

SX-2000

Digital Cinema Server with Integrated Media Block

The stunning solution for both 2K and 4K digital cinema



SX-2000 Digital Cinema Server



Integrated Media Block

“ SX-2000 Digital Cinema Server with Integrated Media Block, GDC Technology's fifth generation digital cinema playback server is fully complied with DCI specifications.

The SX-2000 can support both 2K and 4K resolutions based on Texas Instrument's Enhanced DLP Cinema® technology, retaining all of the attractive SA-2100A's features. ”

SX-2000 Digital Cinema Server with Integrated Media Block (IMB)

The stunning solution for both 2K and 4K digital cinema



GDC SX-2000 with IMB achieves DCI compliance !

Unique Features

Supports Barco, Christie and NEC Series 2 Projectors

The SX-2000 seamlessly integrates with all Series 2 projectors including Barco, Christie and NEC to ensure highly reliable and secure content delivery.

Live 3D Support (Optional)

The SX-2000 comes integrated with 3D Demuxing (side-by-side) which makes receiving high-quality 3D broadcasts possible. It also provides a built-in integrated 3D decoder to seamlessly support 3D Live broadcast without requiring additional decoder.

Supports All Approved 3D Systems

The SX-2000 seamlessly integrates with numerous studio-approved 3D systems such as RealD, MasterImage, Dolby 3D and active 3D systems.



Up to 4TB of Redundant Hot Swappable Storage (Optional)

The SX-2000 comes with 3 hot swappable data drives that can easily be attached or detached.

The SX-2000 is able to remain operational in the event of a single drive failure, thereby minimizing downtime.



Instant Playback from CRU Drive Sleds*

The SX-2000 allows for instant playback from the CRU drive sleds without requiring content ingest, which reduces time to screening in emergency situations.

Finest 3D Playback

The SX-2000 provides the highest quality 3D playback with 12-bit 4:4:4 output images (left and right), providing 500 times more color spectrum than legacy servers.

USB 3.0 Interface (Optional)

The SX-2000 features an optional USB 3.0 interface that increases content ingest speed by approximately 2 times faster than a USB 2.0 interface.

Supports Closed Captioning Devices

The SX-2000 supports various closed captioning devices such as USL Closed Captioning Device and WGBH Rear Window Captioning Device to enhance the hearing or visual impaired cinema patron's movie-going experience.



Instant Playback from TMS Media Library#

The SX-2000 allows for instant playback from the Theatre Management System's (TMS) content library to the server, providing greater flexibility for show management.



Remote Access of the Screen Management System

Cinema operators can remotely access GDC servers using Theatre Management System (TMS) and Screen Management System (SMS) from a Windows® PC, or mobile devices such as the Apple® iPhone™.

SX-2000 Digital Cinema Server Technical Specifications

Physical

Dimensions	482(W) x 616 (D) x 177 (H) mm 4RU
Weight	25kg (55lbs)

Environmental

Operating temperature	5°C to 40°C (41°F to 104°F)
Operating humidity	20% to 90%, non-condensing
Operating altitude	10,000 ft. above sea level

Power

Power requirement	100 to 240V, 60 to 50Hz, 6 to 3A
Max power consumption	320W
Redundant power supplies	Redundant internal hot swappable x 2
Uninterrupted power supply (UPS) with surge protection (optional)	3-way, meets IEEE STD 587 Cat. A 6KV test

Video Specifications

JPEG 2000	4096 x 2160 - 24 (2D) (optional) 2048 x 1080 - 24 (2D), 24 (3D), 48 (2D)*
MPEG 2/MPEG 4	SD/HD
Packaging	SMPTE Digital Cinema Package (DCP), Interop DCP

Audio Output

Digital uncompressed audio	16/24-bit AES/EBU, 16 channels, 48/96 KHz D-sub 25-pin
Audio Offset	+/- 500 frames

