

Cisco Explorer 8700 Cable DVR Family

The Cisco Explorer® 8700 DVR Family provides a redesigned appearance that is smaller than previous set-top models to be in harmony with today's home electronics. This innovative DVR delivers imagery with high-definition 3D video and 3D graphics capability. The larger hard drive capacity options make having to choose which recording to keep a thing of the past. The new, highly integrated DVR architecture lowers energy usage and overall environmental impact.

The 8700 DVR family with optional Multimedia over Coax Alliance (MoCA™) technology delivers its multimedia content throughout the home - sharing and managing video and audio experiences between the television and other home network devices.

The 8742HDC has earned the ENERGY STAR® 4.

Figure 1. Cisco Explorer 8700 DVR (image may vary from actual product and specification)



Features

Small, Higher-End Appearance

- **Reduced Size** (30% smaller, L x W, than predecessor) enables discreet placement and provides overall reduction of shipping/inventory space and environmental impact

Enables More Realistic Viewing Experience

- **1080p60 Output** resolution (optional software)
- **Full HD 3DTV** provides 1080p/24 frames-per-second for each eye (optional software)

Supports Future UI and Application Needs

- **1300 DMIPS Application Processor** for high performance applications
- **ARM Mali 200 3D Graphics Processor** with Open GL ES 2.0 (optional software)

tru2way and Network Utilization Enhancements

- **Axiom™ DVR Middleware** supports tru2way™ applications (optional software)
- **M-Card™ Interface** uses a Multi-Stream CableCARD for separable security
- **DOCSIS® Set-top Gateway (DSG)** provides for command and control (optional software)

DVR and Home Networking Features

- **Dual-tuner DVR** allows one program to be recorded while viewing or recording another
- **500 GB Internal Hard Drive** stores up to 280 hours of SD or 62 hours of HD programs
- **1.0 TB Internal Hard Drive** stores up to 560 hours of SD or 124 hours of HD programs (optional hardware model)
- **MoCA Connection** enables an IP LAN connection over coaxial cable, which minimizes the need for new wiring in the home
- **Digital Transmission Content Protection over IP (DTCP-IP)** provides encrypted content protection, such as “copy-one-generation” or “copy-never” based upon content’s copy control information (CCI), when output through an IP connection to an authenticated device
- **Whole Home DVR** enables sharing and managing of video services throughout the home to other connected DVRs, set-tops, and consumer electronic devices using DLNA standards based connection and security technologies (optional software)
- **Personal media player** enables display of photos and playback of video and audio from DLNA standards based home network connected devices (optional software)

Figure 2. Cisco Explorer 8700 DVR Front Panel (image may vary from actual product and specification)



Table 1. Front Panel Features

Feature	Description
Connections	USB 2.0 Host, software controlled
Controls	IR Receiver, Capacitive Touch 10 Buttons: Power, List, Exit, Info, Guide, Vol+, Vol-, Ch+, Ch-, Select
Indicators	Four 7-segment digits, Power (icon), Message (icon), Record (icon), Home Networking (icon), HDTV, 5.1, Auto, 1080i p, 720i p, 480i p, software controlled
Color	Black finish, black lens, black buttons, gray text
Branding	Cisco, model number, provision for service provider branding, HDTV Cable

Figure 3. Cisco Explorer 8742HDC Back Panel (image may vary from actual product and specification)

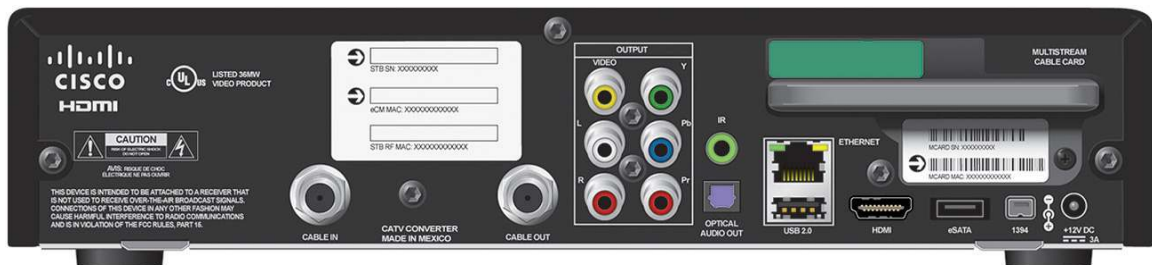


Table 2. Back Panel Features

Feature	Description
Connections In	Cable In
Connections Out	HDMI™ with CEC, YPbPr, Optical Digital Audio, Video, L/R Audio, IR, TV Cable Out, IEEE-1394 4-Pin, software controlled, see Note 1
Output Resolutions	1920 x 1080p 60 Hz, 1920 x 1080i 60 Hz, 1920 x 1080p 30 Hz, 1920 x 1080p 24 Hz, 1280 x 720p 60 Hz, 720 x 480p 60 Hz, 720 x 480i 60 Hz, software controlled, see Note 1
Output Control	Scaled video in graphics, scaled HD video in graphics, graphics on HD and SD outputs, aspect ratio control, native resolution pass-thru, HD down convertible to SD, software controlled
Connections-Interactive	M-Card Interface, eSATA, USB 2.0 Host, RJ-45 Ethernet, DTCP-IP on Ethernet, Cable In with MoCA, DTCP-IP on MoCA, software controlled
Power Input	Polarized 2-prong modular cord plug, 115 VAC, 60 Hz
Labels	Serial Number, RF MAC Address, eCM MAC Address, Cisco, FCC, UL, Shock Warning, CATV Converter, Made In OPTIONAL (if M-Card module is included): M-Card Serial Number, M-Card MAC Address, Removal evident M-Card label
Labels-Bottom	Cisco, STB Model, Assembly P/N, Rev, Date, FCC, RSA

