



APx515 Audio Analyzer

Audio Precision performance in production test



APx515 2 channel production test audio analyzer

Key Features

- Typical THD+N -106 dB and 1M point FFTs
- Comprehensive test in 3 seconds without any coding
- Intuitive UI with one-click measurements
- Supports VB.NET, C#.NET, full LabVIEW driver
- Small footprint and only 4 kg
- Share projects and .wav acquisition files with any APx
- Create custom reports using MSWord and the APx UI
- Advanced measurement library includes IMD, MOL, dynamic range, FFTs, more

The APx515 is a high performance audio analyzer optimized for production test. It is a best-in-class instrument for its speed, performance, automation and ease-of-use.

APx515 can make all of the key audio measurements in less than three seconds. Despite its low cost, APx515 still has excellent performance, with a typical THD+N of -106 dB, 1M point FFTs and 192k digital I/O, as well as the one-click automation and ease-of-use of all APx Series audio analyzers. Like all AP instruments, APx515 comes with an ISO:17025 Accredited Calibration and three year warranty, so its results are trusted everywhere.

Comprehensive test in 3 seconds, easy automation AND low cost

APx515 operates either as a stand-alone test unit with its own user interface or it can be controlled by a master .NET or LabVIEW application. In either case, an operator can control APx with a keyboard, foot controller or barcode scanner, or the system can be totally automated. Switchers and external devices such as pass/fail lights are also supported.

In stand-alone mode, sophisticated test sequences are created by selecting from a list of common audio measurements—no coding required. Pass/fail limits, advanced configurations and user prompts can be added as necessary, then the type of report is selected: rich graphic printouts using Microsoft Word or export to CSV. The project can be locked to prevent accidental changes once on the production line.

On an automated line, a master .NET or LabVIEW application can control the APx515 directly using the API or APx LabVIEW driver. Individual measurements can be made or the master application can call a test sequence created with the APx UI.

Models & Options

APx515 has only one model, however several software options extend measurement functionality.

APx515	2 analog inputs and outputs; 192k digital I/O	SW-HST	Adds high speed multitone and continuous sweep measurements
		SW-AML	Adds IMD, MOL, dynamic range, FFTs and other advanced measurements
		SW-ACR	Adds acoustic response measurements
		SW-ASIO	Adds software connectivity for PC audio interfaces

Trusted results between vendors, designers and manufacturers

Thousands of engineers around the world trust measurements made with AP instruments, so collaboration can start with the mutual agreement that each party's test equipment is accurate and reliable.

From a practical perspective, all APx audio analyzers use the same software, making tests and results easier to share between vendors, R&D and production facilities anywhere in the world.

For example, a test designer using an APx525 can create a production test sequence and email it to a contract manufacturer whose APx515 will run the project natively. Performing quality assurance on the production line, the APx515 operator can save a recording of the actual output of a device under test and email it (along with the 515's settings) in a single project back to Engineering for further analysis.

Always best in class

With models across four families, Audio Precision has the widest range of analyzers to serve every aspect of the pro and consumer audio industry.

Each AP audio analyzer is best in its class for performance and functionality.



▲ LOWEST THD+N IN THE WORLD

The 2700 Series has a typical THD+N below -115 dB. It is ideal for the cutting edge of converter & power amp design.



