APx555 | AUDIO ANALYZER

High-performance, modular 2-channel audio analyzer

KEY FEATURES

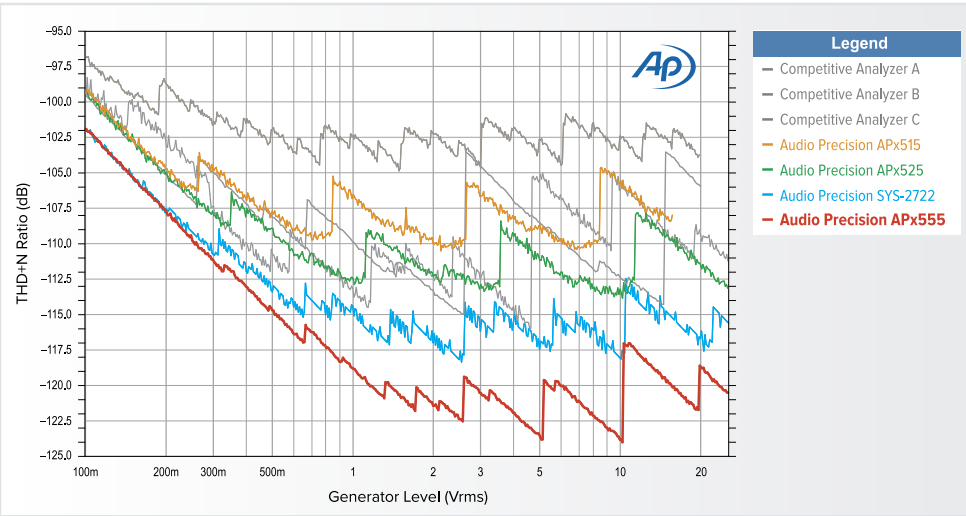
- Industry-best analog performance
- Residual THD+N: -120 dB (typical)
- Over 1 MHz bandwidth @ 24 bits on two channels
- Signal generation up to 204 kHz and 26 Vrms
- 1.2 M point FFTs
- Use Sequence Mode or new Bench Mode for ultimate flexibility and control
- Support for the complete range of APx digital I/O options, including 32-bit digital serial I/O at up to 432 kHz sample rate
- AES/SPDIF advanced digital I/O
- Support for jitter capable digital interface options
- Advanced Master Clock for Reference, Sync and Trigger
- Dual analog notch filters

The New Standard – the highest performance and most versatile audio analyzer ever made.

A culmination of 30 years' experience making test equipment recognized as the standard of the audio industry, the APx555 is an analyzer without compromise. It combines the best analog performance we have ever delivered with complete support for all APx digital I/O options and fast, intuitive measurement software.

Unprecedented Performance

With a typical residual THD+N of -120 dB and over 1 MHz bandwidth, the APx555 surpasses the analog performance of all other audio analyzers, including a 5 dB improvement compared to our 2700 Series analyzer. This performance is supported by 1.2 million point FFT resolution.



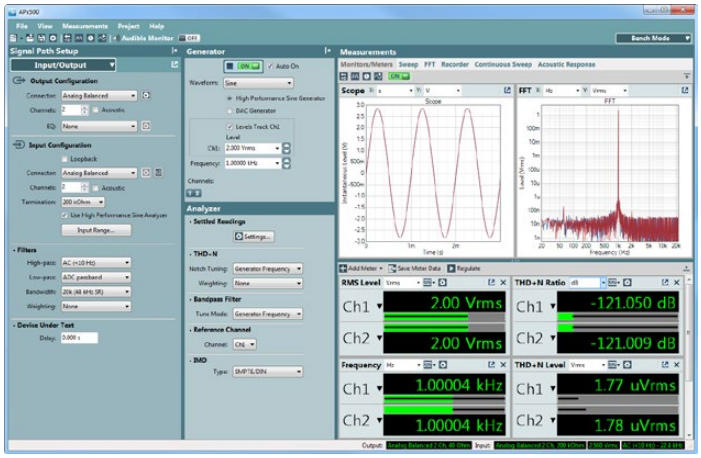
The chart above shows the residual THD+N of several current audio analyzers as a function of generator level; lower values are better. The red trace at the bottom is the APx555; the blue trace above that is the SYS-2722, and the green trace is the APx525.

