DA795 Digital Audio Analyzer (vertical sidebar text)

DA795 DigiPro Digital Audio Analyzer

Provides a powerful, complete set of test, troubleshooting and utility functions for digital audio analysis, in a hand-held DSP-powered device.

Analyze any stereo digital audio signal,
and generate low-noise digital test signals, all at up to 24 bit/96k sample rate resolution. Digital audio analysis features and functionality, normally found only on expensive bench test equipment, are now available in a portable, easy-to-use and cost-effective package.

All the connections you'll need –
Two sets of AES/EBU and SP/DIF inputs, including Toslink and ADAT, plus Word Clock in. Digital outputs, including AES/EBU, S/PDIF, and Toslink/ADAT, and Word Clock out. Analog stereo headphone and unbalanced mono analog outputs. ADAT sync and RS-232 serial for firmware updates.

DA795 Features:

- **Bitstream Analyzer** totally analyzes a digital stream to check actual word length and sample rate, bit activity, header status information, flag errors, byte detail, and low carrier voltage.
- **Bitscope** shows distortion, noise, jitter, or phase on an S/D or X-Y scope, and also applies the results to the internal speaker, headphones, and line output.
- **Pass Mode** modifies a signal's status information, performs sample-rate conversion, changes signal formats (AES/SPDIF/ADAT), or adds digital signal gain or attenuation.
- **Clock/Sample Counter** measures sample rate/word clock (±0.01Hz) and superclock (±4Hz).
- **Jitter Meter** tests RMS interface jitter on a digital signal (to 150ps) or clock (to 35ps), as referenced to an internal crystal or external master clock.
- **LAeq Dialog Level** measures "equivalent" average sound level. Helps broadcasters meet FCC Dialog Level (dialnorm) spec.
- **Digital Watchdog** captures signal errors for a test period and graphs the errors.
- **Latency Test** checks the signal delay through a device with a digital audio input.
- **Cable Tester** tests digital audio cables for functional quality with Julian Dunn J-test waveform.
- **Transparency Test** verifies that a signal path or recording/storage device passes digital test waveforms without errors, with either synchronous or asynchronous test.

Call Today! 1-800-736-2673 or 1-605-339-0100

DA795 Digital Audio Analyzer Specifications

Digital Input/Output:
Digital Signal Formats: AES-3, S/PDIF coaxial, S/PDIF optical (Toslink), ADAT, BNC

Lock Detect: <1 ppm
Digital Watchdog:
Minimum Test Period: 1 minute
Maximum Test Period: 24 hours
Minimum length of detected error, all test times: 1sample

Transparency Test:
Maximum number of errors per channel: 65,536
Maximum length of test: unlimited

Frequency Counter:
Frequency accuracy: 0.1 ppm or ±0.01 Hz in a word clock or sample clock, or ±4 Hz in a master clock signal (256xFs)

Signal Generator:
Sine wave output frequency: 1 Hz to 20 kHz
Sine wave distortion: Better than -130 dB THD+N

Latency Test:
Accuracy: ±2 samples

Jitter Meter:
Jitter Range AES/EBU or SPDIF Input: 150 pS to 100 nS
Clock/Super clock Input: 35 pS to 100 nS

Analog Output:
Unbalanced voltage range: 0 dBu to –66 dBu
Balanced output voltage range: +6 dBu to –60 dBu
Sine wave distortion: Better than –85 dB THD+N

STANDARDS
Sound Level Meter: ANSI S1.4-1983 (ASA 47-1983)
Leq: ANSI S1.43-1997
All filters, weighting networks, response rates, and algorithms meet or exceed ANSI Type 1 specifications.

General/Environmental:

Display: 64x128 pixel blue LCD with backlight
Size: 5.5" x 12.5" x 2.25" (HWD)
Weight: approx. 4.5 lb.
Temperature Range: 5ºC to 45ºC, non-condensing

Power
Battery: Sealed Lead Acid 6 Vdc module
AC adapter/charger: 100-240 Vac, 47-63 Hz, 7.5 Vdc, 4A

Dual inputs allow testing for lock between two digital signals. Also includes Toslink and ADAT optical inputs and Word Clock in. Battery access door allows changing batteries, if desired.

Dual-domain, simultaneous digital and analog outputs, for monitoring of digital inputs while generating digital and analog output test signals.

The DA795 DigiPro functions:

Analysis Functions	Digital Tests	System Tools	Utilities
Bitstream Analyzer	Digital Lock Test	Level Meter	Digital Cable Tester
BitScope	Video Lock Test	Signal Generator	Laeq Dialog Level
Clock/Sample Counter	Transparency Test	Pass Mode	Setup & Calibration
Distortion Meter	Latency Test	Capture Sample Data	About
Sweeps	Jitter Meter	Digital Watchdog	

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