

Model Two HDCD Processor



HDCD®

digital
gets a
soul

MODEL TWO HDCD PROCESSOR FOR DVD, DVD-AUDIO,

A/D and D/A Conversion

The Model Two features two channels of HDCD A/D conversion and D/A conversion at 192 kHz, 176.4 kHz, 96 kHz, 88.2 kHz, 48 kHz and 44.1 kHz sampling rates, and 24-bit, 20-bit and 16-bit word lengths. D/A conversion can be clocked by the A/D clock in Master Mode to reduce jitter.

Unmatched Performance

The Model Two's resolution and accuracy are unmatched. Distortion products are below -120 dBfs.



For more information on the Model Two, please contact
For more information on

PROCESSOR FEATURES

AND CD MASTERING, MIXING AND TRACKING



Digital Signal Processing

The Model Two's Digital Processing converts 192/176.4 kHz signals to 96/88.2 kHz and 48/44.1 kHz, converts 44.1/48 kHz signals to 88.2/96 kHz and 176.4/192 kHz, converts 24-bit signals to 20-bits or 16-bits, converts 16-bit HDCD signals to 20-bits or 24-bits, and adjusts gain over a -25 dB to +6 dB range.

Surround Sound

The Model Two is designed for surround sound with a Master mode that allows multiple Model Twos to run from a single precision clock.

phonix at 650-855-0400, or visit www.euphonix.com
CD visit www.hdcd.com

Model Two HDCD Processor Technical Specifications

■ ANALOG INPUTS

Connectors: XLR-3-31; Polarity: pin 2 or 3 high (software selected); Level: +12 dBu to +24 dBu full scale; Impedance: $\geq 13 \text{ k } \Omega$ balanced; CMRR: > 80 dB DC to 1 kHz, > 60 dB at 20 kHz.

■ ANALOG OUTPUTS

Connectors: XLR-3-32; Polarity: pin 2 or 3 high (software selected); Level: -12 dBu to +24 dBu full scale, +18 dBu and +24 dBu are set using analog attenuation. All other levels are set using digital attenuation in 0.188 dB steps at 44.1 kHz and 48 kHz. At 88.2 kHz and above, digital attenuation is in 0.1 dB steps; Impedance: 20 Ω balanced.

■ DIGITAL INPUTS

Signal Format: AES/EBU, 16-bit to 24-bit, single wire at 44.1 kHz and 48 kHz, single wire or two wire at 88.2 kHz and 96 kHz, two wire at 176.4 kHz and 192 kHz; Connectors: XLR-3-31; Level: RS-422; Impedance: 110 Ω balanced. (Digital inputs and outputs may be independently set to single wire or two wire at 88.2 kHz and 96 kHz)

■ DIGITAL OUTPUTS

Signal Format: AES/EBU, 16-bit, 20-bit and 24-bit, single wire at 44.1 kHz and 48 kHz, single wire or two wire at 88.2 kHz and 96 kHz, two wire at 176.4 kHz and 192 kHz; Connectors: XLR-3-32; Level: RS-422; Impedance: 110 Ω balanced. (Output 1 and 2 word lengths may be independently set at 44.1 kHz and 48 kHz)

■ DIGITAL REFERENCE INPUT

Signal Format: AES/EBU 16-bit to 24-bit, 44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz; Connector: XLR-3-31; Level: RS-422; Impedance: 110 Ω balanced.

■ WORD CLOCK INPUT/OUTPUT

Signal Format: 44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz square wave; Connector: BNC; INPUT LEVEL: TTL; Impedance: 75 Ω . Model Twos have isolated high impedance bridging word clock inputs and require an external 75 Ω termination. This allows multiple units to be "daisy chained" for synchronous operation with the last unit in the chain terminated by 75 Ω . The word clock output is AC coupled to prevent ground loops and allows the Model Two to be used as a word clock generator in Master Mode.

EUPHONIX INC.

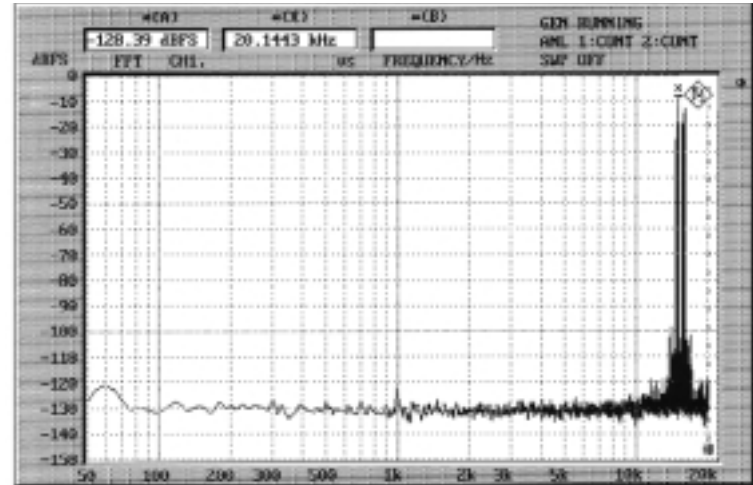
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www.euphonix.com
www.hdcd.com

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A/D CONVERSION INTERMODULATION DISTORTION



FULL AMPLITUDE EIGHT TONE SINE CLUSTER TEST

Cluster Range: 14.8 kHz to 16.0 kHz. Tone spacing set to maximize intermodulation components.

■ SERIAL DATA I/O

Signal Format: RS-232; Connector: D-Sub 9-pin, DTE. (Used for downloading system software)

■ USER SET-UP AND OPERATING INTERFACE

Back-lit dot matrix graphic display, rotary optical encoder, and software configured switches allow software based configuration of all set-up and operating parameters. Multiple operating configurations can be stored as user labeled presets allowing instant set-up.

■ SIGNAL LEVEL METERS

Two channel, 66 dB range, four color, LED bar graph. "Peak" and "Over" indication selectable for duration and sensitivity, reference level variable from -6 dB to -21 dB in 1dB steps, reference level set mode (provides .2 dB per segment resolution), calibrated digital signal word length display mode, 6 dB HDCD 16-bit "Peak Extend" level indication, display reset, variable brightness. Peak bar or simultaneous average bar with peak dot display modes.

■ HDCD SIGNAL PROCESSING

Eight Motorola 56009 DSPs and one Pacific Microsonics PMD-100 HDCD decoder ASIC control A/D conversion, sampling rate conversion, word length conversion, digital gain adjustment, HDCD encoding and decoding, and D/A conversion.

■ A/D AND D/A CONVERSION RELOCKING

Jitter rejection knee: A/D < 1 Hz (jitter reduction at 100 Hz > 80 dB), D/A < 2.5 Hz

■ AC POWER REQUIREMENTS

100/120/220/240 V +5% to -15%, 50/60 Hz, 200 Watts.

■ DIMENSIONS

PROCESSOR UNIT: 5.25"H x 19"W x 19.5"D (133mm x 483mm x 495mm). Enclosure is 17"W (432mm) behind front panel.
POWER SUPPLY: 2.5"H x 14"W x 12.25"D (64mm x 356mm x 311mm).

■ WEIGHT PROCESSOR UNIT:

PROCESSOR UNIT: 35 lbs. (16 kg)
POWER SUPPLY: 20 lbs. (9 kg)