Multi-mode UI

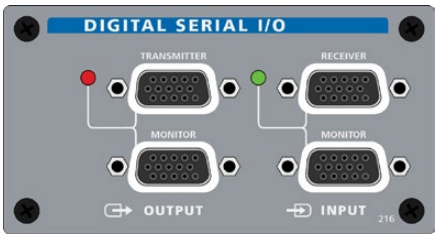
APx500 measurement software allows the APx555–and all other APx analyzers–to adapt to the needs and preferences of audio designers, engineers and technicians.

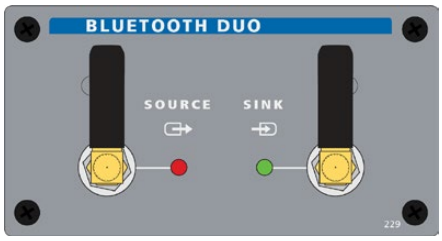
Sequence Mode provides complete, code-free automation of pre-defined measurement sequences to enable fast and reliable results.

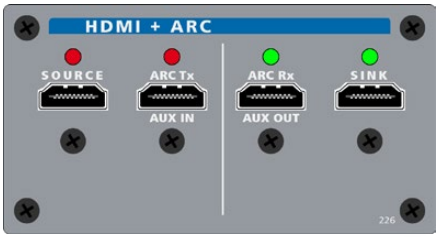
Bench Mode provides the real-time interface approach of the 2700 Series, allowing rapid understanding of relationships between stimulus and results. Waveforms, FFTs and meters for virtually any parameter can identify important interactions, ideal for experienced users.

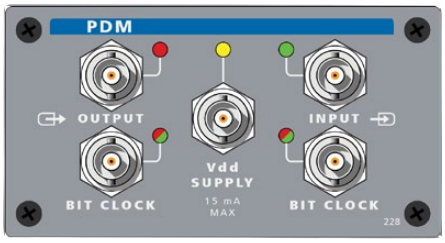


APx500 Bench Mode, showing live meters and monitors for waveforms, FFT, RMS levels, frequency and THD+N.









The APx platform incorporates a modular architecture enabling configuration for a variety of digital I/O options.

Unmatched Flexibility

The APx555 supports the complete range of APx digital I/O options, ensuring compatibility with a wide array of audio formats and devices.

- Digital Serial – I²S, TDM, multi-line support (including jitter*)
- *Bluetooth*® – supports A2DP, AVRCP, HFP and HSP profiles
- HDMI+ARC – source, sink & monitor (including metadata)
- PDM – one-bit audio generation & analysis (including PSRR and jitter*)
- Advanced Digital – AES/SPDIF/Optical (including jitter*)

**Advance Master Clock is standard on the APx555, and supports all jitter capable digital interface modules.*

KEY SPECIFICATIONS

SYSTEM PERFORMANCE

Residual THD+N (22 kHz BW)
-117 dB +1.0 µV
Typically < -120 dB (1 kHz, 2.0 V)

GENERATOR PERFORMANCE

Sine Frequency Range
0.001 Hz - 80 kHz, DAC
5 Hz - 204 kHz, Analog
Frequency Accuracy
3 ppm, DAC
0.35%, Analog (10 Hz to 100 kHz)
IMD Test Signals
SMPTE & MOD, DFD, DIM
Maximum Amplitude
26.66 Vrms bal, 13.33 Vrms unbal
(10 Hz to 100 kHz)
Amplitude Accuracy (1 kHz)
±0.03 dB (+15° C to +30° C)
Flatness (5 Hz - 20 kHz)
±0.008 dB
Analog Output Configurations
Unbalanced, balanced or CMTST
Digital Output Sampling Rate
27 kS/s to 200 kS/s*
Dolby / DTS Generator
Yes (file-based)

ANALYZER PERFORMANCE

Maximum Rated Input Voltage
300 Vrms (bal)
160 Vrms (unbal)
Maximum Bandwidth
> 1 MHz

**Optical 27 kS/s to 108 kS/s*

IMD Measurement Capability
SMPTE & MOD, DFD, DIM
Amplitude Accuracy (1 kHz)
±0.03 dB (+15° C to +30° C)
Amplitude Flatness (10 Hz - 20 kHz)
±0.008 dB
Residual Input Noise (22 kHz BW)
≤ 1.0 µVrms
Individual Harmonic Analyzer
H2-H10
Maximum FFT Length
1248K points
DC Voltage Measurement
Yes

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

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