Audio Digital Signal Processors (DSP’s) are equipped with several core technical features to simulate the work of an audio engineer. The ALF-DSP1616-U consists of 16 analogue inputs and 16 analogue outputs, USB Audio, 8 General Purpose Input / Output (GPIO) connections, RS-232, RS-485, and IP control. 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.

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**FEATURES**

- 16 Balanced Mic / Line Inputs and 16 Balanced Line outputs on phoenix (PCB) connections.
- 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.
- 8 GPIO connections

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

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

Easily programmed and managed from the DSP software.

Single CAT5 connection with POE.

The DSP’s support a customisable 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.