DSP1616-D

Matrix Processor

VAL audio

Die Liebe zur Musik

OVERVIEW

The VAL Audio DSP1616-D is a premium 32 input 32 output Dante enabled matrix DSP processor, delivering high-performance audio processing with cutting-edge hardware and feature-rich control software. At its core, the ADSP SHARC 21489, 40-bit floating-point processor operates at a 48kHz sampling rate, ensuring exceptional audio fidelity and ultra-low latency for professional applications.

Designed for versatile and advanced signal processing, the DSP1616-D offers a comprehensive suite of DSP tools on each channel, including high-pass, low-pass, and all-pass filters, parametric EQ (PEQ), delay, expander, compressor and limiter functions. Further to enhance usability and offer versatility the DSP88 features advanced feedback suppression, acoustics echo cancellation (AEC), noise suppression and an intelligent automixer - all seamlessly accessible through the user-friendly control software.

For seamless integration into modern AV environments, the DSP1616-D features an inbuilt USB sound card, enabling direct recording and soft video conferencing codec connectivity. Its extensive control and connectivity options, including USB, 8-way GPIO, Ethernet, RS232, and RS485 allow effortless integration into both new and existing AV setups.

Engineered to handle demanding audio environments, the DSP88 is the perfect solution for auditoriums, museums, conference rooms, lecture theaters, clubs, entertainment venues, and F&B spaces. When paired with VAL Audio's professional speakers, amplifiers, and microphones, it delivers unparalleled performance, flexibility, and value, making it an indispensable tool for professional audio installations.

KEY FEATURES

- 16 analog and 16 Dante inputs
- 16 analog and 16 Dante outputs
- Complete matrix routing of all inputs and outputs
- High-performance ADSP SHARC 21489 x 2, 40-bit floating-point processors optimised for audio processing
- 24bit/48kHz sampling rate for exceptional audio quality and performance
- Comprehensive metering with 16 user presets
- Input channels : Signal generator (sine wave, White noise and Pink noise), expander, compressor, AGC, PEQ, feedback suppression and 48V phantom power
- Automixer with gain sharing and mic priority setting
- Acoustic Echo Cancellation (AEC) for local and remote inputs
- Output channels : Low pass & high pass filters - Bessel, Butterworth, Linkwitz-Riley slopes from 6-48dB/oct, 8 Parametric equalizer (PEQ) - PEQ, low shelf, high shelf, low pass, high pass
- Delay (up-to 408m/1200ms) and limiter on output channels
- In-built USB sound card for USB recording, playback and soft video conferencing codec
- 8-way GPIO (General purpose input output) configured as inputs or outputs, allowing for flexible control of digital signals
- Camera tracking with look at me feature via voice control
- Ethernet, RS232/485 control interface for third-party control
- Full feature control software

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VAL AUDIO CONTROL SOFTWARE

SPECIFICATIONS	
Type	Matrix Digital Signal Processor
Input	16 analog and 16 Dante inputs
Output	16 analog and 16 Dante outputs
Processor	ADSP SHARC 21489 x 2, 40-bit floating arithmetic engine
Sampling Rate	48kHz, 24-bit ADC & DAC
Input Gain	0/3/6/9/12/15/18/21/24/27/30/33/36/39/42/45/48 dB
Phantom Power Supply	+48V/10mA max
Frequency Response	20Hz - 20kHz, ±0.3dB
Maximum Level	+18dBu
Input Dynamic Range	110dB
Output Dynamic Range	112dB
THD + Noise	< -94dB @17dBu
Channel isolation @1kHz	-108dB
Input Impedance	5.4kΩ (balanced), 3kΩ (unbalanced)
Output Impedance	600Ω (balanced)
System delay	<3ms
Power supply	AC 110～240V，50/60 Hz
Power consumption	65W
Dimension (WxDxH)	482mm x 260mm x 45mm
Net Weight	4Kg