

FEATURES

Supports Standard-Definition (SD), Enhanced-Definition (ED), and High-Definition inputs, creating a Standard Definition only output

Dolby® Digital and stereo audio output

Digital Video Recording (DVR) services

Supports Video-on-Demand (VoD) programming

SATA connector for additional DVR capacity with an external hard drive

Built-in DOCSIS® cable modem for high-speed connections

Full range of industry-standard outputs for video, audio, and data applications

Unswitched accessory AC outlet

On-screen diagnostics

Full feature access from front panel

Support for Macrovision® copy protection

DES-based encryption

DigiCipher®II access control

Out-of-band (OOB) data receiver

Support for pass-through of vertical blanking interval (VBI) data services (closed caption, V-chip, and CGMS-A)

Picture-in-Picture-capable

BENEFITS

Maintain a personal library of recorded programming

Records hours of SD, ED and HD programming. (Please note: HD recorded programming will be stored on the hard drive as HD, but output as SD.)

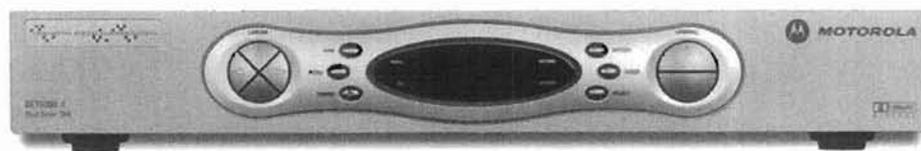
Pause and shift live TV programming

Schedule multiple recordings through the Interactive Program Guide (IPG)

- Watch two programs and switch between them
- Record one program while watching another
- Record two programs at the same time
- Watch a recorded program while recording two other programs

DCT3080

All-Digital Dual-Tuner DVR Standard-Definition Set-Top



The Motorola DCT3080 all-digital set-top combines the extraordinary features of digital cable with dual-tuner, all-digital video recording (DVR) for watch-and-record capability. The DCT3080 supports standard definition output only, and it does not support tuning analog channels on the cable plant. This all digital DVR SD set-top rounds out Motorola's all-digital portfolio by meeting a service provider's All-Digital Simulcast (ADS) requirements.

The DCT3080 all-digital set-top offers advanced capabilities, including a high-end, high-performance microprocessor, expanded memory, and enhanced graphics. Being an all-digital set-top, it provides service providers with a quick and cost-effective way of realizing the benefits of an all-digital network for homes that do not require a high-definition format.

DCT3080 benefits include increased bandwidth for VOD content, on-demand information and entertainment services, as well as reduction in theft of video services.

TECHNICAL SPECIFICATIONS

DOCSIS* 1.0/1.1/2.0-CAPABLE INTEGRATED CABLE MODEM

RF INPUT FREQUENCY

(VIDEO AND AUDIO) 54 to 864 MHz

AUDIO/VIDEO OUTPUTS

S-video, composite video, remodulated RF (optional), left/right baseband, optical SPDIF, coaxial SPDIF

DATA CONNECTIONS

USB 2.0 (rear panel), Ethernet 10/100Base-T, SATA interface

OOB MODULATION

QPSK

Frequency

Agile receiver 70 to 130 MHz

Bandwidth

2.0 MHz maximum

Level

-15 to +15 dBmV

DIGITAL INPUT LEVEL

64 QAM

-15 to +15 dBmV

256 QAM

-12 to +15 dBmV

PROCESSOR/MEMORY

16 MB Flash

128 MB DRAM standard unified

MIPS, RISC-based processor

VIDEO RESOLUTION (SD OUTPUTS)

4:3 up to 720 x 480; up to 32-bit color, 2D/3D support and scalable video-in-graphics

OPERATING REQUIREMENTS

Operating temperature

15 °C to 42 °C (59 °F to 108 °F)

Operating humidity

5% to 90% (non-condensing)

POWER SUPPLY

AC voltage

105 – 125 V 60 Hz

Power dissipation

30 to 35 W AC, depending on active features

Accessory Outlet

Unswitched 4 A MAX, 500 W MAX, 105 – 125V 60Hz

REGULATORY (US AND CANADA)

FCC, IC, UL, and C-UL

GENERAL SPECIFICATIONS

Size

17.0 in. (43.2cm) W by 11.0 in. (27.9cm) H by 2.75 in. (7cm) D

Weight

8.8 lbs. (4.0 kg)

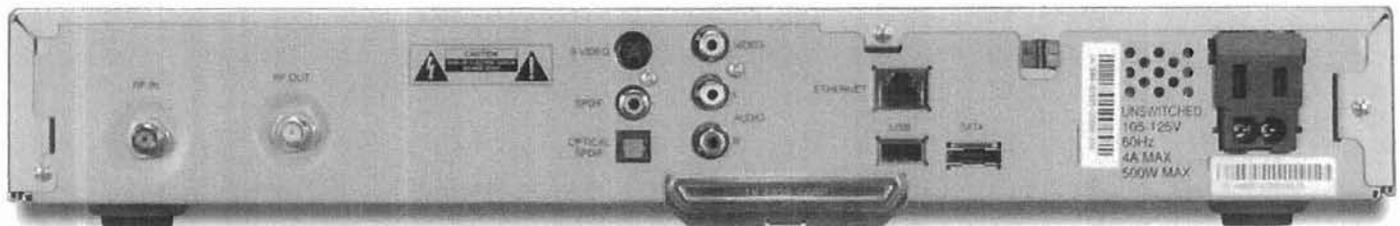
Accessories

DRC800 Universal Remote Control (sold separately)

Hard disk drive

80 GB

Certain features may not be activated by your service provider, and/or their network settings may limit the feature's functionality. Additionally, certain features may require a subscription. Contact your service provider for details. All features, functionality, and other product specifications are subject to change without notice or obligation.



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KEY FEATURES

Supports **standard-definition (SDTV), enhanced-definition (EDTV), and high-definition (HDTV) television**

Out-of-band (OOB) **data receiver**

Integrated DOCSIS-compliant 2.0 cable modem

IR Blaster port

HD Picture-in-Picture **capable**

On-screen diagnostics

Dolby® Digital, Pro Logic, and stereo audio

Digital Video Recording (DVR)

Video On Demand (VOD) programming

Macrovision copy protection

DES-based encryption

DigiCipher II **access control**

Pass-through of VBI data services (closed caption, V-chip, and CGMS-A)

Full range of industry-standard connectors for video, audio, and data applications:

- USB 2.0
- HDMI digital audio/video interface (replaces DVI)
- SATA connector (provides additional DVR capacity with an external hard drive)
- IEEE 1394

BENEFITS

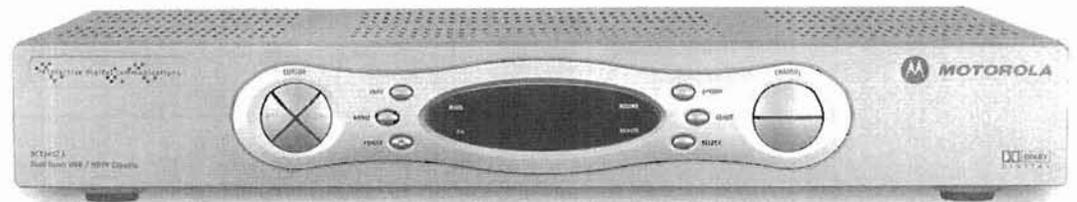
Pause and time-shift **live TV programming**

Record hours of SDTV and HDTV programming

Maintain a **personal library** of recorded SDTV and HDTV programming accessed through the IPG

Watch what you want, when you want:

- Schedule multiple recordings through the IPG
- Watch two programs at once and easily switch **between** them
- Record one program while watching another
- Record two programs **at the same time**
- Watch a recorded program while recording **two** others



The Motorola DCT3400 Series all-digital set-tops combine the extraordinary features of digital cable—the seemingly endless programming options, interactive program guides (IPG), Video on Demand (VOD), and commercial-free CD-quality music—with dual-tuner all-digital video recording (DVR) for watch-and-record capability, as well as the incredible picture quality of high-definition television (HDTV).

