

Subscriber Networks

Explorer[®] 8300C[™] and 8300HDC[™] DVR with M-Card[™] Interface

Description

The Explorer[®] 8300C[™] Digital Video Recorder (DVR) will be an addition to the 8300 family. This dual-tuner DVR will have a Multi-Stream CableCARD[™] (M-Card[™]) interface to operate as a separable security set-top.

Additionally, the Explorer 8300HDC[™] DVR with an M-CARD interface will provide high-definition tuning, recording, and connection features.

These set-tops with the M-Card interface will help service providers meet the Federal Communications Commission's July 1, 2007, separable security mandate.



Features

Separable Security

- *M-Card Interface* will use a Multi-Stream CableCARD module to provide separable security in set-tops

OpenCable Network Support

- *Axiom[™] DVR Middleware* will support OCAP[™] Applications such as Service Navigators, Games, and many other future applications (optional software)
- *DSG (DOCSIS[®] Set-top Gateway)* will provide a powerful standard transport mechanism for command and control signaling between the set-top and service provider network (optional software)

Conventional Scientific Atlanta Network Support

- *SARA DVR Software* on a separable security set-top will support native navigator and user interface in a non-OCAP service provider network environment (optional software required)
- *DAVIC Receiver/Transmitter* will allow IP-based, real-time, two-way communication between the set-top and the service provider's network for services such as video-on-demand

DVR, HD, and SD Features

- *Dual-tuner DVR* will allow one program to be recorded while watching or recording another (software controlled)
- *Picture-in-Picture (PIP)* will allow viewing two separate video sources simultaneously (software controlled)
- *SD (MPEG-2) Tuning* will tune and decode standard-definition (SD) programs in MPEG-2 format
- *HD (MPEG-2) Tuning* will tune and decode high-definition (HD) programs in MPEG-2 format (8300HDC)
- *80 GB Internal Hard Drive* will store up to 50 hours of SD programs (8300C)
- *160 GB Internal Hard Drive* will store up to 90 hours of SD or 20 hours of HD programs (8300HDC)

Explorer 8300C and 8300HDC DVR with M-Card Interface

Front Panel



Note: Image is of the 8300HDC front panel. Image may vary from actual product and specification.

| Front Panel—Standard | |
|----------------------|---|
| Connections | Video-in, L/R Audio-in, USB 1.1 Host |
| Controls | IR Receiver, 10 Buttons: Power, List, Exit, Info, Guide, Vol+, Vol-, Ch+, Ch-, Select |
| Indicators | Power, Four 7-segment digits, Message, Record, HDTV, Auto, 1080i, 720p, 480p, 480i |
| Color | Silver paint, Black Lens, Black Buttons, Dark Grey Button Text |
| Branding | Scientific Atlanta, Model Number, Provision for Service Provider Branding |

Back Panel



Note: Image is of the 8300HDC back panel. Image may vary from actual product and specification.

| Rear Panel—Standard | |
|--------------------------------|--|
| Connections—In | Cable In |
| Connections—Out | (TV) Cable Out, Video 1, L/R Audio 1, Video 2, L/R Audio 2, Coax Digital Audio, S-Video, IR, eSATA |
| Output Resolutions | 720 x 480i 60 Hz |
| Separable Security | Multi-Stream CableCARD (M-Card) interface |
| Power Input | Polarized 2-prong modular cord plug, 115 VAC, 60 Hz |
| Power Output | Polarized 2-prong outlet, at input line voltage, software controlled |
| Labels | Serial Number, RF MAC Address, eCM MAC Address, M-Card Serial Number (if optional M-Card module is included), M-Card MAC Address (if optional M-Card module is included) |
| Rear Panel—Included on 8300HDC | |
| Connections—Out | YPbPr (or Video 1), Optical Digital Audio, HDMI™, Dual IEEE-1394 6-Pin |
| Output Resolutions | 1920 x 1080i 60 Hz, 1280 x 720p 60 Hz, 720 x 480p 60 Hz |

