EAA 4-2-1
Embedded Audio Analyzer

What you hear and how people hear you constitute an important part of the user experience of electronic devices. Audio measurement and analysis is usually performed with multiple data acquisition cards and extensive cabling which may result in signal interferences and unreliable test results. Additionally only raw data is usually transferred to computer for analysis which loads the computer system heavily.

With EAA 4-2-1 audio testing is comprehensive and easy.

WHAT IS IT
EAA 4-2-1 is an embedded audio analyzer with built-in analysis functions. Raw data is analyzed within the unit, and only the measurement results are transferred to computer.

A very compact size enables integrating the analyzer in various environments where it can be used close to the signal source in order to prevent signal interferences.

EAA 4-2-1 can be integrated in Chameleon test platforms and other test environments, or it can be used as a stand-alone measurement device.

WHERE’S THE BENEFIT
One test instrument instead of multiple data acquisition cards and cabling provides a more reliable and cost-efficient audio test solution.

Minimized signal interferences guarantee more reliable test results and overall product quality.

EAA 4-2-1 comes with an easy-to-use desktop application for audio test design and analysis.

Built-in analysis functions reduce the computer system load and overall testing time.

Audio performance test
Audio line test
Digital audio test
Microphone test
Speaker test
TECHNICAL DETAILS

Dimensions (l x d x h)
105x123x44mm (4.13x4.84x1.73in)

Operating temperature
15-35°C (59-95°F)

Audio inputs 4pcs
• Balanced 4dBu signal level, 24bit

Audio outputs 2pcs
• Balanced 4dBu signal level, 24bit

Up to 4 digital microphone inputs (PDM)

Voltage measurement
4 IO lines

Controlling via LAN

NI sbRIO digital board

CE safety compliant

TEST FEATURES

Audio input
• Amplitude measurements (RMS, Vp, Vpp and dBu)
• Frequency
• Total harmonic distortion + noise (THDN)
• Fast fourier transform (FFT) with available raw data
• Analog to digital conversion (ADC) with available raw data
• Peak values

Audio Output
• Single tone
• Dual tone
• Multi tone
• Noise
• Chirp
• Wav file

Voltage measurement range
±4.5V to ±45V

Digital IO interface

Digital audio SPDIF

USE CASES

Audio performance test
Audio line test
Digital audio test
Microphone test
Speaker test

Processor Board, sbRIO

FPGA

I2S

CPU

DRAM

SPI

I2S

Analog Board

Audio ADC

DC ADC

Audio DAC

Digital IO

EAA 4-2-1 Functional Diagram

RE-THINK YOUR TESTING!

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