The DCT3400 Series all-digital set-tops offer advanced capabilities, including a high-end, high-performance microprocessor, expanded memory, enhanced graphics, and a full range of audio and visual inputs and outputs, offering service providers a quick and cost-effective way of realizing the benefits of an all-digital network. Benefits include increased bandwidth for HD and VOD content, on-demand information and entertainment services, and content encryption to reduce theft of video services.

The DCT3400 Series set-tops are designed for use as an all-digital platform. They do not support tuning analog channels on the cable plant.

DCT3400 Series

All-Digital Dual-Tuner DVR High-Definition Set-Tops

Satisfy the needs of today and tomorrow with an integrated HDTV set-top

The Motorola DCT5100 empowers operators to meet subscribers' high-definition technology needs both today and tomorrow — with one integrated High-Definition (HD) set-top. With its triple-tuner architecture for 'watch, talk, 'n' surf' capabilities, Motorola's DCT5100 is the next generation in set-tops. It fully supports the decode and processing of HDTV content without requiring a digital sidecar unit. It also features an integrated high-speed DOCSIS cable modem, high-performance processor, 3-D graphics, and is fully scalable to run the advanced, interactive applications and middleware of tomorrow.

Applications such as games,

home connectivity,

streaming media

and t-commerce

can be enabled

via a simple

software download

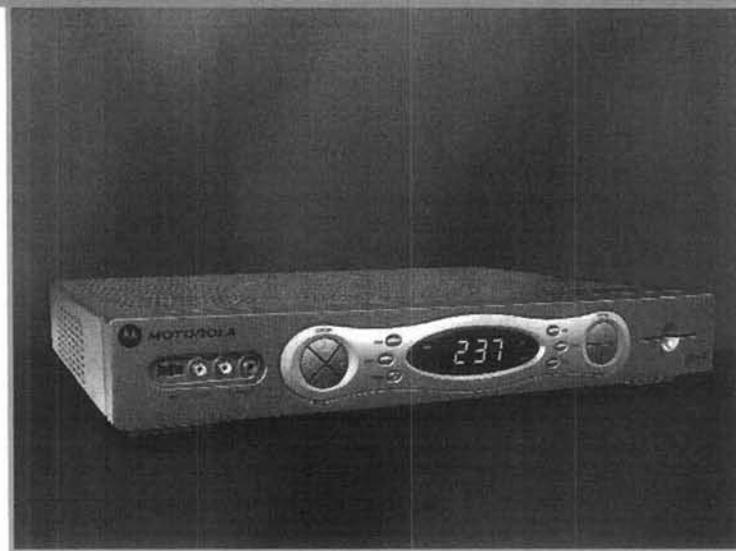
to this enhanced hardware

platform. Motorola's DCT5100

features a robust CPU and expanded memory

footprint, and a platform that supports future

IP-and video-based interactivity.



► Highlights

- Integrated High Definition (HD) decode capabilities
- Advanced convergence platform for video, audio and high-speed data services
- Built-in DOCSIS cable modem for high-speed interactivity
- Powerful, high-end microprocessor and graphics hardware
- Large memory footprint, expandable to 160 MB to run the most advanced operating platforms
- Open architecture supports a variety of downloadable third-party software platforms and applications
- Full array of audio, video and data interfaces
- Enables e-commerce, t-commerce, streaming media, PPV, IPPV, VOD, Internet browsing, e-mail, telephony, home networking and much more



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intelligence everywhere™

MODEL DCT5100 SPECIFICATIONS

► Standard Features

- MPEG-2 digital video processor
- Integrated High Definition (HD) decoder with YP_BP_R component output
- ATSC standard Dolby® (AC-3) audio processor
- ITU standard 64/256 QAM/FEC/enhanced adaptive equalizer
- DOCSIS 1.0/1.1-capable integrated cable modem
- Two 54 – 860 MHz tuners
- Frequency agile 2.048 Mbps out-of-band data receiver
- 300+ MIPS, RISC-based microprocessor
- 32-bit, 2-D/3-D graphics
- Analog/digital video scaling (Picture in Graphics)
- 16 MB Flash, 64 MB DRAM standard unified memory
- Clear analog channel processor with BTSC decoder
- DES-based encryption/DCII access control
- PCM, AC-3, Dolby 5.1 Prologic Digital audio capability
- IDE hard-drive controller interface
- Digital diagnostics
- Macrovision copy protection
- Full-feature access from front panel
- Switched accessory outlet

► Standard Interfaces

- RF and baseband output (video, L/R audio) ports
- Three USB connectors (one on front panel)
- 10/100Base-T Ethernet port (RJ-45 connector)
- Smart Card interface connector (e-commerce)
- YP_BP_R component output
- Front and rear panel L/R audio and video inputs
- S-video output
- Optical and electrical SPDIF/Dolby Digital connectors
- TVPASS renewable security connector
- IR Blaster port
- Audio loop through connectivity
- 4 digit, 7 segment LED display with IR receiver for remote and/or keyboard

► Optional Features

- 1394 Firewire digital interface (dual connector interface)
- DVI connector
- Expansion DRAM (up to 128 MB)
- Expansion FLASH (up to 32 MB)
- HPNA interface
- RF Bypass or A/B switch

► Accessories

- Universal remote (DRC400)
- Keyboard



DCT6200 SERIES

Advanced High-Definition Set-tops



The new Motorola DCT6200 series allows cable operators to deliver a powerful combination of interactive and entertainment services, such as personal video recording (PVR), high-definition television (HDTV), and other processing intensive applications.

As the next generation of Motorola's popular DCT5100 platform, the DCT6200 was enhanced with an 800 MIPS internal processor - an upgrade of over 150 percent. Additionally, the Motorola DCT6200 includes an "Entertainment Package" that enables a direct digital connection to consumer audio and video devices through 1394-DTV and DVI interfaces.

The DCT6200's expanded memory footprint, high-performance processor, and 3-D graphics are designed to run advanced, interactive applications including games, home connectivity, streaming media, t-commerce, and middleware. To support future IP and video-based interactivity, the DCT6200 series includes an integrated, high-speed DOCSIS cable modem.

