

Cisco Explorer 4540HD Set-Top

The Cisco® Explorer® 4540HD Set-Top delivers features such as video-on-demand (VOD) to pay-per-view (PPV) with pristine video and audio. Service providers can elevate the service bundle with higher-quality audio and video to enhance their subscribers' experience.

Figure 1. Explorer 4540HD Set-Top (image may vary from actual product and specification)



Features

Network Utilization Enhancements

- *1 GHz tuning* allows service providers to expand network bandwidth to provide additional services such as HD and VOD, VoIP video, and high-speed data
- *MPEG-4 Part 10 (H.264) decoding* supports compression technology that provides better video quality at about half the data rate of MPEG-2
- *DOCSIS® 2.0* provides greatly increased upstream throughput for future advanced services and provides a path for future IP video services (optional software)
- *Digital-only tuning* provides a clear, noise-free picture to the display device

Tru2way and Conventional Network Support

- *PowerKEY® Conditional Access System* secures digital services using symmetric encryption algorithm for content protection
- *Axiom™ middleware* supports tru2way™ (formerly OCAP™) applications such as Service Navigators, Games, and many other future applications (optional software)
- *DSG (DOCSIS Set-top Gateway)* provides a powerful standard transport mechanism for command and control signaling between the set-top and the service provider's network (optional software)
- *SARA software* on a set-top provides a native navigator and user interface in a non-tru2way service provider network environment (optional software)
- *DAVIC receiver/transmitter* allows IP-based, real-time, two-way communication between the set-top and the service provider's network for services such as on-demand service (optional software)

Tuning and Home Networking

- *USB 2.0 connection* enables a host connection to peripheral devices such as navigation controllers and network adapters (optional software)
- *Ethernet connection* enables a connection to the home IP LAN for advanced services (optional software)

Figure 2. Explorer 4540HD Set-Top (image may vary from actual product and specification)



Table 1. Front Panel Features

Feature	Description
Controls	IR receiver, Power, Settings, Exit, Info, Guide, Vol+, Vol-, Ch+ Ch-, Select
Connections	USB 2.0 host, software-controlled
Indicators	Four-segment LED digits, Power icon, Message icon, HDTV, 5.1, Auto, 1080i/p, 720i/p, 480i/p
Color	Silver panel, black lens, silver buttons, dark grey button text, white button text

Figure 3. Explorer 4540HD back panel (image may vary from actual product and specification)



Table 2. Back Panel Features

Feature	Description
Connections In	Cable In
Connections Out	HDMI™ 1.2, YPbPr, Optical Digital Audio, Coax Digital Audio, Video 1, dual L/R Audio, S-Video, IR, TV Cable Out, dual IEEE-1394 4-Pin, software controlled
Output Resolutions	1920x1080i 60 Hz, 1280x720p 60 Hz, 720x480p 60 Hz, 720x480i 60 Hz, software controlled
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 downconvertible to SD, software controlled
Power Input	Polarized 2-prong modular cord plug, 115 VAC, 60 Hz
Labels	Serial Number and RF MAC Address

Product Specifications

Table 3. Product Specifications

Specification	Value
Tuning and Decoding	
Tuning	Single QAM 64 or 256, In-Band 54 MHz to 1 GHz, QPSK Out-of-band 70 to 130 MHz, DOCSIS 91 to 867 MHz
Video Decoders	Dedicated 400 MHz VLIW CPU Processor, MPEG-4 Part 10 /H.264 up to HP@L4.0 (HD), VC1 AP@L2&3, MPEG-2 up to MP@HL, 1920x1080i 60 Hz, 1920x1080p 30 Hz, 1920x1080p 24 Hz, 1280x720p 60 Hz, 720x480p 60 Hz, 720x480i 60 Hz, Video Scaling
Audio Decoders	Dedicated 250 MHz DSP CPU Processor, Dolby™ Digital to 5.1, MPEG 1 & 2, Dolby Digital+, AAC, AAC+
Conditional Access	PowerKey Conditional Access System
Encoders	Audio BTSC for TV cable (RF) output
Graphics Engine	2.5 Dimension graphics, up to 960x540 resolution, 32 bit (16 million) color
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 (DSG), Baseline Privacy Interface, software controlled
Memory/Storage	
CPU/Apps RAM	Minimum of 192 MB
Video Graphics	32 MB
CPU Flash	Minimum of 128 MB
Boot Flash	2 MB
CPI NVM	Minimum of 16 kB
Processors	
Application/CPU	600 MHz (800 MIPS)
Video Graphics	400 MHz VLIW CPUs
Audio	250 MHz DSP CPUs
DOCSIS	200 MHz CPU
Dimensions	
Product (HxWxD)	2.75 in. x 13.75 in. x 8.5 in. (69.85 mm x 349.25 mm x 215.9 mm)
Product Weight	4.25 lbs. (1.93 kg)
Carton (HxWxD)	15.75 in. x 18.125 in. x 10.75 in. (400.05 mm x 460.38 mm x 273.05 mm)
Total Weight	23.45 lbs. (10.64 kg)
Environment Specifications	
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	40 W maximum

Table 4. Accessories

Location	Description	Part Number
In Carton		
	Power cord, connection guide, YPbPr component video cable, L/R audio cable	
Sold Separately		
	AllTouch® AT8550 remote control	4006369
	AllTouch® AT8560 remote control	4016237
	HDMI to HDMI cable	1002048
	HDMI to DVI cable	1002056
	YPbPr and L/R cable set (additional or replacement)	1000944
	RGB adapter and cables	749790
	IR Extender – 12 ft.	1001807
	IR Extender – 25 ft.	4006725

Ordering Information

Table 5. Ordering Information

Model	Description	Part Number
Explorer 4540HD	4540HD, HD Digital-Only MPEG4/2, with 192 MB CPU RAM, 32 MB Video RAM, DOCSIS & Ethernet	4019375
AllTouch® AT8550	Remote control	4006369
AllTouch® AT8560	Remote control	4016237
HDMI Cable	HDMI to HDMI cable	1002048
HDMI to DVI Cable	HDMI to DVI cable	1002056
YPbPr and L/R cable set	Additional or replacement	1000944
RGB adapter	RGB adapter and cables	749790
IR Extender	12 ft.	1001807
IR Extender	25 ft.	4006725

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