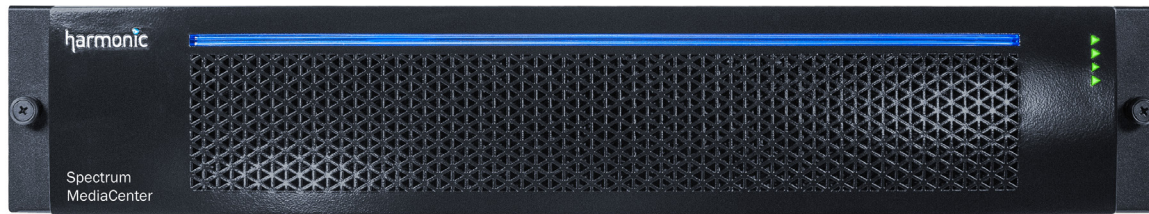


Spectrum™ MediaCenter 2200B

MEDIA SERVER WITH INTEGRATED STORAGE



Ideal for moderate (up to 20) channel-count applications, the Spectrum™ MediaCenter 2200B media server from Harmonic provides file system and communication management and storage for video and audio ingest and playout at a compelling price point.

I/O on the 2-RU MediaCenter 2200B is provided by up to 10 Spectrum X advanced media server systems, Spectrum ChannelPort integrated channel playout (ICP) systems or Spectrum MediaPort 7000-series I/O modules, which provide video/audio interfaces as well as encode and decode for record and playback. Clients have access to FTP, CIFS and AFP file transfer via dual 10-GbE connections. Combined, these capabilities provide network throughput of up to 225 MBps (depending on real-time play/record activity).

Storage options include up to 48 TB of integrated SAS storage, and up to 96 TB of external storage via the Spectrum MediaStore 7200 expansion storage chassis.

For ICP applications, MediaCenter 2200B supports the Spectrum X and Spectrum ChannelPort systems. Ultra HD and 3G channel-in-a-box capabilities are also supported with Spectrum X, as is SDI and IP I/O to ease the migration to IP workflows. Whether configured with MediaPort, Spectrum X or ChannelPort, the MediaCenter 2200B helps you meet your master control requirements today while allowing for future expansion.

Rock-Solid Reliability

All Spectrum media server systems are designed specifically to isolate potential problems so that a failure of one component does not disrupt operations across the rest of the system. Redundancy features include:

- Disconnection of a media I/O module causes only that unit to stop operating until replaced or reconnected, while no other component in the system is affected.
- Failure of a power supply does not disrupt system operation. A replacement power supply can be hot-swapped while the system is running.
- Failure of a disk drive does not result in loss of content or even a dropped frame.
- Dual redundant SAS connection to MediaStore 7200 expansion storage chassis

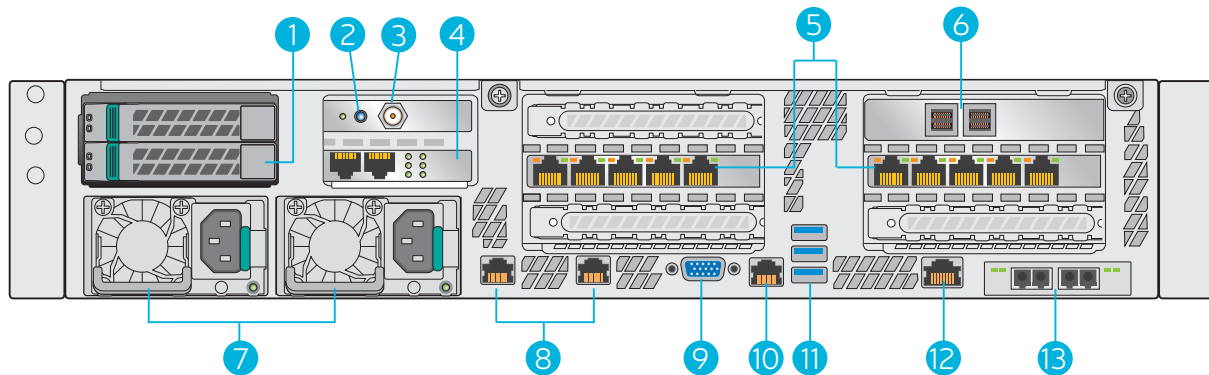
The isolation of component failures to minimize overall system impact is a key architectural advantage of the MediaCenter 2200B server. It lowers the risk of a catastrophic failure, since the impact of any one component is limited to only a portion of the system, and failed components can be quickly replaced while the system remains operational.