In addition to the more advanced features, the DCT6200 offers a range of standard digital and analog interfaces

The DCT6200 series combines high-definition television with powerful interactive and entertainment services.

that facilitate consumer interaction in multiple DTV and IP interface configurations. It also includes an MPEG encoder, making the set-top PVR-capable with the addition of an external 1394 hard disk drive. These enhancements provide an even more compelling, easy-to-use, HDTV and PVR experience for the cable customer.

DCT6208

The Motorola DCT6208 offers time-conscious customers on-demand viewing control combined with HDTV support. Motorola's DCT6208 comes fully equipped with an integrated 80 GB hard-drive for hours of PVR functionality including the ability to record high-definition programs. In addition to the built-in hard drive storage capacity, it features a 1394 Firewire digital interface to enable external hard-drive expansion for increased storage or connection to future networked video devices.



DESCRIPTION

- Advanced digital set-top terminal that supports HDTV and Dolby 5.1 services
- Digital decode of HD video / audio content
- Robust CPU (800 MIPS), memory footprint, and 3D graphics to run electronic program guide (EPG), video-on-demand (VOD), advanced applications, and middleware
- Built in DOCSIS modem for high speed interactivity
- Full range of interfaces including YP_BP_R, DVI, 1394, USB, Ethernet, SPDIF, and Smartcard.
- Internal 80 GB hard drive with DCT6208

FEATURES

Standard Features

- MPEG-2 digital video processor
- Integrated high-definition decoder with YP_BP_R component output
- DVI and dual 1394 (DTV) digital connectors
- Built-in MPEG analog encoder
- PCM, AC-3, Dolby 5.1 Prologic Digital audio capability
- ITU standard 64/256 QAM/FEC/enhanced adaptive equalizer
- DOCSIS 1.0 / 1.1 capable integrated cable modem
- Two 54-860 MHz tuners
- Frequency agile 2.048 Mbps out-of-band data receiver
- 800 MIPS, RISC-based microprocessor
- 32 bit, 2-D / 3-D graphics
- Analog/digital video scaling (Picture in Graphics)
- 16 MB Flash, 64 MB DRAM standard unified memory
- Clear analog channel processor with BTSC decoder
- DES-based encryption/DCI access control
- Digital diagnostics
- Macrovision copy protection
- Full feature access from front panel

Optional Features

- A/B switch
- RF Bypass
- Expansion DRAM (up to 128 MB via field upgrade)
- Expansion FLASH (up to 32 MB, factory installed)
- Universal remote (DRC450)

Standard Interfaces

- YP_BP_R component output
- DVI and 1394 (DTV) digital interfaces
- Optical and electrical SPDIF / Dolby Digital connectors
- S-Video output
- RF and baseband output (Video, L/R Audio) ports
- Front and rear panel L/R audio and video inputs
- Three USB connectors (one on front panel)
- 10/100 Base-T Ethernet port (RJ45 Connector)
- Smartcard interface connector (e-commerce)
- TVPASS™ renewable security connector
- IR blaster port
- 4 digit, 7 segment LED display with IR receiver for remote or/and keyboard
- Switched Accessory Outlet

General Specifications

Dimensions	17.13 W x 12.75 H x 2.75 D
Weight	9.5 lbs. (62D0) 11 lbs. (62D8)

Specifications are subject to change without notice

MGBI



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DCT6400 Series

Dual Tuner DVR High-Definition Set-tops



The Motorola DCT6400 Series set-top combines the extraordinary features of digital cable – the seemingly endless programming options, interactive program guides (IPG), Video on Demand (VOD), and commercial-free, CD quality music – with dual tuner digital video recording (DVR) and the incredible picture quality and sound of your high-definition television (HDTV). The DCT6400 Series set-top offers advanced capabilities including a high-end microprocessor, expanded memory, enhanced graphics, and a full range of audio/visual inputs/outputs.

The DCT6400 Series set-top includes a direct digital connection to consumer audio and video devices through IEEE 1394-DTV and DVI interfaces. The DCT6412 set-top is fully equipped with an integrated 120 GB hard drive for hours of DVR functionality, including the ability to:

- Record hours of standard digital TV and high-definition TV content
- Maintain a personal library of recorded programming, accessed using the interactive program guide (IPG)

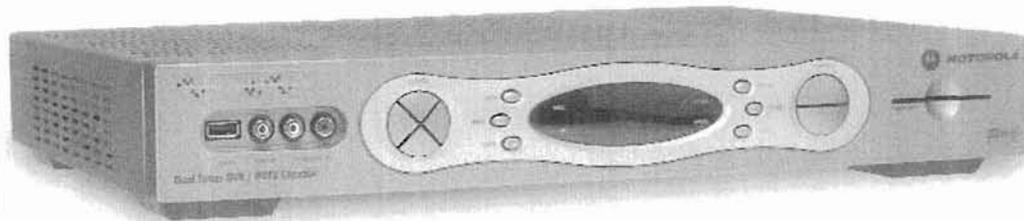
Simultaneously:

- Watch two programs and easily switch between them using the remote control
- Record one program while viewing another program
- Record two programs at the same time
- Watch a program recorded on your DCT6400 set-top while recording two other programs at the same time

The DCT6400 Series dual tuner combines your high-definition television with powerful interactive and entertainment services.

The DCT6400 Series set-top:

- Initiates, authorizes, and facilitates the purchase of on demand programming services
- Decodes high-definition video
- Outputs HDTV in multiple video modes
- Enables high-quality video and surround-sound audio
- Supports multi-size, factory-installed hard disk drives (HDD)
- Provides dual tuner DVR functionality to pause and time shift live video
- Includes a built in DOCSIS cable modem for IP services
- Digital outputs: IEEE 1394 / DVI



DESCRIPTION

- Advanced digital set-top that supports HDTV, Dolby 5.1, and DVR services
- Dual video tuners for watch-and-record DVR services
- Digital decode of HD video / audio content
- Robust CPU, memory footprint, and 3D graphics to run IPG, VOD, advanced applications, and middleware
- Built in DOCSIS modem for high speed interactivity
- Full range of interfaces including YPbPr, DVI, 1394, USB, Ethernet, SPDIF, and SmartCard

FEATURES

Standard Features

- MPEG-2 digital video processor
- Integrated high-definition decoder with YPbPr component output
- Built-in dual MPEG analog encoder
- PCM, AC-3, Dolby 5.1 Prologic Digital audio capability
- ITU standard 64/256 QAM/FEC/enhanced adaptive equalizer
- DOCSIS 1.0 / 1.1 capable integrated cable modem
- Three 54-860 MHz tuners (two video, one data)
- Frequency agile 2.048 Mbps out-of-band data receiver
- 32 bit, 2-D / 3-D graphics
- MIPS, RISC-based processor
- Analog/digital video scaling (Picture in Graphics)
- 16 MB Flash, 128 MB DRAM standard unified memory
- Clear analog channel processor with BTSC decoder
- DES-based encryption/DCII access control
- Digital diagnostics
- Macrovision® copy protection
- Full feature access from front panel

Standard Interfaces

- DVI and 1394 (DTV) digital interfaces
- Optical and electrical SPDIF / Dolby Digital connectors
- S-Video output
- RF and baseband output (Video, L/R Audio) ports
- Front and rear panel L/R audio and video inputs
- Two USB connectors (one on front panel)
- 10/100 Base-T Ethernet port (RJ45 Connector)
- Smartcard interface connector (e-commerce)
- TVPASS™ renewable security connector
- IR blaster port
- 4 digit, 7 segment LED display with IR receiver for remote or/and keyboard
- Switched Accessory Outlet

General Specifications

Dimensions	17.13 W x 12.75 H x 2.75 D
Weight	11.5 lbs

Accessories

DRC800 universal remote control (sold separately)

Specifications are subject to change without notice.

