



DTS XD10P Cinema Audio Processor

Premier Performance for Digital and Analog Soundtracks

DTS Digital Cinema North America

2777 N. Ontario Street
2nd Floor
Burbank, California
91504 USA
T: +1 818 401 4300
F: +1 818 401 4329

DTS Digital Cinema Europe

5 Tavistock Estate
Ruscombe Lane
Twyford, Berkshire
RG10 9NJ UK
T: +44 118 934 9199
F: +44 118 934 9198

DTS Digital Cinema Japan

4F Excel Ty Bldg.
1-16-13 Ebisu Minami
Shibuya-ku
Tokyo 150-0022
Japan
T: 81(0)3 5794 5288
F: 81(0)3 5794 5266

DTS Digital Cinema France

6 rue Watteau
92400 Courbevoie
France
T: +33 1 41 97 05 81
F: +33 1 41 97 05 82

DTS Digital Cinema Italy

Edificio 17
Via del Forte Tiburtino 98
Roma 00159
Italy
T: +39 064 086 0058
F: +39 064 080 1525

DTS has combined its vast experience in conventional analog theatre sound systems with state-of-the-art digital signal processing technology. The result: the DTS XD10P Cinema Audio Processor, which we believe to be one of the finest cinema audio processors available today.

Overview

Engineered to deliver precise reproduction of both analog and digital sources, the XD10P is equipped with ample processing power to handle the most demanding cinema environments. Its high-reliability design is optimized to provide maximum flexibility in a single, cost-effective package. And when used together with the DTS XD10 Cinema Media Player, the XD10P Cinema Audio Processor rounds out a complete set of integrated audio tools that can accommodate all of your playback needs.

The XD10P offers a full compliment of features including matrix decoding, equalization, noise reduction and output master gain, for up to eight channels of high quality surround sound. Each channel has individual bass and treble controls, with one-third octave EQ adjustments for screen and surround channels and parametric EQ for the subwoofer. Equalization, A-type and SR-type noise reduction, as well as matrix decoding, are all accomplished in the digital domain for maximum flexibility and sound quality—with wideband, full-range outputs provided for all channels.

A-chain and B-chain alignment are easily accomplished using our Windows®-based XD10P setup program which facilitates faster setup by allowing EQ settings to be copied from one channel to another. Processor settings can also be downloaded to a PC, copied to another XD10P, or backed up to retain the original settings. In addition to PC back-up, a memory module is located on the XD10P's control card. Settings may be saved to this memory module and installed in another XD10P to conveniently move setup data from one unit to another.

Installation and maintenance concerns have also been carefully addressed in the XD10P's design. All signal processing functions are performed on three plug-in boards, accessible behind a removable front panel. The setup program provides adjustments for non-synchronized trim and surround channels when matrix decoding is used. Standard, unbalanced, line level non-sync sources can be connected to one of two pairs of RCA jacks, while two Status/Control connectors provide interface to theatre automation systems and external digital playback devices.

And, of course, support for DTS 5.1 channel digital playback is standard.

For a closer look, contact your local DTS authorized dealer or representative for more details.

Features

- Discrete sets of 8-channel analog and 8-channel digital (AES/EBU) inputs interface with a wide range of multi-channel sources
- Windows®-based software for A-chain and B-chain alignment and system setup can be localised for Spanish, Italian, French, German or Chinese
- Removable memory module provides back-up of all system settings
- One-third octave equalization for screen and surround channels
- Parametric equalization provided for subwoofer
- Dual stereo line-level non-sync inputs
- Microphone input for public address
- Dual stereo projector inputs with low-noise preamplifiers
- Advanced automation features including fader presets for each format
- Bypass mode routes signal from solar cell to screen via a linear matrix, providing stereo presentation with dialogue localized to centre channel to minimize impact on audience
- Main fader knob adjusts volume in bypass mode.
- Main power supply provides power for normal operation. Optional external power supply available, supporting bypass mode (optical only) as a backup capability



Specifications

Construction

- 2U 19" rack-mount standard chassis
- Removable front panel for access to plug-in modules

Signal Connections

- Standard 9-pin D-type female connectors:
Projector 1, Projector 2, Microphone, RS-232
- Standard 25 pin D-type female connectors:
Analog 8-channel input, Digital 8-channel input,
Automation input/output, Monitor output
- Detachable screw terminal connectors:
Automation input, Hearing Impaired output,
Line outputs, Changeover pulse and remote fader
- RCA jacks: Non-sync input

Signal Inputs

- Projector Inputs (2)
Voltage: 5 mV nominal
Impedance: 370 ohms
Input level adjustment: -24 dB to +12 dB (.5 mV to 32 mV)
High Frequency Boost: 10.5 kHz to 32kHz
- Non-synchronized 1 Input
Voltage: 300 mV nominal, unbalanced
Impedance: 30-kilohms
Input level adjustment: -24 dB to +12 dB (75 mV to 2 V)
- Non-synchronized 2 Input
Voltage (line): 300 mV nominal, unbalanced
Impedance (line): 30-kilohms
Input level: 300 mV nominal
- Microphone Input
Impedance (mic): 2-kilohms, balanced
Input level adjustment: -24 dB to +12 dB (.5 mV to 32 mV)
+9V phantom power supply
- Analog 8-Channel Input
Voltage (line): 300 mV nominal, unbalanced
Impedance: 30-kilohms
Input level adjustment: None
- Digital 8-Channel Input
Eight channels AES/EBU, 48 kHz sample rate

Signal Outputs

- Analog 8-channel Output
Voltage: 300 mV nominal, balanced
Impedance: < 500 ohms

Audio Signal Paths

- Headroom:
26 dB (EQ flat)
20 dB typical (with full EQ boost)
- S/N Ratio:
80 dB minimum, A-weighted

Equalization

- Subwoofer:
Parametric, adjustable 25 Hz to 100 Hz
- All other:
27 1/3-octave bands,
40 Hz to 20 kHz
- Level Adjust: Plus or minus 6 dB
- Bass/Treble: Plus or minus 6 dB

Automation Interface

Automation Inputs (DB25 and terminal strip)

- Active low, momentary dry contact closures (Contacts may be maintained, but must release before another automation signal can be activated.)

Automation Outputs (DB25 and terminal strip)

- Active low, 5V nominal through 1-kilohm resistor.
(Recommended indicator circuit is a standard LED with an additional external 1-kilohm series resistor.)

Power Supply

- Internal, fused, universal power supply
- 100 to 240 VAC, 50/60 Hz @ 0.5 amp, auto-switching
- Optional back-up power supply connection available

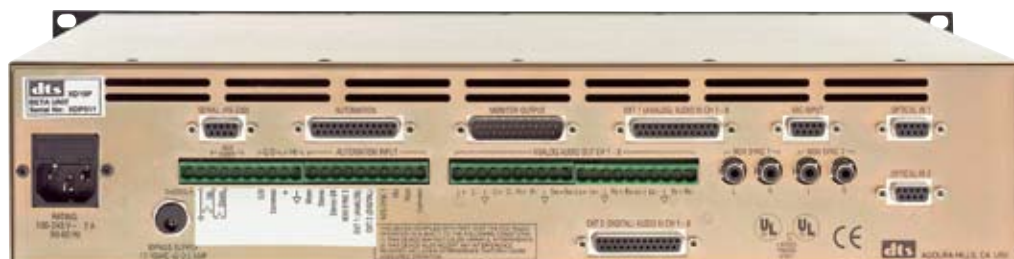
Hardware

Dimensions

- HWD 3.5" x 19" x 10.5"

Warranty

- Three years, parts and labour



Rear Panel