Specifications

Table 3. Product Specifications

Specification	Value
Tuning and Decoding	
DVR	Dual Tuning, Dual Record, Pause, Rewind, Fast-Forward, Record one program while viewing or recording another, software controlled
Picture in Picture	Digital, HD, software controlled
Tuning	Dual QAM 64 or 256, In-Band 54 MHz - 1 GHz, QPSK out-of-band (OOB) 70-130 MHz, DOCSIS 91-867 MHz, MoCA 1.0-1.5 GHz
Video Decoders	Dedicated Dual 400 MHz VLIW CPU Processors, Dual MPEG-4 (H.264) up to HP@L4.0 (HD), Dual VC-1 AP@L2&3, Dual MPEG-2 up to MP@HL, 1920 x 1080i 60 Hz, 1920 x 1080p 30 Hz, 1920 x 1080p 24 Hz, 1280 x 720p 60 Hz, 720 x 480p 60 Hz, 720 x 480i 60 Hz, video scaling, software controlled
Audio Decoders	Dedicated 250 MHz DSP CPU Processor, Dolby™ Digital to 5.1, MPEG-1 and MPEG-2, BTSC/SAP, Dolby Digital+, AAC, AAC+, software controlled
Conditional Access	Separable security with M-Card interface OPTIONAL: PowerKEY M-Card Module Included, non-Cisco M-Card Module Included
Encoders	Audio BTSC for TV Cable (RF) Output, software controlled
Graphics Engine	Arm Mali 200 3 Dimension graphics processor, up to 1920 x 1080 resolution, 32 bit (16 million) color, OpenGL ES2.0-compatible, software controlled
DAVIC	DAVIC 1.2, QPSK FDC at 1.5 Mbps, QPSK RDC at 1.5 Mbps, software controlled
DOCSIS	OOB and Interaction via DOCSIS 2.0, DOCSIS Set-top Gateway, Baseline Privacy Interface, software controlled OPTIONAL: 3dB DOCSIS upstream power boost
Memory/Storage	
Unified RAM	512 MB, see Note 2 OPTIONAL: 1 GB
Flash	2 MB
CPU NVM	16 KB
Hard Drive	500 GB, Internal SATA, 1.5 Gbs OPTIONAL: 1 TB
Boot Partition on HDD	256 MB, see Note 3
Hard Drive Expansion	External SATA (eSATA), 1.5 Gbs, on rear panel, software controlled

Specification	Value
Processors	
Application/CPU	GAIA, 885 MHz (1300 DMIPS)
Video/Graphics	Dual 432 MHz VLIW CPUs
Audio	250 MHz DSP CPU
DOCSIS CPU	333 MHz CPU
Network CPU	432 MHz CPU (650 DMIPS)
MoCA CPU	200 MHz CPU
Dimensions	
Product (HxWxD)	2.9 in. x 12.0 in. x 9.4 in. (7.3 cm x 30.4 cm x 23.8 cm)
Product Weight	5.25 Lbs
Carton (HxWxD)	11.6 in. x 11.0 in. x 13.2 in. (29.5 cm x 27.9 cm x 33.5 cm) 3 units per carton, 90 Units in 30 cartons per Pallet
Total Weight	18.4 lbs in Carton, 610 lbs on Pallet
Operating Conditions	
Placement	Locate with at least 2 inches of open space above and on each side
Room Temperature	32 to 105°F (0 to 40°C) during operation
Power Dissipation	35 W maximum ENERGY STAR (Version 3, 2011)

Table 4. Accessories

Specification	Value
In Carton	
	Power Cord, Quick Reference Guide, HDMI-to-HDMI Cable
Sold Separately	
	Axiom DVR Middleware License, see Note 2
	PowerKEY® Multi-Stream CableCARD PKM803
	AllTouch AT8560 Remote Control
	HDMI-to-HDMI Cable (additional or replacement)
	YPbPr and L/R Cable Set
	IR Extender (3.5 mm) - 12 ft
	Part Number
	4014594
	4029532
	4016237
	1002048
	1000944
	1004648

Ordering Information

Table 5. Ordering Information

Model	Description	Part Number Set-Top with PowerKEY M-Card Module	Part Number Set-Top with Alternate M-Card Module
Explorer 8742HDC	8742HDC, HD Digital Only MPEG-4/-2 DVR with 500 GB HDD, 512 MB RAM, DOCSIS, Ethernet, MoCA, DTCP-IP, and M-Card Interface (Mult=3)	4038123	N/A
Explorer 8742HDC	8742HDC, HD Digital Only MPEG-4/-2 DVR with 1 TB HDD, 512 MB RAM, DOCSIS, 3dB DOCSIS Boost, Ethernet, MoCA, DTCP-IP, and M-Card Interface (Mult=3)	4044168	4044170 (Cox w/ MediaCipher™ Card)

Notes:

1. 1080p/24 or 1080p/30 output formats are available on HDMI, if those formats are presented to the set-top box at its input. Incoming video formats will not be converted to either of these for output. Output of these formats is under software control.
2. Axiom DVR Middleware for tru2way (formerly OCAP) support is recommended only for the 8700 models that have 512 MB RAM.
3. Boot Partition provides space on the hard drive for storing the set-top's core software. Additional non-core application storage space may be made available on the hard drive. The Boot Partition is analogous to a portion of the role traditional flash memory serves on non-hard drive set-tops.
4. Set-top boxes that earn the ENERGY STAR reduce greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. ENERGY STAR is a registered mark owned by the U.S. government.

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