MGBI



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DCX700 All-Digital HD Set-top

MPEG-4 Capable, MR-DVR Capable, Wall-Mountable

Features

Embedded MediaCipher™ Conditional Access or MediaCipher™ Cable Card support (pre-installed at factory)

Compatible with Motorola DCT / DCH legacy software API set

Single 1GHz digital video tuner (QAM 64/256)

High-definition (HDTV) decode of MPEG-2, MPEG-4 AVC (H.264), VC-1

Audio decode of Dolby® Digital, Dolby® Digital Plus, AAC-LC / HE-AAC, WMA9, MP3

Optional MoCA® home-networking interface

SCTE 55-1 / SCTE 55-2 Out-of-band

Video scaling (Picture-in-Graphics)

Accelerated 2-D and 3-D graphics

64 MB Flash (standard), 256 MB DRAM total (standard)

IR Remote Sensor (IR remote tether sold separately)

Remote and On screen diagnostics

Switched Digital Video capable

Macrovision®, HDCP, DTCR and CGMS-A content protection schemes on the respective interfaces

Front Panel LED displays for Power, Data, and Record (MoCA® only)

Small footprint, elegant wall mounted profile

Serial port and External IR input are combined one 3.5 mm connector

As competition in the video service industry continues to increase, cable operators require advanced technologies for delivering a superior digital viewing experience and exciting new applications. Motorola has developed a sophisticated all-digital solution with the DCX series, the next generation of Host set-tops. The DCX set-tops are loaded with features for improving bandwidth efficiency and providing high-definition video with surround sound audio, while bringing on-demand and interactive services to a connected home environment.

The Motorola DCX700 is a cost-effective, High-Definition (HD) set-top with a single 1 GHz tuner that supports both MPEG-2 and MPEG-4 AVC services. The all-digital DCX700 includes the latest audio and video output interfaces, including HDMI™ and Dolby® Digital Plus. When configured with the optional MoCA® home networking interface, the DCX700-M can serve as a multimedia client for accessing content from other compatible devices in the home.

With the optional MoCA® Home Networking component, the DCX700-M provides the flexibility to not only watch your favorite programs on your schedule, but also choose the room in your home where you would like to view your programs. The DCX700-M serves as a multimedia client that can access and playback recorded programs from a separate MoCA®-enabled DVR set-top within the home over the existing coaxial cabling

SPECIFICATION SHEET

DCX700

STANDARD INTERFACES

Front Panel

Power indicators (Power, Data, and Record)
IR remote control sensor
USB 2.0 Host Type A port Connector

Rear Panel

F-connector for Cable input
HDMI™ output
YPbPr component output
Baseband composite video output
L/R audio output – fixed line level
Optical S/PDIF digital audio outputs
USB 2.0 Host Type A port
1394a interface
3.5mm Serial port
3.5mm External IR input

MANUFACTURING OPTIONAL FEATURES

DCX700-M with MoCA® 1.1 home networking interface
Pre-installed M-Card or embedded MediaCipher™ Conditional
Access

SPECIFICATIONS

RF Input Frequency:	54 to 1002 MHz (video and audio)
Memory:	64MB Flash 256 MB DRAM standard unified Legacy Platform Supported
Video:	Up to 32-bit color, accelerated 2-D and 3-D support, and scalable video-in-graphics
Processor:	MIPS, RISC-based
Graphics Resolution:	SD Outputs – 4:3 up to 720x480 HD Outputs – 16:9 up to 1920x1080
Video Resolution:	480i, 480p, 576i/p, 720p, 1080i and 1080p 24/30 (HDMI™ only) Supports NTSC / PAL-M / PAL-Nc
Operating Temperature	10 °C to 42 °C (50 °F to 108 °F)
Operating Humidity	5 to 90% (non-condensing)
AC Voltage	105 to 125 VAC, 60 Hz
Power Dissipation	20 W
OOB Modulation QPSK:	Frequency Agile receiver 70 to 130 MHz Bandwidth 2.0 MHz maximum Level –15 to 15 dBmV
Digital Input Level	64 QAM, –15 to 15 dBmV 256 QAM, –12 to 15 dBmV
Dimensions	10 in W x 5.6 in D x 1.6 in H (25.4 cm x 14.2 cm x 4.0 cm)
Weight	1.5 lbs (0.68 kg)

Certain features may not be activated by your service provider, and/or their network settings may limit the feature's functionality. Additionally, certain features may require a subscription. Contact your service provider for details.

All features, functionality, and other product specifications are subject to change without notice or obligation.



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Features

M-Card™ (Multi-stream CableCARD) Host support for conditional access

OpenCable Application Platform (OCAP™) capable

Compatible with Motorola DCT/DCH legacy software API set

Single 1GHz digital video tuner (QAM 64/256)

High-definition (HDTV) decode of MPEG-2, MPEG-4 AVC (H.264), VC-1

Audio decode of Dolby® Digital, Dolby® Digital Plus, AAC-LC / HE-AAC, WMA9, MP3

Optional MoCA™ home-networking interface

Independent 1GHz DOCSIS tuner

DOCSIS 2.0+ embedded Cable Modem with support for DSG and down-stream channel bonding (2 down, 1 up)

SCTE 55-1 / SCTE 55-2 Out-of-band

Video scaling (Picture-in-Graphics)

Accelerated 2-D graphics

64 MB Flash (standard), 256 MB DRAM total (standard)

Front Panel LED displays for Power, Data, and Record (MoCA™ only)

Remote and On screen diagnostics

Switched Digital Video Capable

Macrovision®, HDCP, DTCP, and CGMS-A content protection schemes on the respective interfaces

DCX3200

As competition in the video service industry continues to increase, cable operators require advanced technologies for delivering a superior digital viewing experience and exciting new applications. Motorola has developed a sophisticated all-digital solution with the DCX series, the next generation of Host set tops. The DCX set-tops are loaded with features for improving bandwidth efficiency, providing high-definition video with surround sound audio, and bringing on-demand and interactive services to a connected home environment.

The Motorola DCX3200 is a High-definition set-top with a single 1 GHz tuner that supports both MPEG-2 and MPEG-4 AVC services. The all-digital DCX3200 includes the latest audio and video output interfaces, including HDMI™ and Dolby® Digital Plus audio. When configured with the optional MoCA™ home networking interface, the DCX3200-M can serve as a multimedia client for accessing content from other compatible devices in the home. An embedded DOCSIS 2.0+ cable modem provides support for DSG and downstream channel bonding.