System Interfaces

Ethernet	2 x RJ-45 (1x10/100 BaseT, 1 x 1000 BaseT)
USB 2.0	6 x USB A-Type Female
USB 3.0 (optional)	2 x USB A-Type Female
8-port GPI/Os	D-sub 25-pin (16-port GPI/Os is optional)
DVD-ROM drive*	Read speed 8x
CRU sled*	CRU-Dataport
DVB-ASI (optional)	BNC, CENELEC EN 50083-9 standard 270Mbps
RS232	D-sub 9-pin
Modem Interface with remote access software	

Storage

Redundant hot swappable 2000GB (Upgradable to 4000GB)
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Security

AES 128-bit encrypted data storage
Civolution (NexGuard®) forensic watermarking
FIPS 140-2 Level 3
DCI

Subtitles

Subtitle overlay on server
Projector Cinecanvas support

Reference Input

Analog Genlock

User Interface

External Panel Control (optional)	Integrated control of digital cinema servers and DLP Cinema® Projectors
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Windows® PC network control	Remote access to the screen management system (SMS) and server user interface
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Language Versions

English / Simplified Chinese / Traditional Chinese / Korean / Japanese / Spanish / French / Brazilian Portuguese
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Third-party Integration Options

TMS	GDC, Third-party*
3D system	RealD, Dolby 3D, MasterImage, active systems
4D system	D-Box Motion Code™, 4D plex
Closed Captioning Device	USL WGBH (Rear Window Captioning Device)

Integrated 3D Live Specifications

Video	MPEG 2/ MPEG 4
Audio	Dolby Digital (AC-3)* / MPEG 2 audio
3D Demuxing	Side by side / Third-party
Stream Format	UDP Multicast of MPEG 2 Transport Stream

* Only available in SX-2000A

* Supports Dolby Digital (AC-3) in pass-through mode only, which requires external AC-3 decoder or sound processor for integration

* 2D playback at 48fps requires updated projector software

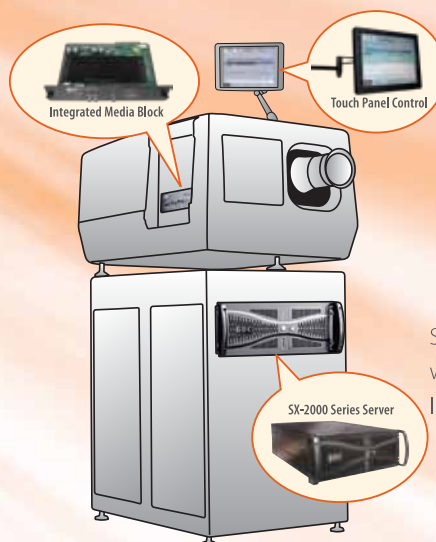
* Please check with your TMS provider

Subject to network stability and bandwidth limitation

SX-2000 Series Digital Cinema Server

The SX-2000 Digital Cinema Server is available in various configurations to suit the differing needs of cinema owners. Cinemas that already utilize a theatre management system (TMS) will find the SX-2000T a cost efficient choice. Meanwhile, cinemas not using TMS can benefit from the increased ingest options available in the SX-2000A.

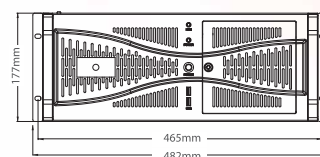
Model No.	SX-2000A	SX-2000T
Description	Advanced Model	Advanced Model for TMS Integration
DVD-ROM Drive	•	
CRU Sled	•	
Redundant Power Supply	•	•
GPI/O	•	•
Hot-swappable HDD x 3 units	•	•



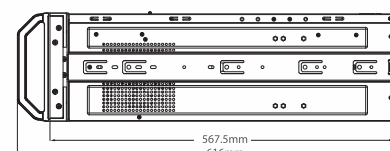
Series 2 DLP Cinema® projector with SX-2000 Series server and Integrated Media Block

SX-2000 Series Digital Cinema Server Technical Drawings

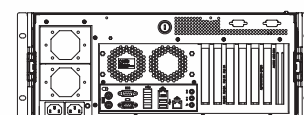
Front View



Side View



Back View



G•D•C

Powering your digital cinema experience

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GDC Tech manufacturing facility is ISO 9001 : 2008 certified.

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