

### **Explorer® 8300DVB™ Set-Top with Modem** *featuring Euro-DOCSIS, High Definition Capability, and DVR*



#### **Description**

The Explorer® 8300DVB™ Set-Top High-Definition, Digital Video Recorder (HD DVR) offers a cost-effective solution for providing subscribers with a gateway to multiple services through a single consumer electronics device. In addition to high-quality digital audio and video services and a three-tuner DVR, cable service providers can also provide high-speed data services through the internal Euro-DOCSIS (European Data Over Cable Service Interface Specification) cable modem.

The 8300DVB is fully capable of supporting real-time, two-way interactive applications—such as impulse pay-per-view (IPPV), network based games, enhanced TV, e-mail, Internet browsing, chat, voting/polling, T-commerce, video-on-demand (VOD) and subscription VOD (SVOD)—to the television.

The 8300DVB includes dual 250 MIP, 32-bit RISC processors that deliver industry-leading processing power while minimizing power consumption. This high-performing core provides a solid foundation for today's iTV applications and provides the service provider with a platform for the future.

The 8300DVB features support for key industry standards within MPEG, ISO, DVB, PAL, and Euro-DOCSIS. It also supports a choice of renewable conditional access systems, as well as middleware systems for maximum flexibility.



# Explorer<sup>®</sup> 8300DVB™ Set-Top with Modem featuring Euro-DOCSIS, High Definition Capability, and DVR



The following graphic provides a view of the rear panel of the 8300DVB.



## Specifications

The following table describes the ports and connections on the rear panel, as well as other features of the 8300DVB.

Features	Descriptions
DVR with 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 Gives subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live programs using the remote control <i>*The total program hours that can be stored depends upon the format and data rate of the programming source.</i>
Four (4) Digital Tuners	Three video and one data tuner: <ul style="list-style-type: none"> <li>Allows both analog and MPEG-2 digital channels to be tuned and displayed</li> <li>Allows the capability of recording three programs and playing back a recorded program from the hard disk drive simultaneously</li> <li>One tuner dedicated for data</li> </ul>
Internal DOCSIS <sup>®</sup> /Euro-DOCSIS Cable Modem	Provides “always on” return path for the 8300DVB Provides high-speed data service for home networks Enables two-way iTV services like e-mail, Internet browsing, VOD and SVOD
Dual 250 MIPS, 32-bit RISC Processors	Features two 250 MHz (500 MIPS total) processors to perform tasks and applications quickly
Full Graphics Engine	Displays up to 65,000 colours simultaneously with Alpha blending and bit-Blitter (BLT) capability Enables high-resolution graphics up to 720 x 576 pixels while simultaneously scaling MPEG-2 video Includes independent graphics, video, and background planes Enables more efficient use of memory, bus, and CPU resources
64 and 256 ITU J.83 Annex A QAM Support	Supports open standards for QAM delivery and demodulation Tunes MPEG-2 digital channels while simultaneously receiving high-speed data
Two HD and SD Video Decoders	Enables features such as WatchTV plus archiving
Dual Audio Decoders	Provides the ability to decode two MPEG audio programs simultaneously
Optical Digital Audio Output	Supports two-channel MPEG-1 Layer 1, Layer 2, and Layer 3 audio Supports two-channel MPEG-2 Dolby <sup>®</sup> Digital (AC-3) audio Supports 5.1 Dolby Digital AC-3 audio

# Explorer<sup>®</sup> 8300DVB<sup>™</sup> Set-Top with Modem featuring Euro-DOCSIS, High Definition Capability, and DVR



Features	Descriptions
Audio/Video Outputs	Component YPrPb Stereo audio left and right plus video RCA PAL UHF modulated RF output: configurable output from 470 MHz to 860 MHz (channels 21-69); supports IR input for IR Extender devices (for example, Magic Eye) HDMI <sup>™</sup> with HDCP (high-bandwidth digital content protection) support Dual SCART providing SCART connection to TVs and VCRs
Analog Component HDTV Outputs	Provides YPbPr outputs for quick and easy connection to most HDTVs
Analog Component HDTV Outputs	Provides YPbPr outputs for quick and easy connection to most HDTVs
MPEG-2 MP@HL and MPEG-2 MP@ML HD Digital Video Decompression	Allows decompression and presentation of audio and video Delivers the following video resolutions: 1920 x 1080i 720 x 576i 1280 x 720p
Middleware Applications Software	Enables use of ITV applications written for HTML/Javascript, OpenTV Core 1.1, Liberate DTV, MHP or PowerTV <sup>®</sup> RTOS
Macrovision <sup>®</sup> Copy Protection (licensing fee required to activate)	Activation allows 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
DVB-SI Conditional Access (CA)	Supports DVB common scrambling algorithm Supports choice of renewable CA systems such as NDS, Viaccess, Nagravision, and PowerKEY <sup>®</sup> encryption
Rear Panel ISO 7816 Smart Card Reader	Enables expanded/dual conditional access features, and use of third-party systems such as Nagravision Enables user-installable system security upgrades Provides hardware-assisted conditional access options with capability to upgrade the security, if needed
Universal Serial Bus (USB) 1.1 Port	Includes rear panel USB port that enables connection to home consumer devices such as USB keyboards or printers
Ethernet RJ-45 10BaseT Port	Allows easy interconnection with consumer devices such as PCs and wireless transceivers
IR Blaster and Serial I/O Output	Provides serial I/O port for infrared control of external devices
Terrestrial Aerial Combiner	Enables combination of terrestrial aerial signals and digital cable channels on a single feed to the TV
External SATA Connector	External Serial ATA (SATA) connector provides a high-bandwidth connection to an external SATA hard disk drive for expanded storage space for recorded programs
PowerTV Operating System	Provides proven multimedia operating system with open application programmer interface (API) Supports native and third-party middleware applications Provides SNMP Agent and MIBs for network monitoring
Optional Dual SCART	Allows SCART connections to TVs and VCRs

# Explorer<sup>®</sup> 8300DVB<sup>™</sup> Set-Top with Modem featuring Euro-DOCSIS, High Definition Capability, and DVR



Features	Descriptions
UHF Modulated RF Output	Provides a configurable output from 470 MHz to 860 MHz (UHF channels)
Over 112 MB Total Memory	Flash: 512 KB, 8 MB, or 16 MB Applications DRAM: 64 MB Media DRAM: 32 MB NVM: 128 KB
Optional Application Memory	Applications DRAM 128 MB
Dimensions (W x D x H)	400 mm x 285 mm x 83 mm
Weight	3.7 kg



Scientific Atlanta, the Scientific Atlanta logo, Explorer, PowerKEY, and PowerTV are registered trademarks of Scientific-Atlanta, Inc.

8300DVB is a trademark of Scientific-Atlanta, Inc.

DOCSIS is a registered trademark of Cable Television Laboratories, Inc.

Dolby is a registered trademark of Dolby Laboratories.

HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, Inc.

Macrovision is a registered trademark of Macrovision Corp.

Specifications and product availability are subject to change without notice.

© 2006 Scientific-Atlanta, Inc. All rights reserved.

Scientific Atlanta, A Cisco Company

1-800-722-2009 or 770-236-6900

[www.scientificatlanta.com](http://www.scientificatlanta.com)

Part Number 7004921 Rev A

March 2006