Bandwidth Efficiency Solutions

The DCX3200 fully supports the growing consumer demand for high-definition programming and high bandwidth advanced applications. The DCX3200 provides new methods of efficiently utilizing limited bandwidth for delivering these services. For example, the DCX3200 is capable of decoding MPEG-4 video streams, requiring significantly less bandwidth than MPEG-2 to deliver comparable quality video services. The 1GHz digital video tuner in the DCX3200 supports future plant expansion, enabling operators to increase the number of available channels. The DCX3200 also supports Switched Digital Video (SDV) solutions, allowing service providers to maximize the use of their available bandwidth by delivering programming only to nodes where and when subscribers actively request that programming.

Home Networking

With the optional MoCA™ Home Networking component, the DCX3200-M provides the flexibility to not only watch your favorite programs on your schedule, but also choose the room in your home where you would like to view your programs. The DCX3200-M serves as a multimedia client that can access and playback recorded programs from a separate MoCA™-enabled DVR set-top within the home over the existing coaxial cabling.

Remote Diagnostic Capabilities

The DCX3200 supports Motorola's SmartStream Terminal Data Collector (STDC) service for remotely gathering important set top status and health information in a centralized server for evaluation and corrective action. STDC provides operators with the ability to isolate and troubleshoot plant issues, improve service quality, and reduce operation costs.



Features

- Mi-Card™ (Multi-stream CableCARD) Host support for conditional access
- tru2way™ capable platform
- Compatible with Motorola DCT/DCH legacy software API set
- Single 1GHz digital video tuner (QAM 64/256)
- High-definition (HDTV) decode of MPEG-2, MPEG-4 AVC (H.264), VC-1
- Audio decode of Dolby® Digital, Dolby® Digital Plus, AAC-LC / HE-AAC, WMA9, MP3
- MR-DVR Capable (Optional MoCA® Home Networking Interface)
- Independent 1GHz DOCSIS tuner
- DOCSIS 2.0+ embedded Cable Modem with support for DSG and downstream channel bonding (2 down, 1 up)
- SCTE 55-1 / SCTE 55-2 Out-of-band
- Video scaling (Video-in-Graphics)
- Accelerated 2-D and 3-D graphics
- 64 MB Flash (standard), 256 MB DRAM total (standard)
- Front Panel Power/Standby button
- Front Panel LED displays for Power, Data, Home LAN, Message, and Record (MoCA™ only)
- Clock/Display (4-character, 7-segment)
- Remote and On-screen diagnostics
- Switched Digital Video Capable
- Macrovision®, HDCP, DTCP, and CGMS-A content protection schemes on the respective interfaces

DCX3200 P2

•All-Digital •MPEG-4 •MR-DVR Capable

As competition in the video service industry continues to increase, cable operators require advanced technologies for delivering a superior digital viewing experience and exciting new applications. Motorola has developed a sophisticated all-digital solution with the DCX series, the next generation of Host set-tops. The DCX set-tops are loaded with features for improving bandwidth efficiency, providing high-definition video with surround sound audio, and bringing on-demand and interactive services to a connected home environment.

The Motorola DCX3200 P2 has a new enclosure design that significantly reduces the set-top's dimensions compared to the Phase-1 model. In addition, the DCX3200 P2 provides a front panel clock and channel display, as well as a front panel Power/Standby button. It is a high-definition set-top with a single 1 GHz tuner that supports both MPEG-2 and MPEG-4 AVC services. The all-digital DCX3200 P2 includes the latest audio and video output interfaces, including HDMI™ and Dolby® Digital Plus audio. When configured with the optional MoCA® home networking interface, the DCX3200-M provides the flexibility to serve as a multimedia client for accessing content from other compatible devices in the home. An embedded DOCSIS 2.0+ cable modem provides support for DSG and downstream channel bonding.

Multi-Room DVR

With the optional MoCA Home Networking component, the DCX3200-M provides the flexibility to not only watch your favorite programs on your schedule, but also choose the room in your home where you would like to view your programs. The DCX3200-M serves as a multimedia client that can access and playback recorded programs from a separate MoCA-enabled DVR set-top within the home over the existing coaxial cabling.

Bandwidth Efficiency Solutions

The DCX3200 P2 fully supports growing consumer demand for high-definition programming and high bandwidth advanced applications. The DCX3200 P2 provides new methods of efficiently, and cost effectively, utilizing limited bandwidth for delivering these services through support of MPEG-4 decode technologies. For example,

the DCX3200 P2 is capable of decoding MPEG-4 video streams, requiring significantly less bandwidth than MPEG-2 to deliver comparable quality video services. It also supports Switched Digital Video (SDV) solutions, allowing service providers to maximize the use of their available bandwidth by delivering programming only to nodes where and when subscribers actively request that particular program.

Remote Diagnostic Capabilities

The DCX3200 P2 utilizes Motorola's SmartStream Terminal Data Collector (STDC) service for remotely gathering important set-top status and health information in a centralized server for evaluation and corrective action. STDC provides operators with the ability to isolate and troubleshoot plant issues, improve service quality, and reduce operation costs.

SPECIFICATION SHEET

DCX3200 P2

STANDARD INTERFACES

Front Panel

Power/Standby button
 Power, Data, Home LAN, Message, and Record indicators
 Clock/Display (4-character, 7 segment)
 IR remote control sensor (Motorola/XMP-1/XMP-2)
 USB 2.0 Host Type A port

Rear Panel

F-connector for Cable input
 Pre-Installed M-Card™
 HDMI™ output
 YPbPr component output
 Baseband composite video output
 S-Video output
 L/R audio output – variable
 Coaxial and Optical S/PDIF digital audio outputs
 USB 2.0 Host Type A port
 1394a interface
 10/100 Ethernet interface
 3.5mm Serial port
 3.5mm External IR input

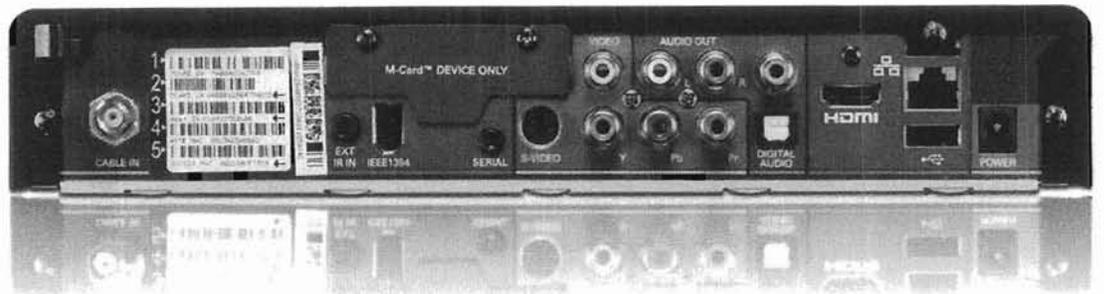
MANUFACTURING OPTIONAL FEATURES

Integrated MoCA™ Home Networking interface (DCX3200-M)
 64MB Flash, 512MB DRAM memory configuration

