Benchmark
...the measure of excellence!™

DAC1

2-Channel, 24-bit, 192-kHz, D-to-A Converter

With *UltraLock™*

FEATURES AND PERFORMANCE

- Two Channel, 24-bit, 192-kHz, D-to-A Conversion
- Plays 192-kHz with 52-kHz analog bandwidth
- Direct connection to powered monitors
- *Total* jitter immunity via *UltraLock™* technology!
- 116 dB signal-to-noise ratio @ 48-kHz, A weighted
- THD+N = -107 dB (0.00045%) measured at -3 dBFS, any sample rate, any test frequency
- AES, S/PDIF, and Toslink inputs
- Digital input source-selection switch
- Variable or preset output level controls
- Balanced Low-Z XLR outputs
- Unbalanced RCA outputs
- Automatic de-emphasis for 44.1, 48, and 96-kHz when pre-emphasis bit is set
- Headphone amp = 0.0003% THD into 60 Ω
- Output-off switch position for headphone-only use
- Front panel power and error indicating LEDs
- Internal low-radiation toroidal power supply
- International 120 - 240 input voltage range
- 1/2 wide, 1RU high chassis
- Machined aluminum front panel
- Rack mount kit available

The DAC1 is a two-channel, 24-bit, 192-kHz Digital-to-Analog audio converter. It is, perhaps, one of the more significant recent advances in digital-audio conversion technology.

Listening to audio from the DAC1 is an absolutely truthful experience. The distortion free output is so pristine you can now hear detail which was previously masked by jitter induced artifacts and distortion. If the recording was exceptional, you'll hear it; if it wasn't, you'll hear that as well.

The DAC1 is a 192-kHz converter, and will playback 192-kHz signals with a 52-kHz analog bandwidth. THD+N is an astonishing low -105 dB (0.00056%) measured at 0 dBFS, and -107 dB measured at -3 dBFS – at any playback frequency, at any sample rate, and with any degree of input jitter. The secret? *UltraLock*™ technology.

Additional features include: phase-coherence between units, auto-detection and processing of pre-emphasized digital audio, and an ultrahigh performance HPA-2 headphone amplifier with dual outputs. The DAC1 has an internal, international toroidal power supply.

The front panel level-control always adjusts the headphone output level. The front panel level-control can also be selected to adjust the output levels at the rear of the converter. Alternately, the output levels can be set at a fixed gain with precision, rear panel; 10-turn trim pots. The balanced output level range is +10 dBu to +29 dBu at 0 dBFS.

The DAC1 is essential equipment for mastering and recording studios, broadcast facilities, even audiophile home stereo installations, and all locations that require uncolored monitoring.

Call today for pricing and availability.

DAC1

2-Channel, 24-bit, 192-kHz, Digital-to-Analog Converter

Audio Performance:

SNR – A-Weighted, (0 dBFS = +20 to +29 dBu):	116 dB
SNR – Unweighted, (0 dBFS = +20 to +29 dBu):	114 dB
SNR – A-Weighted at low gain, (0 dBFS = +9 to +18 dBu):	114 dB

THD+N, 1-kHz at 0 dBFS:	-105 dBFS, -105 dB, 0.00056%
THD+N, 1-kHz at –1 dBFS:	-107 dBFS, -106 dB, 0.00050%
THD+N, 1-kHz at –3 dBFS:	-110 dBFS, -107 dB, 0.00045%
THD+N, 20 - 20-kHz tone @ –3 dBFS:	-110 dBFS, -107 dB, 0.00045%

Frequency Response at Fs=48-kHz:	+/- 0.1 dB (20 to 20-kHz) -0.02 dB at 10 Hz -0.20 dB at 20 kHz
Frequency Response at Fs=96-kHz:	+/- 0.1 dB (20 to 20-kHz) -0.02 dB at 10-Hz -0.20 dB at 20-kHz -0.85 dB at 40-kHz -2.50 dB at 45-kHz
Crosstalk:	-100 dB at 20-kHz -125 dB at 1-kHz -130 dB at 20-Hz