HIGHLIGHTS

- Compact media server solution for up to 20 channels
- Choice of integrated storage: 16-, 32- or 48-TB usable
- Optional external expansion storage, up to 96 TB usable
- Easily add features to support new services, ensuring complete investment protection
- Implement best-of-breed solutions for transmission, studio production, news and sports highlights, and distributed broadcast workflows
- Choose from hundreds of applications, enabled by broad support built around open standards and APIs
- Support for uncompressed IP workflows via SMPTE ST 2022-6 I/O

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| 1. Boot drive | 6. Serial-attached SCSI (SAS) connectors (two 4-port connectors with DS model) | 10. RS-232 serial (for Service only) |
| 2. Power button/LED | 7. Redundant, hot-swappable power supplies (0, 1 from left to right) | 11. USB ports (for Service only) |
| 3. LTC In connector | 8. 10-Gb Ethernet ports (for file transfers) | 12. MC (for Service only) |
| 4. 1-Gb Eth ports (1, 2 from left to right, for system management) | 9. VGA port (for Service only) | 13. 10-Gb optical SFP (optional, for file transfers) |
| 5. MediaPort Ethernet array | | |

Rear view of the MediaCenter MCP-2200B chassis

MediaCenter Features

Spectrum Modular Architecture

The Spectrum media server system is built on a modular architecture that allows for maximum configuration flexibility and adaptability to future needs. Every system can be precisely tailored to each customer's unique requirements, and new channels can be added at any time. Software license upgrades are available to increase channel capabilities without requiring new hardware.

Flexibility to Fit Any Workflow

The flexible MediaCenter 2200B server supports up to 20 channels at 50 Mbps or 10 channels at 100 Mbps. It is ideal for a variety of advanced file-based workflows, including ingest, transmission, live studio production and news production, as well as for facilities requiring simultaneous support for multiple applications.

Utilizing MediaPort, ChannelPort or Spectrum X for I/O, the MediaCenter 2200B server provides broad support for a wide range of production and playout formats — including AVC-Intra, ProRes and PitchBlue® — and file wrappers, including QuickTime and MXF. Playout channels can perform up-, down- and cross-conversion without channel-count or performance penalties, and can play back any mix of SD and HD content on a single timeline. SD/HD simulcast is also available on every channel. Spectrum X additionally enables support for simulcast outputs with HD, 3G and UHD resolution, including up- and down-conversion of this material on the same timeline.

Media Processing Performance

MediaCenter 2200B provides a wide range of powerful media processing functions, including:

- Back-to-back playback of clips of different formats
- Simultaneous proxy creation during recording
- Support for up to 16 channels of embedded audio per video clip
- API-based audio track manipulation for multi-language applications
- Edit-in-place for multiple Apple® Final Cut Pro® or Adobe® Premiere® Pro seats
- Aspect ratio signaling to downstream equipment
- Optional closed-caption and SCTE-104 file insertion
- Full VBI and VANC support
- TS ingest and SMPTE ST 2022-6 I/O

Storage Options

MediaCenter 2200B is available with a choice of SAS storage configurations: 16 TB (approximately 600 hours at 50 Mbps) using 2-TB drives, 32 TB (approximately 1,200 hours at 50 Mbps) using 4-TB drives, or 48 TB (approximately 1,800 hours at 50 Mbps) using 6-TB drives. All HDD storage is protected with Spectrum's robust RAID 6 (dual parity) technology.