SPECIFICATIONS

RF Input Frequency:	54 to 1002 MHz (video and audio)
Memory:	64 MB Flash; 256 MB DRAM
Video:	Up to 32-bit color, accelerated 2-D support, and scalable video-in-graphics
Graphics Resolution:	SD Outputs 4:3 up to 720x480 HD Outputs 16:9 up to 1920x1080
Video Resolution:	480i, 480p, 576i, 576p, 720p, 1080i, and 1080p 24/30 (HDMI only)
Audio:	Dolby Digital, Dolby Digital Plus, HE-AAC, WMA9, MP3 capable
Operating Temperature	15 °C to 40 °C (50 °F to 104 °F)
Operating Humidity	5 to 90% (non-condensing)
AC Voltage	105 to 125 VAC, 60 Hz
Power Dissipation	15 W Non-MoCA (depending on features) 18 W MoCA (depending on features)
OOB Modulation QPSK:	Frequency Agile receiver 70 to 130 MHz Bandwidth 2.0 MHz maximum Level –15 to 15 dBmV
Digital Input Level	64 QAM –15 to 15 dBmV 256 QAM –12 to 15 dBmV
Dimensions	10.63 in W x 8.46 in D x 1.97 in H (270mm x 50mm x 215mm)
Weight	5.00 Lbs. (2.27 kg)

All features, functionality, and other product specifications are subject to change without notice or obligation.



MOTOROLA



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Features

M-Card™ (Multi-stream CableCARD) Host support for conditional access

OpenCable Application Platform (OCAP™) capable

Compatible with Motorola DCT/DCH legacy software API set

Dual Tuner Digital Video Recorder (DVR)

Standard 160GB Hard Drive (250GB option)

Optional MoCA™ home-networking interface

Dual High-definition (HDTV) decode of MPEG-2, MPEG-4 AVC (H.264), VC-1

Dual Audio decode of Dolby® Digital, Dolby® Digital Plus, AAC-LC / HE-AAC, WMA9, MP3

Dual 1 GHz digital video tuners
1GHz DOCSIS tuner

Picture-in-Picture

Accelerated 2-D and 3-D graphics

DOCSIS 2.0+ embedded Cable Modem with support for DSG and down-stream channel bonding (3 down, 1 up)

SCTE 55-1 / SCTE 55-2 Out-of-band (OOB) data transmitter/receiver

32 MB Flash (standard), 256MB DRAM total (standard)

Full featured front panel display and controls

Remote and on-screen diagnostics

Switched Digital Video (SDV) Capable

Macrovision®, HDCP, DTCP, and CGMS-A content protection schemes on the respective interfaces

DCX3400

As competition in the video service industry continues to increase, cable operators require advanced technologies for delivering a superior digital viewing experience and exciting new applications. Motorola has developed a sophisticated all-digital solution with the DCX series, the next generation of Host set tops. The DCX set-tops are loaded with features for improving bandwidth efficiency, providing high-definition video with surround sound audio, and bringing on-demand and interactive services to a connected home environment.

The DCX3400 is a Digital Video Recorder (DVR) with dual 1GHz video tuners and support for both MPEG-2 and MPEG-4 high definition decode. The all-digital DCX3400 includes the latest audio and video output interfaces, including HDMI™ and Dolby® Digital Plus audio. The optional MoCA™ Home Networking component enables the DCX3400-M set top to serve as a media hub for in a connected home environment. An embedded DOCSIS 2.0+ cable modem provides support for DSG and downstream channel bonding.

Bandwidth Efficiency Solutions

The DCX3400 fully supports the growing consumer demand for high-definition programming and high bandwidth advanced applications. The DCX3400 provides new methods of efficiently utilizing limited bandwidth for delivering these services. For example, the DCX3400 is capable of decoding MPEG-4 video streams, requiring significantly less bandwidth than MPEG-2 to deliver comparable quality video services. The dual 1GHz digital video tuners in the DCX3400 support future plant expansion, enabling operators to increase the number of available channels. The DCX3400 also supports Switched Digital Video (SDV) solutions, allowing service providers to maximize the use of their available bandwidth by delivering programming only to nodes where and when subscribers actively request that programming.

Watch and Record Flexibility

Consumers value the watch-and-record flexibility that a dual tuner DVR set top provides. The DCX3400 further enhances this experience with a 250GB hard drive upgrade to provide ample capacity for recording an entire household's favorite shows. The optional integrated MoCA™ Home Networking component enables the DCX3400-M set top to act as a media hub for sharing content on its hard drive with other non-DVR set-tops in the home.

Remote Diagnostic Capabilities

The DCX3400 supports Motorola's SmartStream Terminal Data Collector (STDC) service for remotely gathering important set top status and health information in a centralized server for evaluation and corrective action. STDC provides operators with the ability to isolate and troubleshoot plant issues, improve service quality, and reduce operation costs.

STANDARD INTERFACES

Front Panel

Power, Message, Data, and Home LAN indicators

Output video format indicator

4-character 7-segment display

2 Recording indicators

IR remote control sensor

USB 2.0 Host Type A port

4-way navigation, Select, Power, Menu, Guide, Info, Channel Up/Down and Format buttons

Rear Panel

F-connector for Cable input

Pre-installed M-Card™

HDMI™ output

YPbPr component output

Baseband composite video output

RF Remod output (Ch. 3/4)

S-video output

L/R audio output with volume control

L/R audio output – fixed line level

Coaxial and Optical S/PDIF digital audio outputs

USB 2.0 Host Type A port

1394a interface

10/100 Ethernet interface

eSATA interface

Mini-phone 3.5mm serial port / External IR input

Accessory Outlet Unswitched 4 A/500 W maximum

SPECIFICATIONS

RF Input Frequency: 54 to 1002 MHz
(video and audio)

Memory: 32MB Flash; 256 MB DRAM

Video: Up to 32-bit color, accelerated 2-D and 3-D support, and scalable video-in-graphics

Processor: MIPS, RISC-based

Hard Disk Drive: 160GB; 250GB (optional)

Graphics Resolution: SD Outputs 4:3 up to 720x480
HD Outputs 16:9 up to 1920x1080
Video Resolution 480i, 480p, 720p, 1080i and 1080p 24/30 (HDMI only)

Operating Temperature: 15 °C to 42 °C (50 °F to 108 °F)

Operating Humidity: 5 to 90% (non-condensing)

AC Voltage: 105 to 125 VAC, 60 Hz

Power Dissipation: 35 W (depending on features)

Out of Band: Frequency Agile receiver 70 to 130 MHz
Bandwidth 2.0 MHz maximum
Level -15 to 15 dBmV

Digital Input Level: 64 QAM -15 to 15 dBmV
256 QAM -12 to 15 dBmV

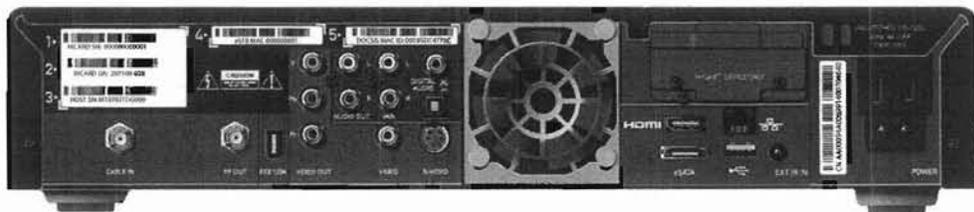
Dimensions: 15.0 in W x 9.87 in D x 3.2 in H
(38.1 cm x 25.07 cm x 8.13 cm)

Weight: 8 Lbs. (3.63 kg)

MANUFACTURING OPTIONAL FEATURES

Integrated MoCA™ Home Networking interface (DCX3400-M)
250GB Hard Drive with Shock Mounting

All features, functionality, and other product specifications are subject to change without notice or obligation.



