Subscriber Products

Explorer® 8000HD™ Home Entertainment Server

Description

Scientific-Atlanta's Explorer® 8000HD™ Home Entertainment Server will combine three compelling video services into one integrated set-top: high-definition (HD) programming, digital video recorder (DVR), and HD on-demand content. This combination will allow cable service providers to grow their subscriber base, increase customer satisfaction, and boost existing revenue streams. Consumers will get a rich home entertainment experience with eye-popping HD picture clarity; the movie theater experience of surround sound; personalized recording with DVR control and convenience; and access to HD on-demand content. Please see your Scientific-Atlanta sales representative regarding product availability.

The Explorer 8000HD Entertainment Server will make it easy to maximize the screen image for non-HD channels. For a widescreen HDTV set, click "stretch" or "zoom" from the Quick Settings menu on the Explorer 8000HD server.

Cable Service Provider Benefits

- Build additional monthly revenue streams with new HD-DVR, video-on-demand (VOD), and picture-in-picture (PIP) services.
- Use VOD and DVR as complimentary services to offer more compelling content than satellite offerings.
- Reduce churn by providing more of the services that consumers really want.
- Derive greater profitability with the Explorer platform, which is scalable to support future applications development and continued growth.
- Reduce installation and service costs with the Explorer 8000HD server's consumer-friendly, self-install, Plug and Play operation.

Consumer Benefits

- Benefit from Dual-Tuner Functionality – You will be able to record one program while you are watching another program simultaneously. You will be able to record two programs at the same time that you play back a third.
- Control live TV – If the phone rings during your favorite live show, just press the Pause button on the AllTouch® 8400™ Remote Control. The show will stay paused for up to one hour. Press Play to resume the show whenever you are ready.
- Use Instant Replay whenever you want – If you missed the winning score, just press the Instant Replay button to see what you missed.

Consumer Benefits, Continued

- Pre-set the Explorer 8000HD server to record all episodes of a TV program for you – Simply select the program in the Interactive Program Guide and select the "Record All Episodes" option.
- Create your own personalized video library of favorite TV shows – Play back your shows at any time.
- Display two programs on-screen simultaneously – Using the PIP remote control button, view two live programs, or one live and one recorded program simultaneously, regardless of the brand of your TV.

Features

The 8000HD will offer the following features:

- Decodes all 18 ATSC digital video formats, including the 6 high-definition (HD) digital formats for HDTV.
- Outputs video to the HDTV display in four resolutions: 480i, 480P, 720P, or 1080i. These resolutions, or scan rates, allow consumers to select the scan rate best suited for their HDTV set.
- Decodes all standard-definition digital formats and all analog video services as well.
- Allows consumers to stretch and zoom the video picture to maximize its viewable area on the HDTV display.

To meet the demands of existing and future network configurations, the 8000HD will offer power, capacity, and compatibility. The Explorer 8000HD Home Entertainment Server will have a reverse-path DAVIC transmitter capable of 1.544 Mbps for two-way communications capability to support such applications as the Interactive Program Guide and VOD. The 40 MB of application and program memory, along with dual 166 MHz RISC microprocessors, will manage multiple program tasks and applications with speed and power.

Specifications

Feature	Description
DVR with 80 GB or 160 GB Hard Drive	The 160 GB model will allow up to 20 hours* of HD programs or up to 90 hours* of SD programs to be recorded and stored using DVR functions *(*The total program hours that can be stored depends upon the format and data rate of the programming source*.)
	Will give subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live HD programs using the remote control
Analog Component HDTV Outputs	Will provide YPbPr outputs for quick and easy connection to most HDTV sets
DAVIC Reverse Path Data Transmitter	Will allow IP-based, real-time, two-way communication between the Explorer 8000HD Home Entertainment Server and the cable service provider's headend
	Will support interactive services such as xOD (*anything*-On-Demand), VOD, and subscription VOD (SVOD)
MPEG-2 MP@ML Standard Definition Digital Video Decompression	Will allow decompression and presentation of audio and video
	Will deliver 640 x 480 video resolution
Dual Analog and Digital Service Tuners (True Picture-In-Picture)	Will allow both analog and MPEG-2 digital channels to be tuned and displayed
	Will allow two programs to be displayed simultaneously using the PIP function
Dual Analog Encoders	Will allow two analog SD programs to be recorded and displayed simultaneously
Dolby Digital® Audio and MPEG-1 Audio Support	Will support leading digital audio standards
PowerKEY®Conditional Access System	Will provide digital security using an RSA encryption algorithm that mathematically matches pairs of keys
	Will encrypt all recordings on an internal hard disk drive
	Will allow upgrades using a network download

