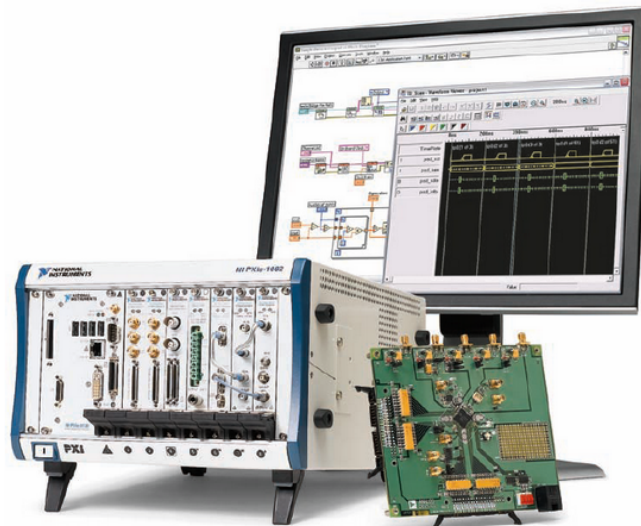


Audio Recording Devices Tester



Overview

The system is based on National Instruments PXI platform. It is designed to test audio path, memory and accumulator parameters of recording devices. The system is universal for all types of audio recording devices and can test simultaneously five devices.

Tests

- Frequency response test
- Signal-to-noise ratio test
- Total harmonic distortion test
- Dynamic range test
- Relative phase angle test
- Crosstalk test
- Intermodulation distortion test
- Test in acoustic chamber
- Accumulator test
- Memory test

Specifications

- Frequency range: 10 Hz - 10 kHz
- Dynamic range: 116 dB
- Number of input channels: 2
- Input range: ± 316 mV to $\pm 42,4$ V
- Input sensitivity: 37.7 nV - 5.05 μ V
- Number of input ranges: 6
- Number of output channels: 2
- Output voltage range: ± 1.19 μ V to ± 100 mV
- Number of output ranges: 3
- Output voltage sensitivity: 11.9 nV - 1.19 μ V
- Typical accuracy of measurements:
 1. Frequency: $\pm 2 \cdot 10^{-3}$ %
 2. Amplitude: ± 0.2 dB

Functionality

- Two analysis modes:
 1. Detailed analysis mode
 2. Express analysis mode
- Express analysis programming by scripts
- Report generation
- Database management
- Data export to Microsoft Excel
- Access to recorder device configuration via USB
- Emergency stop of test

Equipments

- 1.9 GHz Dual-Core PXI Embedded Controller NI PXI - 8102
- 8 - slot 3U PXI Chassis with Universal AC NI PXI - 1042
- PXI Source Measure Unit (SMU) NI PXI - 4130
- Industrial Digital I/O -- 32 Source/Sink Input, 32 Source Output NI PXI - 6514
- 6^{1/2} - Digit PCI DMM NI PXI - 4065
- 2 - Input/2 - Output Dynamic Signal Analyzer NI PXI - 4461
- 64 - Channel External Relay Driver Module NI PXI - 2567