Spectrum MediaStore 7200 provides optional expansion storage to increase the capacity and performance of MediaCenter 2200B. MediaStore 7200 is ideal for customers with high bitrate codecs and 3G or UHD rasters, due to its ability to support high storage bandwidth and large media files. Multiple configurations are offered to meet the specific needs of each workflow.

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SPECIFICATIONS

VIDEO

Video Channels	20 @ 50 Mbps 10 @ 100 Mbps 6 @ 3G I-frame
Video I/O Modules	Up to 10 dual-channel Spectrum X, ChannelPort or MediaPort 7000-series modules per MediaCenter chassis
Integrated HDD Storage	12 2-TB SAS drives (standard), 16 TB usable in two 4+2 RAID sets (600 hours at 50 Mbps) 12 4-TB SAS drives (optional), 32 TB usable in two 4+2 RAID sets (1,200 hours at 50 Mbps) 12 6-TB SAS drives (optional), 48 TB usable in two 4+2 RAID sets (1,800 hours at 50 Mbps)
Expansion HDD Storage	Spectrum MediaStore 7200
Network	Two 1-GbE ports for system management Two 10-GbE ports for file transfer Access to FTP, CIFS and AFP services
Reference	Per MediaPort or ChannelPort module or Spectrum X SDI I/O card Support for multiple timing standards

POWER

Power Supply	Dual redundant, hot-swappable
Input Voltage	100-240 VAC
Line Frequency	50-60 Hz
Consumption	350 W maximum

PHYSICAL

Dimensions (W x H x D)	17.5 in x 3.5 in x 30.75 in (2 RU)/ 44.3 cm x 8.9 cm x 78.1 cm
Weight	43.3 lbs/19.6 kg (12 disk drives)

ENVIRONMENTAL

Operational Temperature Range	40° to 104° F/+5° to 40° C
Operational Relative Humidity	10-80% non-condensing

STANDARDS & REGULATIONS

Safety	UL 60950-1 2nd Edition CSA C22.2 Information Technology Equipment - Safety - part 1: General Requirements
CE	Low Voltage Directive (73/23/EEC) EN60950:1992, A1+A2+A3+A4 Safety of Information Technology Equipment
Electromagnetic Compliance	USA: FCC Part 15 Class A Japan: VCCI Class A Australia, New Zealand, EU: CISPR 22 Class A Taiwan: CNS 13438 Class A Canada: ICES-003 Class A EU: EN55022/EN55024 Class A Korea: KN22/KN24 Class A

ORDERING INFORMATION

Part Number	Description
MCP-2200B-2X0	MediaCenter 2200B with 12x storage drives and optical 10G NIC
MCP-2200B-2XC	MediaCenter 2200B with 12x storage drives and copper 10G NIC
MCP-2200B-DS-2X0	MediaCenter 2200B with 12x storage drives, optical 10G NIC, and dual SAS connection to MSS-7200 expansion storage
MCP-2200B-DS-2XC	MediaCenter 2200B with 12x storage drives, copper 10G NIC, and dual SAS connection to MSS-7200 expansion storage
MCP-2200B-HDD-C2H	12x 2-TB HDDs for MCP-2200B
MCP-2200B-HDD-C4H	12x 4-TB HDDs for MCP-2200B
MCP-2200B-HDD-C6H	12x 6-TB HDDs for MCP-2200B

SPARES KITS

Part Number	Description
SPR-PSU-1100-INTEL-001	Power supply, 2 RU
SPR-FAN-2U-INTEL-001	Fan, 2 RU
SPR-SPECT-HDD-2TB-SAS-001	Spare 2-TB SAS HDD
SPR-SPECT-HDD-4TB-SAS-001	Spare 4-TB SAS HDD
SPR-SPECT-HDD-6TB-SAS-001	Spare 6-TB SAS HDD