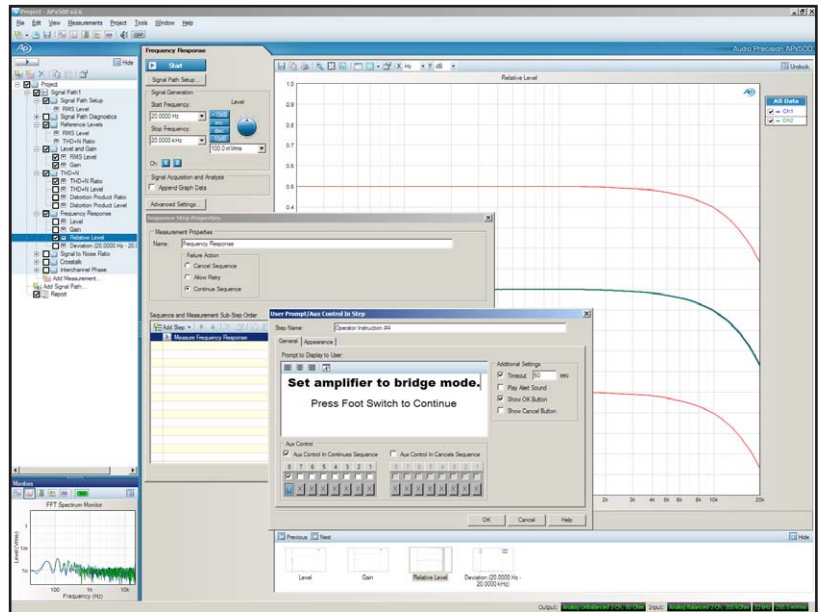
▲ WORLD'S ONLY 1 MHz, 24-BIT RESOLUTION, 1M POINT FFTs

The APx525 offers unprecedented out-of-band noise analysis, CMRR tests and super low noise, ideal for Class D amp design.



▲ TRUE MULTICHANNEL AUDIO ANALYZER

The APx585 offers the best solution for systematic audio & metadata test for HDMI and multichannel audio devices.



Serial number	Test Pass/ Fail Status	Test Start time	Test Stop Time	Left DC Offset	
5	424223	PASSED	10:43:03 AM	10:43:06 AM	0.03
6	424224	PASSED	10:43:08 AM	10:43:09 AM	0.03
7	424225	PASSED	10:43:11 AM	10:43:12 AM	0.02
8	424226	PASSED	10:43:14 AM	10:43:15 AM	0.01
9	424227	PASSED	10:43:17 AM	10:43:18 AM	0.03
10	424228	PASSED	10:43:20 AM	10:43:21 AM	0.03
11	424229	PASSED	10:43:23 AM	10:43:24 AM	0.01
12	424230	PASSED	10:43:26 AM	10:43:27 AM	0.01
13	424231	PASSED	10:43:29 AM	10:43:30 AM	0.03
14	424232	FAILED	10:43:32 AM	10:43:33 AM	0.04
15	424233	FAILED	10:43:35 AM	10:43:36 AM	0.05
16	424234	PASSED	10:43:38 AM	10:43:39 AM	0.01
17	424235	PASSED	10:43:41 AM	10:43:42 AM	0.02
18	424236	PASSED	10:43:44 AM	10:43:45 AM	0.01
19	424237	PASSED	10:43:47 AM	10:43:48 AM	0.02

▲ FAST & INTUITIVE UI

A test engineer adds footswitch interaction to a sequence without a single line of code required.

▲ BEST IN CLASS FOR SPEED

Production line results from APx515.

APx515 Audio Analyzer Key Specifications

SYSTEM PERFORMANCE

Residual THD+N (20 kHz BW)
-102 dB + 1.4 μV
Typical <-106 dB (1 kHz, 2.0V)

GENERATOR PERFORMANCE

Sine Frequency Range
2 Hz to 80.1 kHz
Frequency Accuracy
3 ppm
IMD Test Signals
SMPTE, MOD, DFD
Maximum Amplitude (balanced)
16.00Vrms
Amplitude Accuracy
±0.05 dB
Flatness (5 Hz-20 kHz)
±0.010 dB
Analog Output Configurations
unbalanced, balanced, common mode
Digital Output Sampling Rate
22 kHz-192 kHz
Dolby / DTS Generator
Yes

Specifications subject to change.

ANALYZER PERFORMANCE

Maximum Rated Input Voltage
125 Vpk
Maximum Bandwidth
>90 kHz
IMD Measurement Capability
SMPTE, MOD, DFD
Amplitude Accuracy (1 kHz)
±0.05 dB
Amplitude Flatness (10 Hz-20 kHz)
±0.010 dB
Residual Input Noise (20 kHz BW)
1.4 μV
Individual Harmonic Analyzer
d2-d10
Max FFT Length
1024K points
DC Voltage Measurement
Yes

ISO/IEC:17025 ACCREDITED

Accredited by A2LA for equipment calibration under ISO/IEC: 17025. Calibration report and test data included with all new instruments.

