

SP48

4 IN / 8 OUT • FIR DSP • 96 kHz / 24-bit

VAL audio

Die Liebe zur Musik



OVERVIEW

The VAL SP48 is a high-performance 4-in/8-out DSP speaker processor designed for flexible loudspeaker and sound-system processing. It provides Parameter EQ, Dynamic EQ, a wide variety of filter types, delay, compression and limiting, with DSP parameters that can be saved and recalled using device presets. Its FIR function provides convenient linear magnitude and phase processing, giving speaker engineers greater flexibility during system tuning. Control and configuration are provided through VAL DSP.exe software.

KEY FEATURES

4x8 Matrix Processing

DSP 96 kHz / 24-bit 4-in/8-out matrix processing.

Dynamic EQ

Dynamic EQ for frequency-dependent control.

Device Presets

DSP parameters can be saved and recalled using device presets.

FIR Processing

FIR filter with 48 kHz linear processing for linear magnitude and phase control.

Filter Types

Wide variety of filter types for loudspeaker and system alignment.

VAL DSP.exe

Dedicated VAL DSP.exe control software for setup and processing.

Parameter EQ

Flexible Parameter EQ processing for detailed system tuning.

Delay / Dynamics

Delay, compressor and limiter functions for comprehensive processing.

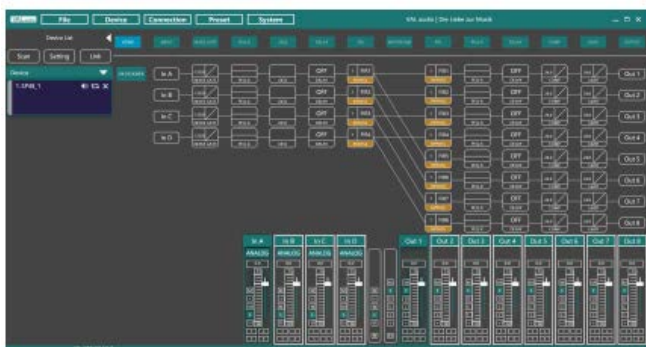
Professional I/O

Neutrik® XLR input and output connectors.

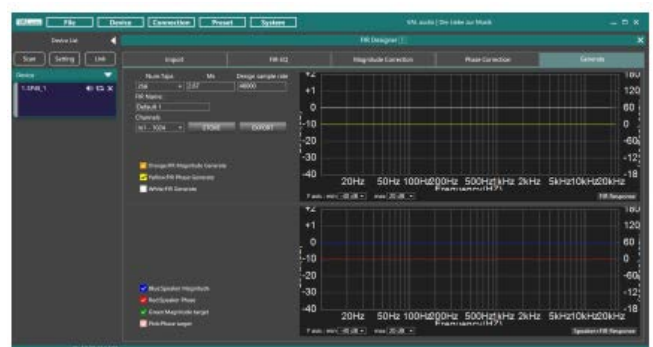
APPLICATIONS

Stage	Speaker processing and system tuning for live sound.
Bar	Flexible system processing for distributed and foreground audio.
Restaurant	Loudspeaker alignment and zone/system processing.
Outdoor Performance	DSP processing for demanding performance environments.
Meeting Room	Signal processing and system optimization for installed AV.

VAL DSP.exe CONTROL SOFTWARE



Main



FIR linear phase process

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DSP PROCESSING

- 4-in/8-out matrix processing with 96 kHz / 24-bit DSP.
- Parameter EQ, Dynamic EQ and a wide variety of filter types for precise system tuning.
- Delay, compressor and limiter processing for loudspeaker and system management.
- FIR filtering with 48 kHz linear processing for linear magnitude and phase response control.
- Device presets allow DSP parameters to be saved and recalled for different sound-system configurations.
- VAL DSP.exe provides computer-based setup, control and processing management.

TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION
Processor	ADI SHARC 21489 400 MHz
Sampling	96 kHz
AD / DA	24-bit
System delay	1.8 ms
Input	4 channels, line level, balanced
Input impedance	11 k Ω
Max input level	16 dBu
Output	8 channels, line level, balanced
Output impedance	100 Ω
Frequency response	20 Hz–20 kHz (± 0.5 dB) / Line
Ground noise	20 Hz–20 kHz, –93 dBu (A-wt)
THD+N	–93 dB (@16 dBu, 1 kHz, A-wt) / Line
SNR	109 dB (@16 dBu, 1 kHz, A-wt) / Line
Audio signal connectors	Input 4× XLR female; output 8× XLR male
Control	USB-B, RJ45 dual-ports (TCP/IP), RS232
Display	2 × 24-character LCD
Indicators	Level / Clip / Limit / Mute / Edit
Power supply	AC 90–264 V, 50/60 Hz
Temperature	–20 °C to 60 °C
Dimensions	483 × 215 × 44.5 mm
Weight	Device 3.8 kg; packed 4.4 kg