

Modulus M2

More power, speed, and features in this extraordinary HT system



What could possibly improve upon the world's first all-in-one, integrated media source, the Modulus M1? It's the M2!

The **Modulus M2** revolutionizes home and commercial video systems with a sleek new version. How about **80TB** of internal storage capacity, and even more storage can be added while in the rack without opening the case. The M2 eliminates need for NAS servers, with integrated physical **disk backup**, yet is infinitely expandable with NAS server support. We added an internal **UHD 4K disc drive**, new **bleeding-edge 4K graphics**, and CPU technology that make using the M2 a thrill for its speed and visual clarity. The M2's **video-over-IP** makes matrix switchers obsolete!

- **Premium DVR** for cable or antenna TV that records 6 channels at once, **auto-skips commercials**, and enables whole-home TV without set-top boxes or RF cabling
- **Advanced Movie Server** that can import 4 UHD discs in parallel and upscale Blu-ray content to 4K quality
- **Streaming Player** that can **Record** movies and shows from any streaming service
- **UHD 4K Optical Drive** that can *play and import* UHD Blu-ray's, DVDs, CDs & more
- Import, store and enjoy **Home Videos**, photos, and musical recordings

- Up to 80TB of **Internal Storage** for 16,000 DVR hours / 10,000 DVDs / 2,400 Blu-rays / 1,200 UHD discs
- Supports **NAS** servers for unlimited storage
- Comprehensive **User Settings** including parental controls
- Optional **Integrated Backup**
- **Distribute** live / recorded TV, movies, music, and more over Ethernet with the **Mx1 Mini**
- **Remote content playback** via IOS and Android apps
- Supports major **Smart Home Control Systems**
- Rechargeable **RC-1 Remote** controls all M2 functions with integrated QWERTY keyboard, earphone jack, air mouse, and user-friendly voice command



Modulus M2 Specifications

Specification	
Product Dimensions	86mm H x 443mm W x 262mm D
Power Supply	120/240V, 90W, 12V DC power adapter
Shipping Weight	16.8 lbs. (w/ 1 HDD) / 22.8 lbs. (w/ 4 HDDs)
Operating System	Modulus O.S. (based on Linux kernel 5.17+)
System / Application Storage	128GB internal M.2 Solid State Device (SSD)

Media Storage	<p>4 x 3.5" SATA 6Gb/s high-speed disk drive bays Disks may be added from front, while in rack 10TB - 80TB internal HDD storage (or 8TB – 60TB internal SSD storage) LVM: 1 expandable file-system for all storage NAS server support permits unlimited storage External USB drive support extends internal storage</p>
Integrated Backup (option)	<p>1 or 2 physical disks designated for media backup Hardware support for RAID 0, 1, 5, and 10</p>
CPU	<p>Intel 12th-Gen G7400TE @ 3.0 GHz, 7nm litho 6MB Smart Cache, PCI 5.0, hyper-threaded cores</p>
Memory	<p>8GB (2x 4GB DDR4, 4000 MHz)</p>
Video / GPU	<p>Intel UHD Graphics 710: 1.35 GHz GPU HDMI 2.1 (4096x2160 @ 60 Hz), with HDCP 2.3 Intel Clear Video HD Technology + Intel QuickSync A/V input support for webcams (for office apps)</p>
Audio	<p>HDMI audio: PCM or bitstream passthrough modes PCM mode decodes digital audio; passthrough mode uses external decoders Realtek ALC4080 analog Codec, supports DTS:X Ultra</p>
Networking	<p>Intel 2.5GbE Ethernet LAN chip Wi-Fi 6: WIFI a, b, g, n, ac, ax; 2.5+5 GHz dual-band Bluetooth 5.2</p>

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UHD / Blu-Ray / DVD / CD discs	<p>Ultra-thin tray-load UHD / BD / DVD / CD optical drive Up to 4 simultaneous imports (w/ accessory drive) remote Mx1 disc import into M2 (w/ accessory drive) Support for audiophile music formats: SACD, DSD, DSF, OGG, FLAC</p>
DVR Recording Capacity	<p>Up to 16,000 hours</p>

Internal Movie Disc Capacity	Up to 10,000 DVD / 2,400 Blu-ray / 1,200 UHD discs M2 servers may be pooled to support up to 4x more NAS server support permits unlimited storage
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Specification	
Internal Music CD Capacity	Up to 100,000 Compact Discs
Inputs	3 x USB 3.2 Gen 2 Type-A ports (red) 2 x USB 3.2 Gen 1 ports 2 x USB 2.0 ports RF: RG-59 Coaxial CableCard: M-Card multi-stream (U.S.) 2 x SMA WiFi antenna connectors (2T2R)
Outputs	1 x HDMI, up to 4096x2160 @ 60Hz 1 x 2.5GbE RJ-45 port 2 x analog audio jacks
# Simultaneous TV recordings	Cable Tuner - up to 6 per M2; OTA Tuner - up to 8
Maximum # of Modulus Clients	16 (Mx1) clients per M2 server can chain M2 servers to support hundreds of clients
LED Indicators	2 x RGB LED power + status indicators
Remote Content Playback	Supported for Android and iOS devices (phones, tablets, and laptops), both browsing and playback No need to open ports in home firewall Supported content: Recorded TV, Collections, Movie Library (disc & video file content); Music Library, Recorded Streaming Library, Personal Videos, and Personal Photos
Remote Control	MMS-RC-1 Ultimate RF Remote w/ QWERTY keyboard, air mouse, mic input, earphone output, backlit; can replace up to 3 other IR-based remote controls

Modulus Remote Control Specifications

Specification	
Communication Technology	RF for Modulus buttons, air mouse, and voice input; IR for learning and control of other devices (TV/Receiver)
Buttons	Front: Power, Mouse, Home, Menu, Guide, Exit, Comm Skip, L/R/Up/Dn, Select, FF/Rev, Record, Ch +/-, Last Ch, Vol +/-, Mute, Play/Pause, Mic Talk, Audio, Settings, Input, Delete, Info, Numeric keys Back: full physical QWERTY keyboard
Air Mouse	Motion tracking select (auto-disables during keyboard use)
Voice Input	Mic, supports both commands and search phrases
Headphone Jack	Mini-audio jack for headphone / earphone private listening
IR Learning	Accepts IR codes from other remotes supporting basic device functions (Power, Vol up, Vol down); all other functions (e.g., mute, channels, menus, etc.) are controlled by Modulus
Control via HDMI	CEC standard support: optional control of other HDMI-connected devices (e.g., TV, Receiver ...)
Backlighting	All keys are auto-backlit on motion, both front and back sides
Power / Docking Station	Extended-life 800mA rechargeable battery, with included fast-charge docking station; may also be charged through any USB 3.0/2.0 device

