Explorer® 3250HD™
High-Definition Interactive Set-Top

Description

Scientific-Atlanta's Explorer® 3250HD™ High-Definition Interactive Set-Top merges high-definition video capability and broadband digital video services to deliver a broad range of entertainment, information, and communications services.

The 3250HD decodes all 18 ATSC digital video formats, including the 6 high-definition (HD) digital formats for HDTV. All standard-definition digital formats and all analog video services are decoded as well. This comprehensive level of decoding capability in one set-top box enables cable service providers to quickly scale HDTV video services for both analog and digital consumers.

The 3250HD can output 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. Consumers can stretch and zoom the video picture to maximize its viewable area on the HDTV display.

For added connectivity, the 3250HD offers optional loop-through that provides a set of component HDTV inputs, a composite video input, and both analog audio and optical digital audio inputs. A consumer with limited inputs on their HDTV can use the loop-through connectivity feature on the 3250HD to connect additional electronic devices.

Features

- 166 MIPS Processor
- Integrated DAVIC Cable Modem
- 8 MB Flash Memory, or 16 MB available as an option
- 16 MB Applications DRAM, or 32 MB available as an option
- 16 MB Media DRAM
- 4 KB NVM
- Analog Component HDTV Outputs
- Composite Audio/Video Outputs
- S-Video Output
- Digital Audio Outputs (RCA and Optical)
- Front Panel USB Port
- Ability to Process All Analog and Digital Services
- IR Port for VCR Commander™ Service

Explorer 3250HD High-Definition Interactive Set-Top

Description, continued

To meet the demands of existing and future network configurations, the 3250HD offers power, capacity, and compatibility. The integrated internal DAVIC cable modem allows the 3250HD to communicate instantly with the cable headend to promote a broad range of interactive entertainment, information, and communications services. Over 40 MB of application and program memory, along with the 166 MHz RISC microprocessor, manage multiple program tasks and applications with speed and power. The USB port offers fast interconnectivity to consumer peripherals.

Optional Features

- 16 MB Flash Memory
- 32 MB Applications DRAM
- DVI 1.0 Digital HDTV Output
- IEEE 1394 Digital Outputs
- Loop-Through Connections for Component HDTV, Composite Video, and Analog and Digital Audio
- IR Blaster Cable
- IR Extender Cable
- RF Bypass
- Universal AllTouch® Remote Control: AT8400, AT8450, *AT8550, AT2400, or AT2300

3250HD rear panel showing optional loop-through connections

3250HD rear panel showing optional IEEE 1394 digital outputs

Taping an HD broadcast to an analog VCR is seamless with the 3250HD. The set-top simultaneously displays the HD image and downconverts it to SD (standard definition) through the NTSC outputs.

The optional VCR Commander Service integrates the interactive TV program guide with the VCR so that consumers simply point-and-click to setup and record programs.
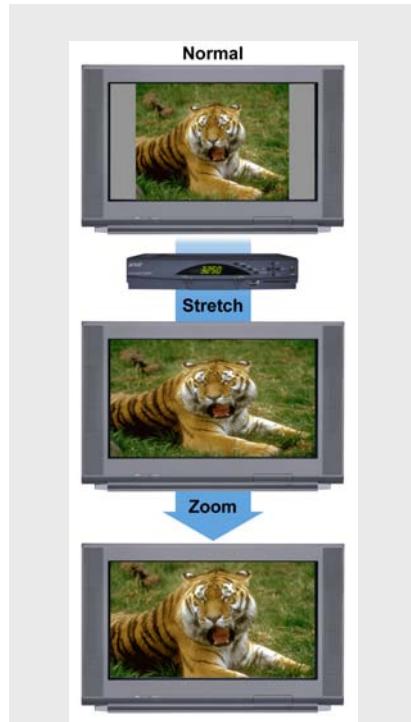
The 3250HD makes it easy to maximize the screen image for non-HD channels. For a widescreen HDTV set, simply click "stretch" and then "zoom" from the Quick Settings menu on the 3250HD set-top.
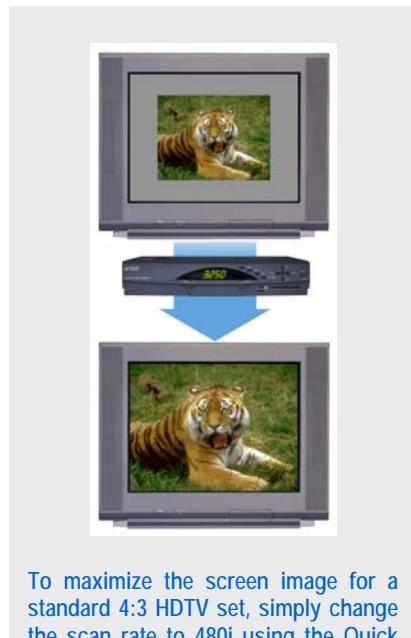
To maximize the screen image for a standard 4:3 HDTV set, simply change the scan rate to 480i using the Quick Settings menu on the 3250HD set-top.

