

Innovation: Performance Control Technology

DTS XD10

Cinema Media Player



The DTS XD10 Cinema Media Player is engineered to deliver 10 channels of the highest quality digital surround sound, plus enhanced video for alternate media. The unit contains an internal hard drive, capable of storing up to 30 feature film soundtracks.

The DTS XD10 will offer scalable multi-channel audio as well as 96/24 playback and DTS Neo:6™. Optional custom features include DTS-CSS Access technology for subtitling, captioning, and audio description.

The DTS XD10 is a full-featured media solution with networking and pre-show programming capability. With the XD10, DTS launches the first product in its XD Series, designed to deliver high performance technology for today's progressive cinemas.

Features

The XD10 is capable of supporting 10-channel playback (8-channel playback and 2 channels for alternate audio). The system automatically starts, stops, and tracks film breaks and changeovers.

The XD10 is capable of decoding two DTS audio formats: standard (apt-X 100™) and DTS Digital Surround. Material recorded in standard digital audio at a 44.1K sample rate with apt-X 100™ digital audio data compression (4:1) provides up to 8 audio channels that are DTS Digital Surround plus 2 auxiliary channels. Two-channel audio, generally used for commercials, can utilize DTS Neo:6™ technology to matrix to 6 channels.

For reliability, the XD10's internal hard drive is used as the film sound signal source and two DVD drives are available to download film sound information to the hard drive. When discs are loaded into the player, the system downloads the first reel (in approximately 30 seconds), and then begins to play the film. The balance of the reels is recorded onto the XD10 hard drive while the first reel is being played.

The downloading process only needs to be performed once. From that point on, playback is automatic. The XD10 will automatically load and store up to 30 full-length film soundtracks. Subsequent loading is accommodated by sequential replacement of previously loaded films.

DTS timecode assures not only accurate sound and picture synchronization, but is keyed to assure films are run with the correct audio tracks. Films released in the DTS Digital Sound format also contain a traditional analog (optical) soundtrack (SR, A-TYPE, or MONO) to serve as a fallback sound source. To further ensure fail-safe operation, the XD10 will perform automatic error detection. If problems are detected with the digital sound, the system automatically alerts that a fallback format is needed.

Additionally, DTS-CSS features can be added easily with downloadable software, as well as expanded functionality to include a video board.



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Specifications

Inputs

- Timecode (Projector 1 and Projector 2)
 - Supports DTS SMPTE timecode on 30fnd & 25fnd
 - Timecode signal (DTS and SMPTE formats), auto sensing of timecode type
- Automation
 - Rear Panel DB25F
 - 8 format (switch closure) inputs, 24V max, opto-isolated
 - 7 pin Phoenix connector for 3 additional inputs and 3 additional outputs

Audio Outputs

- Analog (Main)
 - Connectors: Rear Panel DB25M Channels 1-10
 - Output Impedance: 100 ohm (load > 600 ohms)
 - Output Level: unbalanced 300 mV @ -20dBFS (reference level)
 - Frequency Response: 20 – 20K + 0.5dB @ Reference level
 - Dynamic Range: 100dB, 20 – 20kHz, unweighted
 - S/N: >80 dB @ -20 dBFS
 - THD+N: 0.08%, 20 – 20kHz
 - Crosstalk: -60 dB, 20 - 20 kHz
- Analog (Descriptive Narrative and Aux)
 - Designed to support Descriptive Narrative
 - Connectors: Rear panel RCA
 - Output Impedance: 10 K
 - Output Level: -10 dBV
 - Dynamic Range: 90 dB, 20 - 20 kHz, unweighted
 - S/N: 85 dB
 - THD+N: 0.08%, 20 – 20kHz
 - Crosstalk: -45 dB, 20 - 20 kHz
- Digital Audio Out (Optional)
 - Connector: Rear Panel 25 DB25M
 - Electrical Format: AES/EBU
 - Coding Format: S/PDIF, AES/EBU
 - Sample Rates: 48, 96 kHz

Audio Coding Algorithms

Frequency Response

- apt-X 100
 - L, R, C, L-C, R-C: 20 Hz to 20 kHz
 - LS, RS: 80 Hz to 20 kHz
 - Sub: 20 Hz to 80 Hz

- DTS Digital Surround
 - L, R, C, L-C, R-C: 20 Hz to 20 kHz
 - LS, RS 9, 10: 20 Hz to 20 kHz
 - Sub: 20Hz to 120 Hz

Other Connectors

- EMA Control Outputs and Cinema Processor Automation Outputs
 - Rear Panel DB15F: connections compatible to CSS
- Ethernet (for future features)
 - Rear Panel RJ45
 - Conforms to IEEE 802.3
- USB (for future features)
 - 2 Rear Panel USB-A
 - 1 Front Panel USB-A
- RS-232 (for serial remote control)
 - Rear Panel DB9M
 - Hardware and Software (XON/XOFF) flow control
 - Supported baud rates: 4.8 - 56.2 Kbaud
- IR Front Panel Window
 - Video Out
 - DTS-CSS option
 - VGA via HP15F
- Preshow and Alternative Content Video
 - Optional video card

DVD-ROM

- Two (2) 12X DVD-ROM drives are provided in the system
 - 12X DVD/40X CD-ROM

Hard Drive

- Capacity: 40 GB
- MTBF 100,000 operational hours

User Interface

- Status LEDs (Front Panel)
- Menu Navigation and Control Buttons
- LCD (Front Panel)
 - A 4 line X 20 character, backlit LCD
 - Backlight not adjustable. Viewing angle adjustment via trimpot through front panel

Hardware

- Dimensions
 - HWD 5.25 X 19.0 X 15.0 (3U 19" rack-mount standard)
- Warranty
 - Three years, parts and labor

*All specifications are subject to change without notice.



Menu Screen



Rear Panel

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