



## KEY FEATURES

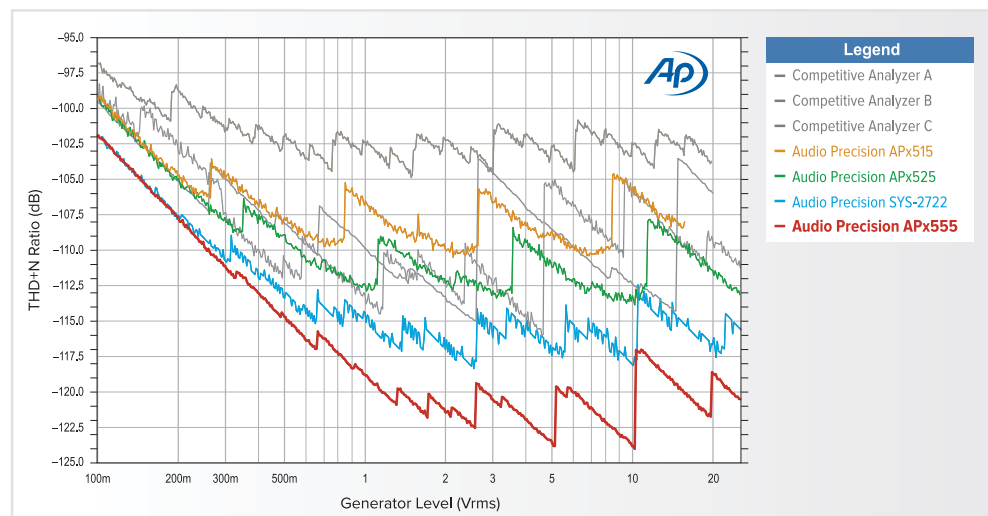
- Industry-best analog performance
- Residual THD+N: -120 dB (typical)
- Over 1 MHz bandwidth @ 24 bits on two channels
- Signal generation up to 204 kHz and 26 Vrms
- 1.2 M point FFTs
- ADC Test Mode option
- Support for the complete range of APx digital I/O options, including 32-bit digital serial I/O at up to 432 kHz sample rate
- Transfer Function Measurement
- Open-Loop Chirp Measurement
- Support for jitter capable digital interface options
- Advanced Master Clock for Reference, Sync and Trigger
- Independent output channel configuration

## 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 B Series 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. With the introduction of the B Series, the APx555 further lowers analog system residual distortion at sinewave frequencies above 50 kHz over the full 1 MHz bandwidth.

### Unprecedented Performance

With a typical residual THD+N of -120 dB and over 1 MHz bandwidth, the APx555 B series surpasses the analog performance of all other audio analyzers. 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

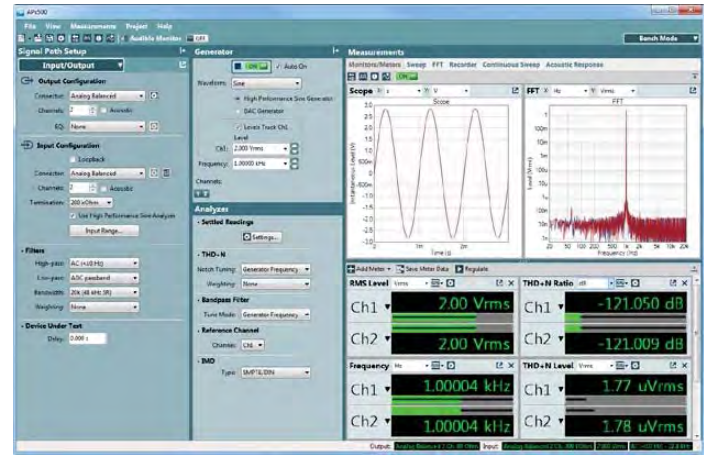
APx500 measurement software allows the B Series APx555 to adapt to the needs and preferences of audio designers, engineers and technicians.

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

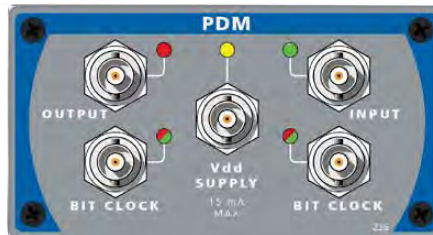
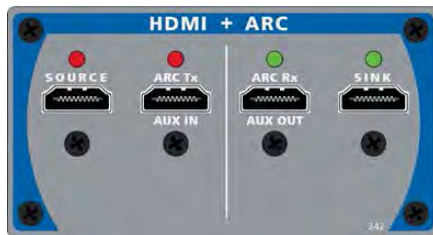
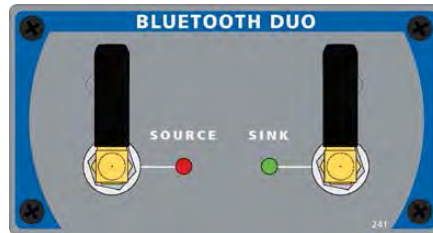
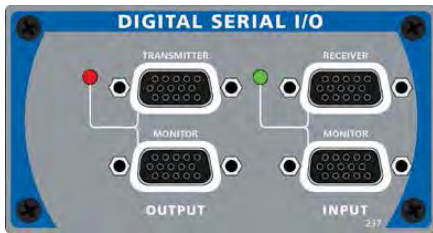
**Bench Mode** provides a real-time interface, with waveforms, FFTs and meters for virtually any parameter enabling the identification of important device interactions.

## ADC Test Mode Option

The ADC Test Mode option provides an adjustable common mode VBIAS DC offset voltage on the balanced analog outputs. A Pin Voltage Protection mode, when enabled, prevents overvoltage damage to your direct-coupled ADC device's input during performance tests.



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



The B Series 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 – I<sup>2</sup>S, 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  $\mu$ V  
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  
30 ppm, Analog (Precision Tune)  
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)  
 $\pm 0.03$  dB (+15° C to +30° C)  
Flatness (5 Hz - 20 kHz)  
 $\pm 0.008$  dB  
Analog Output Configurations  
Unbalanced, balanced (differential or single-ended) or CMTST  
Digital Output Sampling Rate  
27 kS/s to 200 kS/s\*  
ADC Test VBIAS Range  
-0.4 to +4.2 VDC

### ANALYZER PERFORMANCE

Maximum Rated Input Voltage  
300 Vrms (bal)  
160 Vrms (unbal)

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

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



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for equipment calibration

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