Rear view



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Subscriber Networks

Explorer® 4250C™ and 4250HDC™ Digital Interactive Set-Top with Multi-Stream CableCARD™ Interface

Description

Scientific Atlanta's Explorer® 4250C™ Digital Interactive Set-Top provides *standard-definition* (SD) video capability and broadband digital video services with a Multi-Stream CableCARD™ (M-Card™) interface.

Additionally, the Scientific Atlanta Explorer® 4250HDC™ digital Interactive Set-Top with an M-Card interface adds *high-definition* (HD) video tuning and connection features.

The 4250C and the 4250HDC are the first Scientific Atlanta separable security non-DVR set-tops with support for the M-Card module. It is expected that the FCC will require cable service providers in the United States to deploy set-tops with separable security by July 2007.



Features

Separable Security

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

OpenCable Network Support

- *Axiom™ Middleware* supports OCAP™ applications such as service navigators, games, and many other future applications (optional software)
- *DSG (DOCSIS® Set-top Gateway)* provides a powerful transport mechanism for command and control signaling between the set-top and service provider network (optional software)

Conventional Scientific Atlanta Network Support

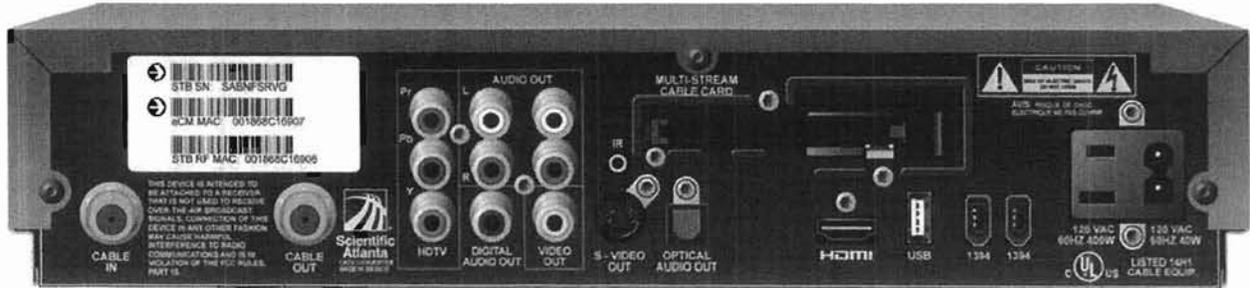
- *Scientific Atlanta Resident Application (SARA) Software* on a separable security set-top supports native navigator and user interface in a non-OCAP service provider network environment (optional software)
- *DAVIC Receiver/Transmitter* allows IP-based, real-time, two-way communication between the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

Standard Features

- 2 x 250 MIPS with Dual CPUs to provide the processing power for feature-rich applications
- Flexible Memory Options to support either native application or OCAP applications

Explorer 4250C and 4250HDC Digital Interactive Set-Top with Multi-Stream CableCARD Interface

Back Panel



T12934

Note: Image is of the 4250HDC back panel. Image may vary from actual product and specification.

Specifications

Front Panel	
Connections	USB 1.1 Host
Controls	IR Receiver, 10 buttons: Power, Vol+, Vol-, Ch+, Ch-, Select, Guide, Info, Exit, Settings
Indicators	Power, Message
Branding	Scientific Atlanta logo, Model Number, Provision for Service Provider Branding

Back Panel - Standard	
Connections—In	Cable In
Connections—Out	Cable Out, L/R Audio, Baseband Video, Coax Digital Audio, IR, and S-Video
Network	USB 1.1 Host
Separable Security	Multi-Stream CableCARD (M-Card) interface
Power Input	Polarized 2-prong modular cord plug, 115 VAC, 60 Hz, 40 W maximum
Power Output	Polarized 2-prong outlet, at input line voltage, 400 W maximum, software controlled
Labels	Serial Number and RF MAC Address with bar code
Back Panel—Additional on 4250HDC	
Connections—Out	YPbPr, Secondary L/R Audio, Optical Digital Audio, HDMI™, and Dual IEEE-1394 6-Pin

Explorer 4250C and 4250HDC Digital Interactive Set-Top with Multi-Stream CableCARD Interface

Tuning and Decoding - Standard	
Tuning	Audiovisual program reception on analog, QAM 64 and QAM 256 using 54 MHz to 860 MHz
Video Decoders	MPEG-2 MP@ML (SD, 720 x 480i), Video Scaling
Audio Decoders	Dolby® Digital up to 5.1, MPEG, BTSC/SAP
Conditional Access	Separable security through the M-Card interface
Graphics Engine	65,000 colors, 640x480 resolution, simultaneous scale MPEG-2 video
DAVIC	FDC (Forward Data Channel) 1.54 Mbs QPSK, RDC (Reverse Data Channel) 1.54 Mbs QPSK, FAT QAM Channel Downstream
DOCSIS	FDC DOCSIS 1.0, RDC DOCSIS 1.0, Baseline Privacy Interface (requires optional software)
Additional for 4250HDC	
Video Decoders	MPEG-2 MP@HL (HD, 1920 x 1080i, 1280 x 720p, 720 x 480p, and 720 x 480i)

Memory /Storage	Optional OCAP Configuration	SARA Configuration
CPU/Apps RAM	128 MB	32 MB
CPU Flash	32 MB	8 MB
Video Graphics	32 MB	32 MB
CPU NVM	16 kB	16 kB

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

Dimensions	
Product (WxDxH)	12 in. x 8.75 in. x 2.75 in. (30.5 cm x 22.2 cm x 7 cm)
Product Weight	4.5 lbs (2.04 kg)
Carton (WxDxH)	18.5 in. x 14 in. x 6 in. (47 cm x 36 cm x 15.2 cm)
Total Weight	7.5 lbs in carton (3.4 kg)

Temperature Range and Placement	
Room Temperature (Operating)	32°F to 105°F (0°C to 40°C) during operation
Storage Temperature	14°F to 158°F (-10°C to +70°C)
Placement	Locate the 4250C and 4250HDC with at least 2 inches of open space above and on each side. Do not cover the vents.

Explorer 4250C and 4250HDC Digital Interactive Set-Top with Multi-Stream CableCARD Interface

Accessories

Standard		
Shipped In Carton	Power Cord, Connection Guide	
Additional Included for 4250HDC		
Shipped In Carton	YPbPr Component Video and L/R Audio Cable	
Optional		Part Number
Sold Separately	Axiom Middleware License	4014594
	Multi-Stream CableCARD PMK802	4014733
	SARA Software License	752351
	AllTouch® AT8550 Remote Control	4006369
	IR Extender—12 ft	1001807
	IR Extender—25 ft	4006725
	HDMI to HDMI Cable (4250HDC Only)	1002048
	HDMI to DVI Cable (4250HDC Only)	1002056
	YPbPr & L-R Cable Set—additional or replacement (4250HDC Only)	1000944
RGB adapter and cables (4250HDC Only)	749790	

Ordering Information

Contact your Sales Representative for product availability in your area.