Maximum Amplitude of Jitter Induced Sidebands: (10-kHz @ 0 dBFS test tone, 12.75 UI sinusoidal jitter at 1-kHz)	< -141 dB
Maximum Amplitude of Spurious Tones with 0 dBFS signal:	< -126 dB
Maximum Amplitude of Idle Tones:	< -128 dB
Maximum Amplitude of AC line related Hum & Noise:	< -126 dB
Interchannel Differential Phase (Stereo Pair):	± 0.5° at 20-kHz
Interchannel Differential Phase (DAC1s):	± 0.5° at 20-kHz
Maximum Lock Time – after Fs change:	100 mS

Soft Mute Ramp Up/Down Time:	10 mS
Mute on Receive Error:	Yes
Mute on Lock Error:	Yes
Mute on Idle Channel:	No

50/15 uS De-Emphasis Enable:	Automatic in Consumer Mode
De-Emphasis Method:	Digital IIR
De-Emphasis Supported at:	Fs = 32, 44.1, 48, and 96-kHz

Delay from digital input to analog output:

	2.72 ms at 28-kHz
	2.51 ms at 32-kHz
	2.10 ms at 44.1-kHz
	2.01 ms at 48-kHz
	1.55 ms at 88.2-kHz
	1.51 ms at 96-kHz
	1.45 ms at 108-kHz

Power

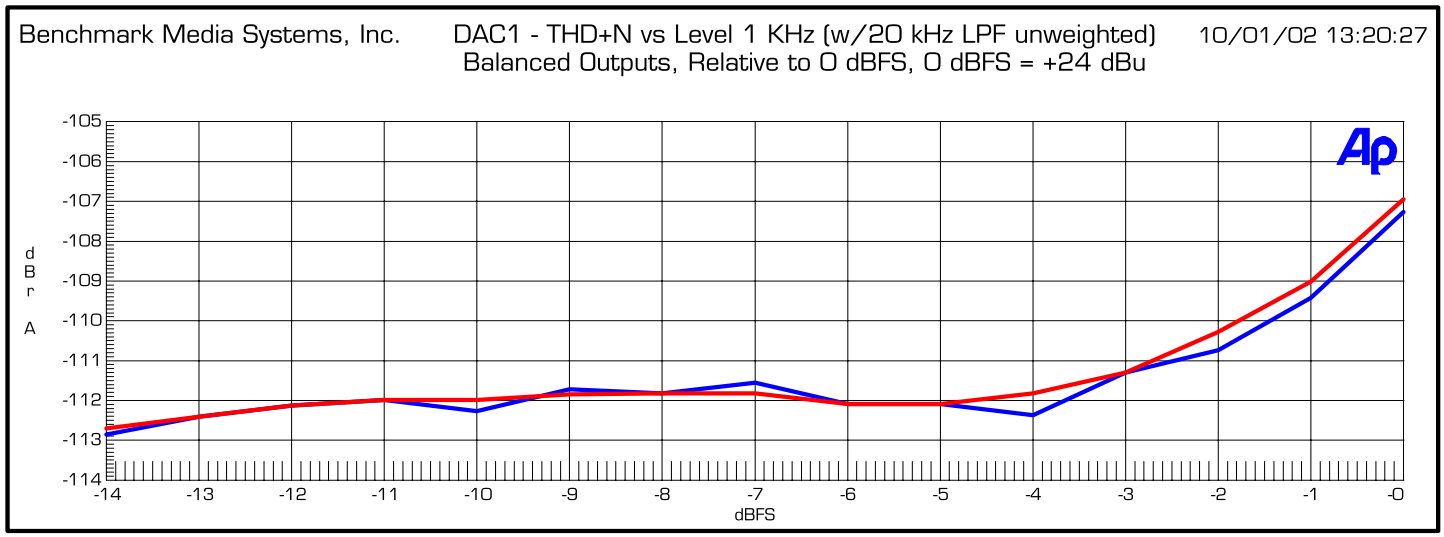
Input Operating Voltage Range – VAC RMS
115 V setting – 90 V min, 140 V max, 50-60 Hz
230 V setting – 175 V min, 285 V max, 50-60 Hz
8 Watts Idle, 8 Watts Typical Program, 16 Watts Maximum

Dimensions:

½ Rack Wide, 1 RU High
8.5" (216 mm) Chassis Depth
9.33" (237 mm) Overall depth
9.5" (249 mm) Wide
1.725" (44.5 mm) High

Weight:

DAC1 only:	3.5 lb.
DAC1 with cord and accessories:	4.5 lb.
Rack mount kit	0.32 lb.
Shipping weight:	7 lb.



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