Specifications, Continued

Feature	Description
PowerTV® Operating System with HTML Client Engine	Will offer a stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
Enhanced Graphics Engine	Will display up to 65,000 colors simultaneously
	Will enable high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video
Powerful 32-bit RISC Processors	Will feature two 166-MHz (332 MIPs total) processors to perform tasks and launch applications quickly
Over 64 MB Total Memory	Flash: 8 MB Applications DRAM: 32 MB Media DRAM: 32 MB MPEG encoding: 16 MB of DRAM NVM: 8 KB
64 and 256 ITU J.83 Annex B QAM Support	Will support open standards for QAM delivery and demodulation
Both Internal Security Microprocessor and Smart Card Slot	Will provide hardware-assisted conditional access options with capability to upgrade the security, if ever needed
Macrovision® Copy Protection Support (licensing fee required to activate)	Activation will allow cable service providers to add another layer of copy protection software, called Macrovision, that restricts unauthorized subscribers from making analog copies of digital transmissions, such as VOD and SVOD
BTSC/SAP Decoder	Will provide stereo sound on analog channels through the baseband left and right audio outputs
S/PDIF Coaxial Digital Audio Output	Will support coaxial interconnection with surround sound receivers and encodes analog audio
S/PDIF Optical Digital Audio Output	Will support optical interconnection with surround sound receivers and encodes analog audio
YPbPr and Audio Left/Right Cable Kit	Will provide connection from the HD analog video and audio outputs to the HDTV set
Provision for Name Branding	Will allow you to brand the Explorer 8000HD Home Entertainment Server with your company name and logo
Composite Audio/Video Inputs (will require a software enhancement download when available)	Will support interconnection to home consumer devices, such as VCRs, camcorders, or digital cameras for video and audio pass-through to the TV
VCR Composite Audio/Video Outputs (will require a software enhancement download when available)	Will offer a composite audio/video connection to a VCR for archiving content from the hard disk drive
Optional DVI 1.0 Digital HDTV Output with HDCP Copy Protection (will require a software enhancement download when available)	Optional DVI 1.0 port with HDCP (High-Bandwidth Digital Content Protection) will support digital connection to an HDTV set supporting the DVI interface
	HDCP will provide a copy protection interface between the 8000HD and the HDTV set
Optional Dual IEEE 1394 Digital Outputs with 5C Copy Protection (will require a software enhancement download when available)	Optional dual IEEE 1394 outputs with 5C copy protection will provide a 400-Mbps interconnection each to home consumer devices such as digital televisions (see part number 749970 in **Ordering Information**)
Universal Serial Bus (USB) Ports (will require a software enhancement download when available)	One standard, front panel USB port for easy-to-access connection with home consumer devices such as USB keyboards
	One optional back panel USB port for connecting additional USB devices

Ordering Information

Contact your Sales Representative for product availability in your area.

Part Number	Description
4004564	Explorer 8000HD Home Entertainment Server with 160GB Hard Drive and DVI
749970	Explorer 8000HD Home Entertainment Server with 160GB Hard Drive, DVI, and Dual IEEE 1394 Ports
4005536	Explorer 8000HD Home Entertainment Server with 80GB Hard Drive and DVI
4005534	Explorer 8000HD Home Entertainment Server with 80GB Hard Drive, DVI, and Dual IEEE 1394 Ports
4004878	DVR Software License (line item on Explorer 8000HD Purchase Order)
745684	AllTouch 8400 Remote Control
4005400	Scientific-Atlanta Resident Application (SARA) DVR Software Installation CD **(only order one CD for each headend)**

Specifications and product availability are subject to change without notice.
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