

Hall Research AD-340 Universal Audio Delay Processor

The AD-340 is an audio delay processor with universal analog (L/R) and digital (SPDIF) inputs and outputs. Both outputs are simultaneously active, enabling conversion between analog stereo audio to LPCM or vice versa. Delay time can be specified in milliseconds, frames, or distance depending on the application. Analog inputs provide +/- 24 db of gain for direct connection of low level mic as well as handling 2vrms line-level signals. The AD-340's digital I/O support 2-channel linear PCM, 5.1 Channel Dolby Digital, and DTS Surround encoded bitstreams at any sampling rate from 32KHz to 96KHz.

For advanced control, the AD-340 connects to a PC via USB (cable included). No special USB drivers are needed and Hall Research provides a free software configuration utility. Advanced settings include:

- Selection of Sample Rate for Analog input
- Display of Sample Rate and Audio Format (LPCM, Dolby, DTS, DTS-CD)
- Adjustment for: mSec, Feet, Meters, Frames (both 50 and 60 Hz)
- Temperature compensation of delay needed for a given distance
- SPDIF input phase lock, and integrity indication
- Choice for Auto-mute of Analog output when changes are being made
- Gain control of analog input and outputs
- Power status display and control (On / Standby)
- Ability to connect and control multiple devices from one PC (with user specified names stored in each)
- Front Panel Lock control so adjustments cannot be changed inadvertently

Features:

- Delay analog or digital audio in milliseconds, frames, or distance
- Analog to Digital and Digital to Analog conversion
- Supports CD, DVD, and Blu-Ray sample rates at 32kHz, 44.1kHz, 48 kHz and 96kHz
- Supports 2-channel linear PCM digital audio and 5.1 Channel Dolby Digital and DTS encoded bitstreams
- Delay up to 510 ms
- Delay calculation based on distance with optional automatic temperature compensation
- Stereo Analog RCA inputs are ground loop isolated to prevent spurious buzz or hum
- USB interface for advanced control

Specifications :

- Digital Audio:

Standards: IEC 60958 Type II – Sony/Philips Interconnect Format=S/PDIF

Audio Formats: Linear PCM (stereo), bitstreams: Dolby Digital 5.1, DTS 5.1

Cable/Connectors: Coaxial Cable with RCA Connector – 75 Ohm

Signal Level: 0.5 Vpeak-to-peak (transformer coupled output)

PLL Lock Frequency: 32 to 196 kHz

Sampling Rate: 32 kHz, 44.1 kHz, 48 kHz, 96 kHz

PCM Bitrates: 32 kHz~2 MHz, 44.1 kHz~2.8 MHz, 48 kHz~3.1 MHz, 96 kHz~6 MHz

Bitstream Bitrates: DTS: 1.5 Mbps – Dolby-DVD: 448 kbps – Dolby-BD: 640 kbps

- Analog Audio:

Standards: Stereo (Left and Right Channel)

Signal Level: Line Level – 2Vrms (5.6 Vpeak-to-peak)

Sampling Rate: Selectable: 32 kHz or 48kHz

Cable/Connectors: Coaxial Cable with RCA Connector (ground loop isolated)

Frequency Response: 20 Hz – 20kHz (+/- 0.2 dB)

ADC Gain: Nominal 0 db (unity gain) Adjustable +/- 24 dB

DAC Gain: Nominal 0 db (unity gain) Adjustable +/- 6 dB

- Delay Settings:

Maximum Delay (msec): 510 ms @ 32 kHz | 370 ms @ 44.1 kHz | 340 ms @ 48 kHz

Maximum Frames: 16 video frames at both 50 Hz and 60 Hz

Maximum Distance: 550 feet @ 32 kHz | 396 feet @ 44.1 kHz | 362 feet @ 48 kHz

Resolution for Delay Values: 1 msec, 1 Frame, 1 Foot, 1 Meter

Compensation Temp Range: 32° F to 122° F – Step Value: 1 °F

- Dimensions: 1.18" H x 4.17" W x 3.85" D
(30 mm H x 106 mm W x 98 mm D)
Depth excludes connectors
- Power: 6 to 9 v DC at 200 ma. Included is a 6v. 1.5A Power Supply (100~240 VAC with Universal plugs)
- PC Interface: Mini-B USB 2.0 – Full Speed. Cable included
- Weight: Product - 0.75 lb (0.35 kg)
Shipping - 1.5 lbs (0.70 kg)

- Vibration: ISTA 1A in carton (International Safe Transit Association)
- Safety: CE
- EMI/EMC: CE/FCC Class A
- MTBF: 90,000 hours
- Warranty: 2 years parts & labor