an audio matrix via a mixing console. Due to the inaudible switching processes of NEXUS, the use of an XFAD board is not limited to a few, specific channels, but can always fade other inputs to other outputs.

When switching signal sources in a switching field system, one often wants to realize soft transitions instead of hard circuits. With the XFAD board, signal sources can be faded over without the need for a mixing console. This practical solution guarantees a reliable, fully flexible workflow. XFAD boards have no external connections. Internally, from the NEXUS matrix, the board has eight inputs and eight outputs connected via a 64 node matrix. On the DSP of the module a fader is realized for each input, which can drive a fade alone or synchronously with other faders. This means that a maximum of eight mono fade-in and fade-out processes can be active at the same time. Alternatively, grouped together, this results in two stereo fades, for example. When operating at 96 kHz, this number is halved. All outputs have a digital level control to enable individual gain staging. The fade times can be set separately for each process and can range from 40 milliseconds to 2,600 seconds. The aperture curves can be selected from eight defined curves; these can also be freely defined by the user. Blending can

be started manually via the NEXUS operating program. However, the possibilities offered by NEXUS Logic Control are likely to be more interesting. This macro control included in every NEXUS base unit allows the blending processes to be triggered by almost any system state. This can be a simple keystroke, which is registered on an XRI card, or also fully automatic, e.g. by a detected level on an announcement line.

totalizer 8 in 1

A summing matrix with eight inputs and outputs can also be used as 8 in 1 summator.

User definable glare curves

It can be selected from linear or logarithmic predefined fade curves, but also with the help of 64 support points freely definable fades can be created. The level values between them are interpolated dB-linearly.

Adjustable digital gain at outputs

A digital gain is available on all inputs and outputs.

Automatic fades when switching sources

When switching from different sources to a sink while the NEXUS routing matrix is running, it is desirable not to hear the switching operations. The XFAD crossfade board can provide smooth transitions of two signals that are automatically run after setup with the NEXUS service program when crosspoints are set. Thus, the process remains largely invisible to the user. The extensive possibilities of linear and logarithmic apertures with 64 support points for free configuration and correct interpolation of the level values in between allow an individual adaptation to the user's wishes.

Technical specifications	
Features	
	DSP board for crossfading audio signals
	8 fading curves with 64 base points each
	dB-linear level interpolation between base points
	Fade times: 40 ms...999 s (software-specific)
	Clipping detection
Audio data	
Audio data	NEXUS 24-bit audio format
Sample rates	44.1 or 48 kHz (system-specific)
Inputs and outputs	
Inputs	8, NEXUS-bus
Outputs	8, NEXUS buseach output separately adjustable between ± 20 dB (in 1-dB steps), plus mute, phase inversion for each output
Matrix	8-in-8 mix matrix
Fader attenuation	-100...0 dB (in 0.5-dB steps) plus mute
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	ca. 600 mA
Mechanical data	
Weight	0,210 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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