Preliminary Product Definition

USB-SP2
with microphone input and headphone output

OEM Series
USB headphone/microphone Adapter

Key Features

- USB digital stereo, full-duplex enables two-way digital sound with PC or Gaming Console
- USB-IF Certified, can customize USB device and string descriptor
- USB audio controller, audio class encoder/decoder
- USB serial interface engine, USB transceiver, 2 end points (FIFO)
- Automatic detection using standard Windows 2000, Windows XP drivers
- Standard 16 bit USB audio, 8KHz/11.025KHz/22.05KHz/44.1KHz/48KHz
- Mute, Volume control operates PC volume control window
- No sound card required for PC
- No external power supply needed

Description

The USB-SP2 is a USB powered stereo headphone adapter system utilizing a USB audio and control interface. It can be used to adapt standard headphones and microphones to connect to computers via the USB port.

Audio outputs are stereo headphone. Audio inputs are USB and microphone. The microphone input is sent via the USB port to the PC.

Volume and mute control can be operated by either the PC or the optional front panel of the USB-SP2. This allows for central control, avoiding mismatched volume levels in common powered speakers/PC's.

The USB-SP2 uses the standard Windows USB drivers. The identifying code can be easily modified to display any company or brand when the USB driver detects the USB-SP2. Ideal for creating brand recognition for headphone products.

Applications

Voice recognition
Voice command and control
Internet phone and chat
Videoconferencing
Speakerphones
Headphones
Microphones
Headsets

Small Size:
2.86” x 1.13” without optional switch/LED board
2.86” x 1.59” with optional switch/LED board

Switch/LED options:
Volume up/down
Headphone mute
Microphone mute
USB-SP2 Specifications

Technical Specifications

Standard 16 bit USB audio
Audio Sampling Rates: 8Khz / 11.025KHz / 22.05KHz / 44.1KHz / 48KHz

Frequency Response:
THD+N: -56dB (Headphone), -67dB (Mic)
Signal to Noise Ratio: -75dB (headphone), -69dB (Mic)
Dynamic Range: 76dB (Headphone) , 69dB (Mic)
Output Level Adjustment: Uses Windows USB driver
Input Level Adjustment: Uses Windows USB driver

Inputs:
USB Series B
Stereo microphone, 1/8” mini jack

Outputs
Stereo Headphone, 1/8” mini jack

Power Requirements: USB powered

Operating Conditions
5-45 degrees Celsius, natural convection cooling
0-90% relative humidity (non-condensing)

Regulatory Notices
Complies with FCC Part 15, class A digital device
UL listed for US and Canada

Note: USB-SP2 is a PCB subassembly. Plastic casing shown for example only and not supplied as standard.