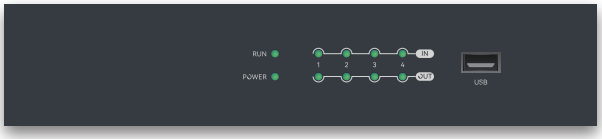
DIGITAL SIGNAL PROCESSING

ALF-DSP44-U
ALF-DSP44-UD



ALF-DSP88-U
ALF-DSP88-UD

DESCRIPTION

Audio Digital Signal Processors (DSP's) are equipped with several core technical features to simulate the work of an audio engineer. The ALF-DSPxx-UD range consists of up to 8 analogue inputs and 8 analogue outputs, up to 8 Dante inputs and 8 Dante outputs, USB Audio, 8 General Purpose Input / Output (GPIO) connections, RS-232, RS-485, and IP control. With up to two ADI SHARC 21489 processors on the 8x8 models, it is equipped with advanced audio processing modules including Acoustic Echo Cancellation, Noise Suppression, and Auto Mixing.

The Analogue to Digital (A/D) and Digital to Analogue (D/A) convertors on the Input and output stage of the DSP's features 48kHz sampling rate and a bit rate of 24Bits, providing high definition audio sampling and processing. It also has a dynamic range of 110dB and a maximum level of +24dBu. It features input and output processing modules including: Expanders, Compressors, Acoustic Gain Compensation (AGC), Parametric EQ, Feedback Suppression, Ducker, Gate, Ambient Noise Compensation, Graphic EQ, and Delay.

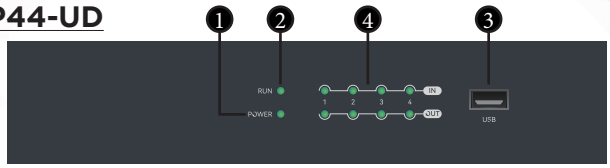
DSP-based audio management, routing, processing, and control, is facilitated via a computer running the GUI Software for the DSP Hardware models. The Alfatron DSP Controller software is a Windows-based application, which is used to configure and control the DSP's. The Alfatron DSP Controller is a full-feature application, including parameter adjustments and peripheral accessory settings of all modules, such as RS232, RS485, and click-and-drag panel configuration. The most interesting part is the user interface which allows the engineer to customize the user interface so that the integrator can edit it; or the onsite technicians, or

FEATURES

- Includes up to two ADI SHARC 21489 Audio Processors
- Up to 8 Balanced Mic / Line Inputs and 8 Balanced Line outputs on phoenix (PCB) connections.
- Up to 8 Dante inputs and 8 Dante outputs available on Dante equiped models
- 24Bit, 48kHz A/D and D/A convertors
- 1ch. USB input and output
- Advanced Audio Processing incl. AEC, Auto-Mixing, Noise Suppression, Matrix
- Audio Processing Modules include:
    - Expanders
    - Compressors
    - Acoustic Gain Compensation (AGC)
    - Parametric EQ
    - Feedback Suppression
    - Ducker
    - Gate
    - Ambient Noise Compensation
    - Graphic EQ
    - Delay
- Software GUI Interface for easy setup and control of all DSP features.
- RS-232, RS-485, and IP Control.
- 8 GPIO connections

FRONT PANEL

ALF-DSP44-U / ALD-DSP44-UD

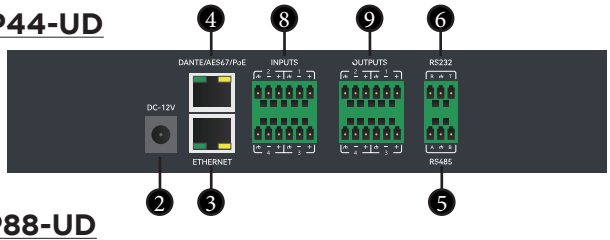


ALF-DSP88-U / ALD-DSP88-UD

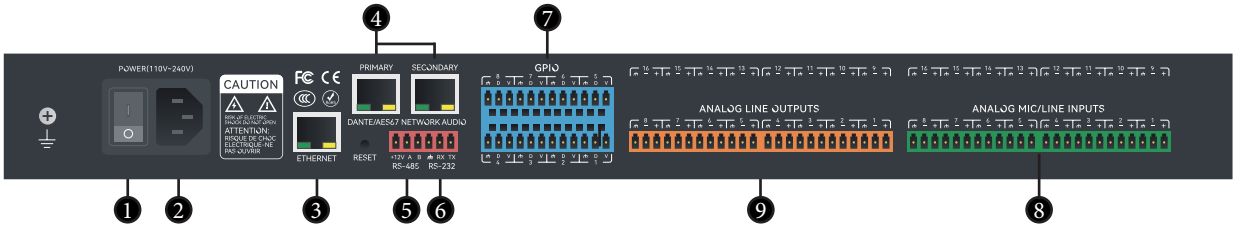
1. Power: LED power indicator.
2. STATUS: The operational status indicator of the device.
3. USB AUDIO: USB audio for connection to host PC. (1-in / 1-out)
4. I/O: Shows signal status of Input / Outputs.

REAR PANEL

ALF-DSP44-U / ALD-DSP44-UD



ALF-DSP88-U / ALD-DSP88-UD



1. Power switch: Turn unit on / off. (ALF-DSP88-U and ALF-DSP88UD ONLY)
2. Power connector: (Supports 110 - 240V AC 50/60Hz, and supports a maximum power of 40W)
3. Ethernet Connector: 10/100 Base-T Ethernet connector is used for IP-based PC software and host control, and third-party accessory controller.
4. Dante Connections: Dante connections for connecting to Dante Digital Media Network. (ALF-DSP44-UD and ALF-DSP88-UD ONLY)
5. RS-485: Used for the serial communication port Tx = sending or data output or Rx = receiving or data input that connects to a third-party control device. Port setting: 115200 baud (default), 8 data bits, 1 stop bit, no parity, no flow control.
6. RS-232: Used for serial communication; port Tx = sending or data output or Rx = receiving or data input that connects to a third-party control device. Port settings: 115200 baud (default), 8 data bits, 1 stop bit, no parity, no flow control.

RS485 & RS-232 can be used for voice tracking control (or other output commands), or for bus input control. A central command can be used to conveniently integrate into your software.

7. GPIO: 8-channel logic connections, with 4 pairs of universal grounding pins. After being activated, the logic output will be low (0V), and the internal voltage will be high (5V) when not activated. You may directly power and light up external LEDs. The logic output can be driven by the logic output control module in the device design. Polarity and threshold can be set in the software.
8. INPUTS: Balanced mic/line level audio inputs with +48V Phantom power.
9. OUTPUTS: Balanced line level audio outputs.

SOFTWARE

Software Installation Requirements

A Windows PC with:

- Intel i5 processor or higher
- 8 GB or higher memory
- 1 GB free storage space
- Windows 7 or higher version
- Minimum 1920 x 1080 resolution
- 24 bit or higher color
- Network (Ethernet) port

7 YEAR WARRANTY

WALL PANEL CONTROLLER

ALF-CP1L

The wall mounted ALF-CP1D control panel consists of a 1.3” OLED screen and a rotary encoder.

The 2-line OLED provides customaisable menus and sub-menu controls of Volume, routing, presets and more.

Easily programmed and managed from the DSP software.

Single CAT5 connection with POE.

CUSTOMIZABLE GUI CONTROL

The DSP’s support a customaisable GUI interface that can be built to facilitate remote control of general items like volume, mute, presets, matrix routing, camera control and other external control commands.

*Supports iOS, Android and windows control options over wired and wireless.

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