Explorer 3250HD High-Definition Interactive Set-Top

Specifications

Feature	Benefits
Analog Component HDTV Outputs	Provides YPbPr outputs for quick and easy connection to most HDTV sets
Dual Audio Outputs with Composite Video Output	Allows simultaneous connection to the audio inputs on the HDTV as well as the audio and video inputs on a VCR
DAVIC Reverse Path Data Transmitter	Allows IP-based, real-time two-way communication between the 3250HD and the headend
	Enables cable service provider to offer two-way services such as Internet browsing, video-on-demand (VOD), subscription VOD (SVOD), e-mail, and real-time chat
MPEG-2 MP@HL Digital Video Decompression	Allows decompression and presentation of audio and video
	Delivers video resolutions up to 1920 x 1080
Dolby® Digital Audio and MPEG-1 Audio Support	Supports leading digital audio standards
PowerKEY® Conditional Access System	Provides digital security using an RSA encryption algorithm that mathematically matches pairs of keys
PowerTV® Operating System with HTML Client Engine	Offers stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
	Allows upgrades using a network download
Enhanced Graphics Engine	Displays up to 65,000 colors simultaneously
	Enables high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video
Automatic Scaling of MPEG-2 Video for IPG Window	Scales MPEG-2 video for optimal viewing in the IPG window regardless of whether the subscriber is watching an HD or SD channel on either a widescreen or standard 4:3 TV
Powerful 32-bit RISC Processors	Features a 166 MHz (166 MIPs) processor to perform tasks and applications quickly
Over 40 MB Memory	8 MB Flash, or 16 MB available as an option 16 MB Applications DRAM, or 32 MB available as an option 16 MB Media DRAM 4 KB NVM
64 and 256 ITU J.83 Annex B QAM Support	Supports open standards for QAM delivery and demodulation
Analog and Digital Service Tuner	Allows both analog and MPEG-2 digital channels to be tuned and displayed
DAVIC Compliant Integrated Cable Modem	Provides a high-speed data forward path to the 3250HD
Both Internal Security Microprocessor and Smart Card Slot	Provide hardware-assisted conditional access options with capability to upgrade the security, if ever needed
Macrovision® Copy Protection Support	Activation allows cable operators to add another layer of copy protection software, called Macrovision, that restricts subscribers from copying protected transmissions such as VOD and SVOD to the analog composite outputs

Specifications, continued

Feature	Benefits
Universal Serial Bus (USB) Interface	Front panel USB port allows easy interconnection with home consumer devices such as USB keyboards
BTSC/SAP Decoder	Provides stereo sound on analog channels through the baseband left and right outputs
S/PDIF Digital Audio Interface	Supports interconnection with surround sound receivers using coaxial and optical type connectors
Integrated VCR Commander Service	Automates the recording of selected video programs; requires IR Blaster Cable
Provision for Name Branding	Allows you to brand the 3250HD with your company name and logo
Optional DVI 1.0 Digital HDTV Output with Support for HDCP	Optional DVI 1.0 port with HDCP (High-Bandwidth Digital Content Protection) supports digital connection to an HDTV set supporting the DVI interface
	HDCP provides a copy protection interface between the 3250HD and HDTV set
Optional Dual IEEE 1394 Digital Outputs with DTCP Copy Protection	Optional dual IEEE 1394 outputs with DTCP (Digital Transmission Content Protection) provide a 400-Mbps digital interconnection to a 1394-equipped HDTV
	The 1394 ports provide a copy protection interface between the 3250HD and the connected consumer device
Optional Analog Component HDTV Inputs	Provides YPbPr inputs, composite video input, and digital and analog audio loop-through for quick and easy connection to a DVD player
Optional RF Bypass	Allows the video signal to internally bypass the 3250HD to an SD input on the HDTV set
Optional RGB Adapter	Converts the video from the YPbPr output into an RGB format with horizontal and vertical sync for HDTVs requiring the RGB input signal

Ordering Information

Contact your Sales Representative for product availability in your area.

Part Number	Description
4000768	Explorer 3250HD High-Definition Set-Top (8 MB Flash / 16 MB DRAM Memory) with Optional DVI 1.0 Digital HDTV Output
4001332	Explorer 3250HD High-Definition Set-Top (8 MB Flash / 16 MB DRAM Memory) with Optional DVI 1.0 Digital HDTV and Optional IEEE 1394 Digital Outputs
4004367	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV Output
4005726	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV and Optional IEEE 1394 Digital Outputs
4006584	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV Output and Analog Component Video and Audio Loop-Through Inputs

Ordering Information, continued

Description	Product Photo	Part Number
Optional IR Blaster Cable (8 ft)		735994
Optional IR Extender Cable		1001807 (12 ft) 4006725 (25 ft)
Optional RF Bypass		544345
Optional RGB Adapter, sold in packages of five (cables sold separately)		749790
RGB Adapter Cable with RCA-to-RCA Connectors (8 ft)		749976
RGB Adapter Cable with RCA-to-VGA Connectors (8 ft)		749978
RGB Adapter Cable with RCA-to-BNC Connectors (8 ft)		749977
Spare YPbPr and Audio Left/Right Cable Kit (10 ft)		1000944