Explorer 8300C and 8300HDC DVR with M-Card Interface Specifications

| Tuning and Decoding—Standard | |
|---|--|
| DVR | Dual Tuning, Dual Record, Dual Playback, Pause, Rewind, Fast-Forward, Record one while watching another, controlled by software |
| Tuning | Dual Analog, Dual QAM 64 or 256, Inband 54 MHz to 860 MHz, Out-of-band 70 MHz to 130 MHz, A/V in display, PIP |
| Video Decoders | Dual MPEG-2 up to MP@ML (up to 720 x 480i 60 Hz), Video Scaling |
| Audio Decoders | Dual Dolby® Digital up to 5.1, Dual MPEG, Dual BTSC/SAP |
| Conditional Access | Separable security through the Multi-stream CableCARD interface |
| Encoders | Dual Video (from Analog), Audio BTSC for TV Cable (RF) Output |
| Graphics Engine | 65,000 colors, 640x480 resolution, simultaneous scale MPEG-2 video |
| DAVIC | QPSK FDC 1.54 Mbps, QPSK RDC at 1.54 Mbps |
| DOCSIS | OOB and Interaction via DOCSIS 1.0, DOCSIS Set-Top Gateway, Baseline Privacy Interface, requires software option |
| Tuning and Decoding—Included on 8300HDC | |
| Video Decoders | Dual MPEG-2 up to MP@HL (includes 1920 x 1080i 60 Hz, 1920 x 1080p 30 Hz, 1920 x 1080p 24 Hz, 1280 x 720p 60 Hz, and 720 x 480p 60 Hz) |
| Tuning and Decoding—Optional | |
| DAVIC | Dual QPSK |

| Memory/Storage | 8300C DVR Model Options | | 8300HDC DVR Model Options | |
|----------------|-------------------------|---------|---------------------------|---------|
| CPU/Apps RAM | 64 MB | 128 MB* | 64 MB | 128 MB* |
| Video Graphics | 16 MB | 16 MB | 32 MB | 32 MB |
| Video Encoder | 16 MB | 16 MB | 16 MB | 16 MB |
| CPU Flash | 2 MB | 2 MB | 2 MB | 2 MB |
| CPU NVM | 16 kB | 16 kB | 16 kB | 16 kB |
| Hard Drive | 80 GB | 80 GB | 160 GB | 160 GB |

*Axiom DVR Middleware for OCAP support is recommended only for the 8300C/HDC models that have 128 MB RAM.

| Processors | |
|-----------------|---|
| Application/CPU | Two 250 MHz 32-bit RISC Processors (500 MIPs total) |

| Dimensions | |
|-----------------|--|
| Product (WxDxH) | 15.6 in x 11.2 in. x 3.25 in. (39.7 cm x 28.5 cm x 8.3 cm) |
| Product Weight | 8.3 lbs (3.8 kg) |
| Carton (WxDxH) | 18.0 in. x 14.0 in. x 6.12 in. (45.8 cm x 35.6 cm x 15.6 cm) |
| Total Weight | 11.6 lbs (5.3 kg) |

| Operating Conditions | |
|----------------------|--|
| Placement | Locate with at least 2 inches of open space above and on each side |
| Room Temperature | 32°F to 105°F (0°C to 40°C) during operation |
| Power Dissipation | 40 W maximum |

Explorer 8300C and 8300HDC DVR with M-Card Interface

Accessories

| Accessories—Standard | | |
|-----------------------------------|---|-------------|
| In Carton | Power Cord, Connection Guide | |
| Accessories—Included with 8300HDC | | |
| In Carton | YPbPr Component Video and L/R Audio Cable | |
| Accessories—Optional | | Part Number |
| Sold Separately | Axiom DVR Middleware License* | 4014594 |
| | SARA DVR Software License | 752351 |
| | Multi-Stream CableCARD PMK802 | 4014733 |
| | 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 |

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Ordering Information

| Model | Description | Part Number Set-Top Only | Part Number Set-Top with PowerKEY® M-Card Module |
|-------------|---|--------------------------|--|
| 8300C DVR | Explorer 8300C, SD DVR with 80GB HDD, 64 MB RAM, DOCSIS, and M-Card Interface | 4015524 | 4016231 |
| 8300C DVR | Explorer 8300C, SD DVR with 80 GB HDD, 128 MB RAM, DOCSIS, and M-Card Interface | 4015193 | 4016230 |
| 8300C DVR | Explorer 8300C, SD DVR with 80 GB HDD, 128 MB RAM, DOCSIS, Dual QPSK, and M-Card Interface | 4017634 | N/A |
| 8300HDC DVR | Explorer 8300HDC, HD DVR with 160 GB HDD, 64MB RAM, HD Outputs, DOCSIS, and M-Card Interface | 4015521 | 4016229 |
| 8300HDC DVR | Explorer 8300HDC, HD DVR with 160 GB HDD, 128 MB RAM, HD Outputs, DOCSIS, and M-Card Interface | 4012971 | 4016228 |
| 8300HDC DVR | Explorer 8300HDC, HD DVR with 160 GB HDD, 128 MB RAM, HD Outputs, DOCSIS, Dual QPSK, and M-Card Interface | 4017635 | N/A |

Note: DOCSIS models have both DAVIC and DOCSIS out-of-band capability; DOCSIS-capable software is required for DOCSIS operation.

Explorer 8300C and 8300HDC DVR with M-Card Interface



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