



APx520/521/525/526 Audio Analyzers

Next generation audio analyzers from Audio Precision



Ideal For Testing :

POWER AMPS	BLUETOOTH SETS
CONVERTERS	CELL PHONES
CD / DVD PLAYERS	BROADCAST TEST
AUTO RADIO WRDS	CHIP LEVEL AUDIO
PRO AUDIO	CLASS D AMPS
MP3 PLAYER	TELEVISIONS

Key Features

- Typical THD+N -108 dB (at 1 kHz, 2.5 V)
- Generate signals down to 0.1 Hz
- Maximum input voltage 300 Vrms (160 Vrms for unbalanced)
- Continuous maximum output and peak
 maximum output measurements
- View power spectrum graphs with regulated frequency sweep and other CEA-2006 and CEA-490A measurements
- Conventional common mode rejection measurements and CMRR in accordance with IEC60268 section 14.15.1

APx Model Options

Select the your analyzer that matches your needs. All models use the same software, so sharing projects is easy. Upgrades are also available between any model. APx520/521/525/526 combines an award-winning user interface with AP's legendary commitment to performance. APx is high speed, high performance, and user friendly. Innovations include one-click measurements, the automated measurement sequencer and continuous sweep technology that can derive 14 measurements in as few as 7 seconds.

APx offers fast, one-click measurements with on-screen results and graphic pass/fail limits indicators. Simple dialogs allow for easy configuration of filters and advanced settings. Repetitive bench tests across multiple signal paths can be automated with the measurement sequencer; level, scope, and FFT signal monitors can be pulled up for real-time analysis. APx can play custom waveforms (square waves, pink noise, etc.) and external source mode allows the testing of playback-only devices such as CD, DVD and MP3 players.

The **APx520** and **APx525** are for both R&D engineers and production technicians who want fast and easy audio test, but who may not need the ultra-high performance of AP's 2700 Series or require the simultaneous multiple channel capability of APx585 and APx586.

The **APx521** and **APx526** four channel analyzers are ideal for testing automotive audio systems, which typically have two analog inputs and four outputs. With a 192 kHz native sample rate, APx analyzers can generate and analyze signals with frequency content in the bandwidth

from DC to over 90 kHz. Furthermore, APx analyzers have a generator buffer size of 32 mega-samples - enough to hold almost 3 minutes of waveform data sampled at 192 kHz. This makes APx a great choice for testing FM receivers with or without RDS. The ability to generate the composite FM signal delivered to an FM RF modulator, and analyze the received signal, is a tremendous advantage.



Automotive head unit receiving an RDS-embedded signal from APx

Ap

Starting under \$10,000 in the US

APx520	Two analog inputs and outputs; no digital I/O
APx521	Four analog inputs and two analog outputs; no digital I/O
APx525	Two analog inputs and outputs plus 192K digital I/O
APx526	Four analog inputs and two outputs plus 192K digital $\ensuremath{\text{I/O}}$



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DATASHEET





Ideal for production test

APx works well in production environments. Complex sequences with user instructions and reports can be created without writing a single line of code. For integrated test stations, APx integrates easily within a larger test procedure using .NET, C# or LabVIEW or it can execute external scripts to control other instruments.

World-class support

Audio Precision provides worldclass support extending beyond the technical operation of our equipment. AP's application engineering department will work with you to define your test procedure, troubleshoot the setup, and understand your results. Custom LabVIEW and API programming support is also available.



Clear communication between R&D, production and management

All settings for a test are saved in a single project file that's small enough to email, making it easy to replicate test setups between R&D and production facilities anywhere in the world. Project files are compatible with all APx instruments and each project is self-contained, so there's never any worry about dependencies or broken links.

For customers, contract manufacturers or management, APx automatically generates rich graphic reports, with highlighted pass / fail limits and options to export as PDF, HTML, Excel or text.

BASIC FORMAT Channels 2 or 4 input; 2 output Computer interface USB 2.0 OS Compatibility Windows Vista, XP Dimensions 3U GENERATOR PERFORMANCE Sine Frequency Range .01 Hz = 80.1 kHz

Frequency Accuracy 2 ppm

IMD Test Signals SMPTE, MOD, DFD

Maximum Amplitude (balanced) 21.21 Vrms [60.00 Vpp]

Amplitude Accuracy ±0.05 dB

Flatness (20 Hz-20 kHz) ±0.008 dB

Residual THD+N (20 kHz BW) -105 dB + 1.3 μV Typically < -108 dB at 1 kHz, 2.5 V

Analog Output Configurations unbalanced, balanced, common mode test

Digital Output Sampling Rate 22 kHz–192 kHz (SPDIF, TOSLINK, AES/EBU) ANALYZER PERFORMANCE Maximum Rated Input Voltage 160 Vrms (unbal) / 300 Vrms (bal) Maximum Bandwidth

>90 kHz Amplitude Accuracy (1 kHz)

±0.05 dB Amplitude Flatness (20 Hz–20 kHz)

±0.008 dB Residual Input Noise (20 kHz BW) I.3 μV

Residual THD+N (20 kHz BW) $-105 \text{ dB} + 1.3 \mu\text{V}$

Individual Harmonic Analyzer d2–d10

Max FFT Length Up to 1 million (1024 K)

IMD Measurement Capability SMPTE, MOD, DFD

Crosstalk I 40 dB (20 kHz)

DC Voltage Measurement Yes



Accredited by A2LA under ISO/IEC: 17025 for equipment calibration

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APx520-526 Key Specifications

5750 SW Arctic Drive Beaverton, Oregon 97005