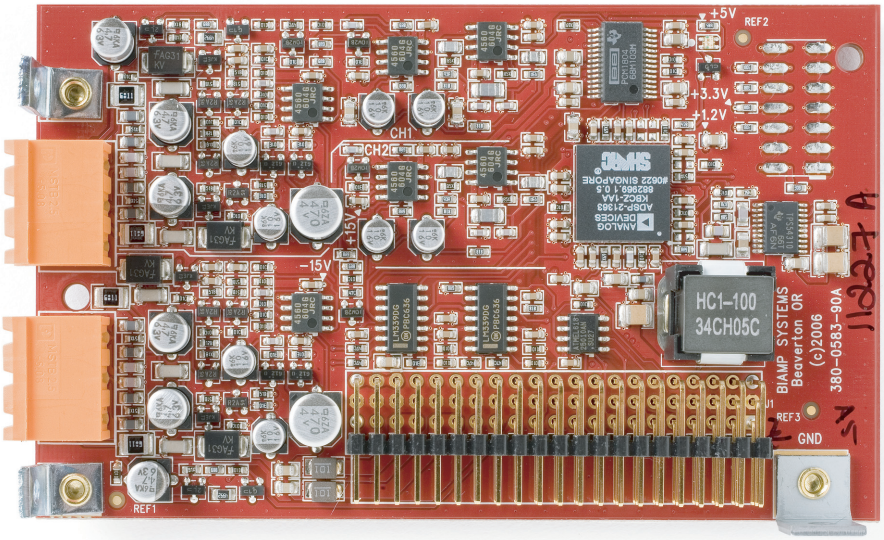
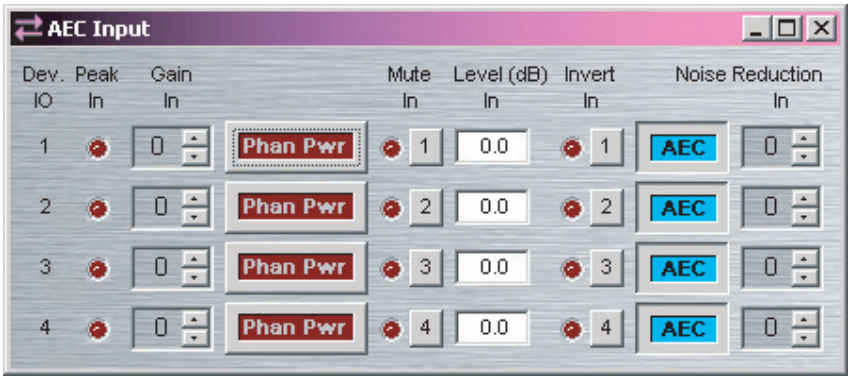
BIAMP®

RoHS Compliant EU 2002/95/EC

NEW

Audia® AEC-2HD Input Cards
Dual-Channel Wide-Band Acoustic Echo Cancellation





Audia has always been ideal for audio and video conferencing. Now, AEC-2HD Input Cards allow each AudiaFLEX installation to have precisely the acoustic echo cancellation needed. With the ability to select AEC on individual input channels, your network conferencing can enjoy the power and flexibility of Audia. Each AEC-2HD Input Card provides two channels of acoustic echo cancellation and background noise reduction, as part of AudiaFLEX hardware. AEC-2HD Input Cards are designed and built using Biamp's proprietary TrueSound™ AEC algorithm for increased frequency response, improved audio quality, and more natural sound during full-duplex transmission of speech. Additional benefits include greater tolerance for differing signal levels, enhanced intelligibility and fast, easy setup.

FEATURES

- dedicated wide-band processing on each input
- assignable reference point for each AEC input
- suppression of steady-state background noises
- on-board DSP, does not use AudiaFLEX resources
- AEC adapts quickly to changes in room acoustics
- AEC stability ideal for room combining applications
- easy to setup, no complicated training procedure
- integrates seamlessly into AudiaFLEX systems
- **RoHS** compliance and **AES** grounding practices
- covered by Biamp Systems' five-year warranty

BIAMP®

Audia® AEC-2HD Input Card SPECIFICATIONS

Frequency Response (+4dBu, 0dB gain):	
AEC on/off	+0/-0.4dB 20Hz~20kHz
THD +N (20Hz~20kHz @ +4dBu, AEC off):	
line level (0dB gain)	< 0.006%
mic level (54dB gain)	< 0.055%
Tail Length:	128ms
Convergence:	≥ 20dB/sec
Dynamic Range (20Hz~20kHz, 0dB gain, AEC on/off):	107dB
Equivalent Input Noise (20Hz~20kHz, 66dB gain, 150 ohm):	-125dBu

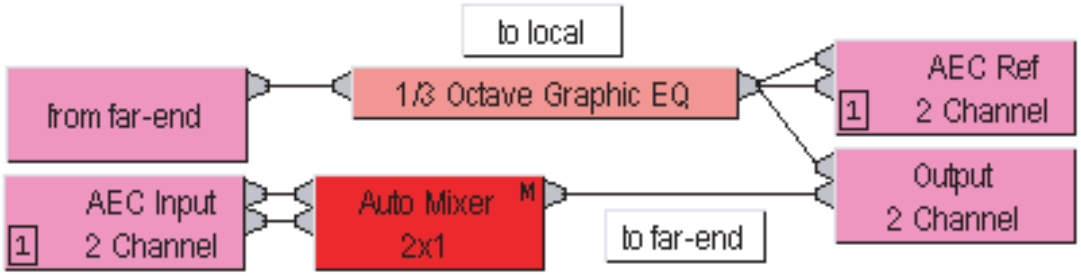
Input Impedance (mic/line balanced):	8k ohms
Maximum Input (mic/line):	+24dBu
Phantom Power:	+48 VDC (7mA/input)
Input Gain Range (variable trim):	0dB ~ +66dB
Sampling Rate:	48kHz
A/D Converters:	24-bit
Compliance:	AES48-2005 Grounding & EMC practices EU Directive 2002/95/EC, RoHS directive

ARCHITECTS & ENGINEERS SPECIFICATION

The acoustic echo cancellation shall be a two-channel input card for AudiaFLEX hardware. Each input channel shall provide dedicated processing, and include an associated reference point. The acoustic echo cancellation shall utilize on-board DSP, and shall not expend DSP resources of the associated AudiaFLEX hardware. The acoustic echo cancellation shall employ a wide-band TrueSound™ algorithm, producing frequency response up to 20kHz, and shall provide system stability while adapting quickly to changes in the acoustic environment. The acoustic echo cancellation shall additionally provide suppression of steady-state background noises. The acoustic echo cancellation shall incorporate AES48-2005 Grounding & EMC practices, and shall be compliant with EU Directive 2002/95/EC, the RoHS directive. Warranty shall be 5 years.

The acoustic echo cancellation shall be an AEC-2HD Input Card for AudiaFLEX.

When placed into an Audia® design layout, each AEC Input consists of two separate blocks. An AEC Input block represents the actual audio input, and an AEC Ref block provides the associated signal reference point. In conferencing applications, AEC Ref blocks should receive 'far-end' signal only, and be connected as close as possible to the output, so as to include any signal processing applied for local sound reinforcement of that signal. This approach provides the most accurate reference. AEC Ref blocks should never be connected to paths containing signal from corresponding AEC Inputs.



In applications where only background noise reduction is desired, AEC can be turned off and no AEC Ref connection is required. Noise Reduction is intended for 'stationary' or steady-state background noises, such as from HVAC systems, fans, motors, or other mechanical devices.