



## DOLBY® Digital Cinema System

The Dolby® Digital Cinema system is a powerful, comprehensive, and reliable solution designed specifically for the cinema. We engineered it from the ground up for real-world projection booths with the flexibility to meet your needs for years to come. The foresight and approach to quality that you have come to expect from Dolby went into developing this system.

### Overview

The system comprises the Dolby Screen Server (DSS200) and Dolby Theatre Management System (TMS) software. The DSS200 combines a FIPS-certified media block with storage that houses digital content for playback. The media block decrypts the movie data and decodes the image. It outputs link-encrypted image data to the digital cinema projector and audio data to the cinema's sound processor (such as a Dolby CP750 or CP650, or a Dolby DMA8Plus Digital Media Adapter paired with another Dolby sound processor model\*).

We designed the DSS200 to be serviced easily. The unit slides out from the rack on rails, and the top lifts up for easy access to the hardware inside.

The custom-designed media block, reprogrammable to accommodate future developments in image and sound formats, assures you the highest-quality picture and sound. For security's sake, when the content is decoded, it is reencrypted before being passed on within secure hardware so pirates cannot reach valuable movie data.

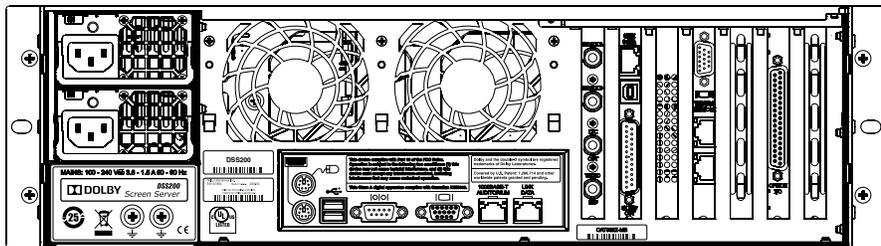
Theatre personnel can run the show locally or remotely via the Dolby TMS software, which includes familiar transport controls and also allows central network control, easy setup, scheduling, and monitoring.

\*CP500, CP65, CP200, CP45, or CP55

### Reliability Features Keep the Show Onscreen

- Dual redundant hot-swappable power supplies
- RAID 5 hard disk array with hot-swappable drives
- Hot-swappable cooling fans
- Maintains playback position in the event of a power failure
- Robust software design that isolates and prioritizes playback over all other activities

# DOLBY Screen Server (DSS200)



## General

### Image Decoding

Purpose-designed digital cinema image decoder supports content in JPEG 2000 and MPEG-2 formats; JPEG 2000 maximum bit rate 250 Mbps; supported frame rates 2D at 24 and 48 fps, 3D at 24 fps; 2K or 4K content playback at progressive scan 2,048 x 1,080; MPEG-2 maximum bit rate 140 Mbps; supported frame rates 23.98, 24, 25, 29.97, 30 fps; progressive scan 1,920 x 1,080; MP@HL

### Packaging Format

Supports MPEG Interop, JPEG Interop, and SMPTE packaging formats

### Audio Processing

16-channel audio on 8 x AES/EBU balanced digital audio outputs

### Security

2,048-bit RSA decryption for key delivery; 128-bit AES decryption for content; internal security manager for secure image and sound processing, SMPTE security logging, secure real-time clock; supports insertion of both video and audio watermarking; supports industry-standard key delivery messages (KDMs) and TI™ CineLink™ II (Diffie-Hellman and TLS)

### Subtitles

Supports TI CineCanvas™ and SMPTE 428-7-2007 subtitles

### Show Storage Capacity

Over 1,300 GB (formatted) internal content storage, enough for 10 features at 130 GB

### Content Hard Disk Drives

RAID 5 system for redundancy; user-serviceable, hot-swappable hard disk drives

### Power Requirements

100–240 VAC; 50–60 Hz; 250 W; front-panel power switch; dual redundant power supply

### Dimensions and Weight

3-U rackmount chassis; 686 x 483 x 133 mm (27 x 19 x 5.25 inches); net: 29.5 kg (65 lb)

### Environmental Conditions

Operating 0°C–40°C (32°F–104°F), fan cooling, 20%–80% relative humidity (noncondensing)

### Automation Options

Digital Failsafe option to enable “lights on” automation if playback stops; serial RS-232 port directly connects to cinema automation with serial control; Ethernet directly connects to cinema automation with Ethernet control

### Regulatory Notices

UL, FCC, CE, and RoHS compliant

## Front Panel

### Removable Media

Industry-standard removable hard disk drive bay and DVD-ROM drive for content and key delivery

### Status LEDs

Bicolor LEDs show status of power supply, temperature, and internal hard disk drives

### USB 2.0

Type A connector for key or content delivery, optional keyboard/mouse input

### Monitor Output

15-pin high-density female D-connector for optional VGA-compatible monitor to display user interface

## Rear Panel

### USB 2.0

Two type A connectors, for optional keyboard and mouse to operate user interface

### Network Connections

Three RJ-45 female connectors; 10/100/1,000Base-T with auto detection for auditorium network, theatre network, and future expansion; 1,000Base-LC optical fiber (optional, for theatre network)

### Serial Data

9-pin male D-connector, RS-232

### General Purpose Input/Output

Digital Failsafe option to enable “lights on” automation if playback stops; possible future expansion

### Monitor Output

15-pin high-density female D-connector for optional VGA-compatible monitor to display user interface

### Image Output

Two BNC female connectors, 75Ω, HD-SDI per SMPTE 292M

### Digital Audio Output

25-pin male D-connector, 16-channel output on 8 x AES/EBU balanced, 110Ω, transformer isolated, per AES3-1992

### Timecode Output

BNC female connector, unbalanced, output impedance 50Ω per SMPTE 12M

### Video Reference Input/Output

BNC female connector, can be switched between input and output; in output mode (the default), reference signal automatically matches the content being played