



Description

Scientific-Atlanta's Explorer® 4200HD™ Home Gateway merges high-definition video capability and broadband digital video services to deliver a broad range of entertainment, information, and communications services.

The Explorer 4200HD Home Gateway decodes all 18 ATSC digital formats, including the 6 high-definition 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 operators to quickly scale HDTV video services for both analog and digital consumers.

The 4200HD 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 also stretch and zoom the video picture to maximize its viewable area on the HDTV display. (continued on page 2)

Features

- Integrated DOCSIS Cable Modem
- 328 MIPS with Dual CPUs
- 32 MB Applications DRAM
- Analog Component HDTV Outputs
- Composite Audio/Video Outputs
- S-Video Output
- Digital Audio Output
- Back Panel USB Port
- Ability to Process All Analog and Digital Services
- IR Port for VCR Commander™ Service



Description – CONTINUED

Taping an HD broadcast to an analog VCR is seamless with the 4200HD. The set-top simultaneously displays the HD image and downconverts it to SD (standard definition) through the NTSC outputs. Consumers simply output the HD content to their VCR and the 4200HD automatically handles the SD conversion for the VHS tape.

With its internal DOCSIS cable modem, the 4200HD provides a high-speed data path for boosting performance of interactive TV applications. The DOCSIS modem delivers significantly faster out-of-band (OOB) data for interactive applications than the DAVIC OOB path.

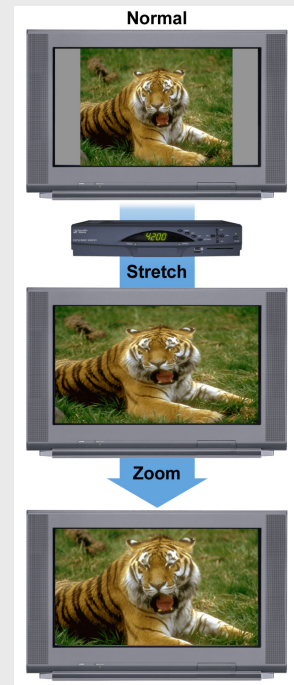
To meet the demands of existing and future network configurations, the 4200HD offers power, capacity, and compatibility. The combination of an integrated internal DOCSIS cable modem and the DAVIC OOB channel supports a broad range of entertainment, information, and communications services. The 56 MB of application and program memory, along with dual 164 MHz RISC microprocessors, manage multiple program tasks and applications with speed and power. The USB port offers fast interconnectivity to consumer peripherals. And the 4200HD is backward compatible with existing Scientific-Atlanta digital set-tops and headends.

Optional Features

- DVI 1.0 Digital HDTV Output
- IEEE 1394 Digital Outputs
- Additional USB Port, front panel
- IR Blaster Cable
- RF Bypass
- Universal Remote Control: AT8400, AT2400, or AT2300



4200HD rear panel showing DVI and IEEE 1394 optional outputs




The 4200HD 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 4200HD 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 4200HD 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 |
| Reverse Path Data Transmitter for DOCSIS and DAVIC | Allows IP-based, real-time two-way communication between the 4200HD and the headend Enables MSO to offer two-way services such as Internet browsing, 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 |
| AC-3® 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 |  <p>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</p> |
| Powerful 32-bit RISC Processors | Features two 164 MHz (328 MIPS total) processors to perform tasks and applications quickly |
| Over 56 MB Memory | 8 MB Flash 32 MB Applications DRAM 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 |
| DOCSIS Compliant Integrated Cable Modem | Provides a high-speed data forward path to the 4200HD |
| 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 (licensing fee required to activate) | Activation allows cable operators to add another layer of copy protection software, called Macrovision, that restricts unauthorized subscribers from copying digital transmissions such as VOD and SVOD |
| Universal Serial Bus (USB) Interfaces | Optional front panel USB port and the standard back panel USB port allow 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 |

(continued on page 4)

Specifications – CONTINUED

| Feature | Benefits |
|---|--|
| S/PDIF Digital Audio Interface | Supports interconnection with surround sound receivers |
| Integrated VCR Commander Service | Automates the recording of selected video programs; requires IR Blaster Cable |
| Provision for Name Branding | Allows you to brand the 4200HD with your company name and logo |
| Optional DVI 1.0 Digital HDTV Output with HDCP Copy Protection (will require optional software enhancement via software download when available) | 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 4200HD and HDTV set |
| Optional Dual IEEE 1394 Digital Outputs with 5C Copy Protection (will require optional software enhancement via software download when available) | Optional dual IEEE 1394 outputs with 5C copy protection provide a 400-Mbps interconnection each to home consumer devices such as digital VCR players 5C copy protection provides a copy protection interface between the 4200HD and the connected consumer device |
| Optional RF Bypass | Allows the video signal to internally bypass the Home Gateway 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

| Description | Product Photo | Part Number |
|--|---|-------------|
| Explorer 4200HD Home Gateway |  | 4001368 |
| Explorer 4200HD Home Gateway with Optional DVI 1.0 Digital HDTV Output |  | 4002766 |
| Explorer 4200HD Home Gateway with Optional DVI 1.0 Digital HDTV and Optional IEEE 1394 Digital Outputs |  | 4003417 |

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Ordering Information – CONTINUED

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



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