NEW

SX-2001A Digital Cinema Server

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

Touch Panel Control (optional)

SX-2001A Digital Cinema Server

GDC Technology is proud to introduce the new **SX-2001A Digital Cinema Server with built-in Media Block**, our fifth generation digital cinema playback server designed to fully comply with DCI specifications. The SX-2001A ships with a FIPS 140-2 Level 3 Certified Media Block providing the highest level of security recommended by DCI.

The SX-2001A can support both 2K and 4K resolutions that is future–proof based on Texas Instrument's Enhanced DLP Cinema® technology, retaining all of the attractive SA-2100A's features such as:

- 2K/4K DCI MXF JPEG2000 playback
- DCI MXF JPEG2000 3D playback
- MPEG2 MXF Interop playback

- DCI approved forensic watermarking
- HDTV/Live3D live streaming capabilities
- Highly stable Linux-based operating system

- Ingest of Digital Cinema Packages (DCPs) via physical media, network and satellite

In addition, the SX-2001A offers increased storage capacity and flexibility with the following unique features.

Unique Features

Supports Barco, Christie and NEC Series 2 Projectors

The SX-2001A seamlessly integrates with all Series 2 projectors including Barco, Christie and NEC to ensure highly reliable and secure content delivery.

Integrated 3D Live support

The SX-2001A comes integrated with SENSIO® Hi-Fi 3D✱ and RealD LIVE✱, which makes receiving high-quality 3D broadcasts possible. The SX-2001A also features a built-in integrated 3D receiver-decoder (optional) to seamlessly support 3D Live broadcast without requiring additional receiver-decoder.

Supports All Approved 3D Systems

The SX-2001A seamlessly integrates with numerous studio-approved 3D systems such as RealD, MasterImage, Dolby 3D and active 3D systems.

Finest 3D Playback

The SX-2001A 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-2001A 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-2001A 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.

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

The SX-2001A comes with 3 hot swappable data drives that can easily be attached or detached. The SX-2001A is able to remain operational in the event of a single drive failure, thereby minimizing downtime.

Instant Playback from CRU Drive Sleds ✱

The SX-2001A allows for instant playback from the CRU drive sleds without requiring content ingest, which reduces time to screening in emergency situations.

Instant Playback from TMS Media Library

The SX-2001A 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™.

Optional Feature

Quad Link Option (SX-2001AQ)

The SX-2001A can also be upgraded to the SX-2001AQ which features four HD-SDI outputs. This option enables the SX-2001AQ to be used for highest quality 3D playback with dual stream 12-bit 4:4:4 output images to two projectors simultaneously.

Model SX-2001A

G·D·C

SX-2001A Digital Cinema Server Technical Specifications

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

Environmental
Operating temperature	5˚ to 40˚C (41˚ to 104˚F)
Operating humidity	20% to 90%, non-condensing
Operating altitude	10,000ft. 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	2048 x 1080 - 24 (2D), 48 (3D) 1920 x 1080 - 29.97 (2D), 30 (2D)
MPEG 2/MPEG 4	SD/HD
Packaging	SMPTE Digital Cinema Package (DCP), Interop DCP, DSR®

Video Output
Single link HD-SDI	SMPTE 292M 10-bit 4:2:2
Dual link HD-SDI	SMPTE 372M 12-bit 4:4:4, Dual SMPTE 292M 10-bit 4:2:2 (for 3D playback)
Quad link HD-SDI (optional)	Dual SMPTE 372M 12-bit 4:4:4, (for 3D or dual 2D playback)

Audio Output
Digital uncompressed audio	16/24-bit AES/EBU, 16 channels, 48/96 KHz D-sub 26-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/O	D-sub 37-pin
DVD-ROM drive ✹	Read speed 8x
HDD 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)

Security
AES 128-bit encrypted data storage
CineLink II™ link encryption
Civolution (Thomson NexGuard®) forensic watermarking
FIPS 140-2 Level 3

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
Windows® PC network control	Remote access to the screen management system (SMS) and server user interface

Language Options
English
Simplified Chinese
Traditional Chinese
Korean
Japanese
Spanish
French

Third-Party Integration Options
Cinedigm	Theatre Command Center® v3 Library Management Server®
ADDE	Theatre Management System (TMS) EyeCab™
Dvidea	Dvidea Cineasy™ Theatre Management System (TMS)
RealD	RealD 3D EQ
Dolby	Dolby 3D
WGBH	Rear Window Captioning Device
USL	USL Closed Captioning Device
D-BOX Technologies	D-BOX Motion Code™

Integrated 3D Live Specifications
|	
Video	MPEG 2 / MPEG 4
Audio	Dolby Digital (AC-3) ✹ / MPEG 2 audio
3D Demuxing	SENSIO® Hi-Fi 3D ✹ / RealD LIVE ✹ / Side by side
Stream Format	UDP Multicast of MPEG 2 Transport Stream

SX-2001 Series Digital Cinema Server

The SX-2001 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-2001T and SX-2001TQ a cost efficient choice. Meanwhile, cinemas not using TMS can benefit from the increased ingest options available in both the SX-2001A and SX-2001AQ.

Touch Panel Control

SX-2001 Series Server

Model No.	SX-2001	SX-2001Q	SX-2001T	SX-2001TQ	SX-2001A	SX-2001AQ
Description	Basic Model	Basic Model with Quad-Link	Advanced Model for TMS Integration	Advanced Model with Quad-Link for TMS Integration	Advanced Model	Advanced Model with Quad-Link
DVD-ROM Drive					●	●
HDD Sled					●	●
Redundant Power Supply			●	●	●	●
GPIO			●	●	●	●
Hot swappable HDD x 3 units			●	●	●	●
Quad-Link HD-SDI		●		●		●
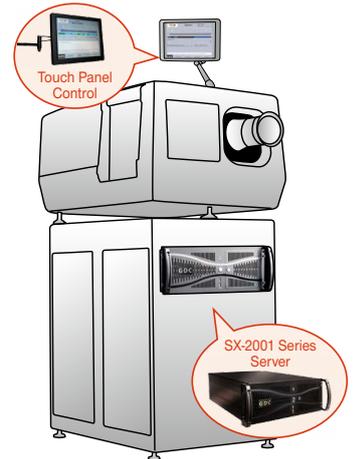
Series 2 DLP Cinema® projector with SX-2001 Series server

SX-2001 Series Digital Cinema Server Technical Drawings

177mm
465mm
482mm
Front View
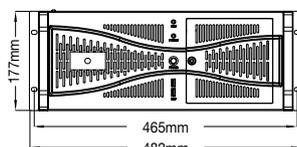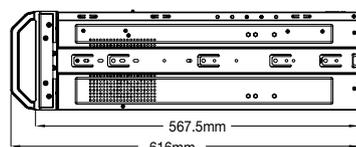
567.5mm
616mm
Side View
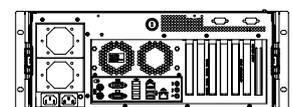
Back View

✹ Users must secure license directly from Sensio and RealD before activation of SENSIO® Hi-Fi 3D and RealD LIVE.

✹ Only available in SX-2001A and SX-2001AQ

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