Model	Description	Set-Top w/out CableCARD	Set-Top/ CableCARD Combo
4250HDC SARA Configuration	Explorer 4250HDC High-Definition Digital Interactive Set-Top with 8 MB of Flash and 32 MB Application Memory, HDMI, Dual IEEE-1394 Ports, and M-Card Interface	4015317	4016584
4250HDC OCAP Configuration	Explorer 4250HDC High-Definition Digital Interactive Set-Top with 32 MB of Flash and 128 MB Application Memory, HDMI, Dual IEEE-1394 Ports, and M-Card Interface	4015779	4016585
4250C SARA Configuration	Explorer 4250C Digital Interactive Set-Top with 8 MB of Flash and 32 MB Application Memory, and M-Card Interface	4015320	4016582
4250C OCAP Configuration	Explorer 4250C Digital Interactive Set-Top with 32 MB of Flash and 128 MB Application Memory, and M-Card Interface	4015782	4016583

Explorer 4250C and 4250HDC Digital Interactive Set-Top with Multi-Stream CableCARD Interface



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Specifications and product availability are subject to change without notice.

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

www.scientificatlanta.com

Part Number 7008361 Rev A
December 2006

Explorer® 8300™ Series Digital Video Recorders Offer Standard, HD, and Multi-Room™ Capabilities

Description

The **Explorer® 8300™ DVR** provides subscribers with the latest enhancements in cable television viewing.

The **Explorer 8300HD™ DVR** provides HD subscribers with the latest HD DVR features.

The **Explorer 8300 Multi-Room™ DVR** provides subscribers access to recorded programs in multiple rooms throughout the home on standard Explorer set-tops.



8300 DVR Family Features

The Explorer 8300 DVR is a standard definition, two-tuner digital video recorder (DVR) that provides the DVR services your subscribers want:

- Record one program while watching another
- Watch two programs at the same time, using the picture-in-picture (PIP) capability of the Explorer 8300 DVR
- Record programs without a VCR
- Supports expanded storage through an optional external Serial ATA (SATA) hard drive
- Easily access video/audio inputs and the USB port from the front panel, and access the Coaxial Digital Audio Output connector on the back panel

8300HD DVR Additional Features

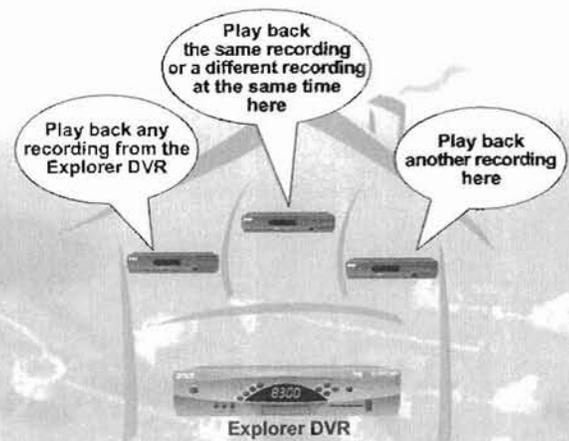
The Explorer 8300HD DVR provides the same features as the standard definition 8300 DVR and more:

- Connect to the set-top through the YPbPr, HDMI™, or optional 1394 connectors to an HDTV
- Stretch and zoom the video picture to maximize its viewable area on the HDTV display
- Select the resolution (scan rate) best suited for the HDTV (480i, 480p, 720p, or 1080i)
- Utilize the optical Digital Audio Output connector to easily connect to higher-end audio equipment

8300 Multi-Room DVR Additional Features

The Explorer 8300MR™ DVR delivers all the convenience and control of a two-tuner DVR—to as many as four televisions using existing wiring in the home and digital set-tops you may already have:

- Access the list of recorded shows stored on the Explorer 8300 MR-DVR server and its optional SATA hard drive
- Playback, pause, rewind, and/or fast-forward any recording at any time on set-tops in other rooms



Explorer 8300 Series Digital Video Recorders Offer Standard, HD, and Multi-Room Capabilities



Specifications

8300 and 8300MR-DVR Specifications

Base SD Model Features	Description
<p>DVR with 80 GB Hard Drive</p> <p>(Larger hard drives are available. Contact your North American marketing manager for more information.)</p>	<p>The 80 GB model allows up to 50 hours* of SD programs to be recorded and stored using DVR functions</p> <p>Gives subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live programs using the remote control</p> <p><i>*The total program hours that can be stored depends upon the format and data rate of the programming source.</i></p>
<p>DAVIC Reverse Path Data Transmitter</p>	<p>Allows IP-based, real-time, two-way communication between the Explorer 8300 Series DVR and the cable service provider's headend</p> <p>Supports interactive services such as xOD (anything-On-Demand), VOD (video-on-demand), and SVOD (subscription VOD)</p>
<p>Optional DOCSIS® 1.0 cable modem</p>	<p>The internal DOCSIS 1.0 cable modem implements the Baseline Privacy Interface and DOCSIS SNMP MIBs. The upstream transmitter can send QPSK and 16-QAM bursts to any headend CMTS that implements DOCSIS 1.0 or DOCSIS 1.1 specifications.</p>
<p>MPEG-2 MP@ML Standard Definition Digital Video Decompression</p>	<p>Allows decompression and presentation of audio and video</p> <p>Delivers up to 720 x 480i video resolution</p>
<p>Dual Analog and Digital Service Tuners (True Picture-In-Picture)</p>	<p>Allows both analog and MPEG-2 digital channels to be tuned and displayed</p> <p>Allows two programs to be displayed simultaneously using the PIP function</p>
<p>Dual Analog Encoders</p>	<p>Allows two analog SD programs to be recorded and displayed simultaneously</p>
<p>Dolby® Digital Audio and MPEG-1 Audio Support</p>	<p>Supports digital audio decoding of two-channel MPEG-1 Layers I & II and Dolby Digital with up to 5.1 channels of multi-channel surround sound. Also downmixes multi-channel Dolby Digital programs to surround-compatible left/right outputs.</p>
<p>PowerKEY® Conditional Access System</p>	<p>Provides digital security using an RSA encryption algorithm that mathematically matches pairs of keys</p> <p>Encrypts all recordings on an internal hard disk drive or on an optionally attached external SATA hard disk drive</p> <p>Allows upgrades using a network download</p>
<p>PowerTV® Operating System with HTML Client Engine</p>	<p>Offers a stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications</p>
<p>Enhanced Graphics Engine</p>	<p>Displays up to 65,000 colors simultaneously</p> <p>Enables high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video</p>
<p>Powerful 32-bit RISC Processors</p>	<p>Features two 250-MHz (500 MIPs total) processors to perform tasks and launch applications quickly</p>

Explorer 8300 Series Digital Video Recorders Offer Standard, HD, and Multi-Room Capabilities



Base SD Model Features, continued	Description
Over 96 MB Total Memory	Flash: 512 KB Applications DRAM: 64 MB Media DRAM: 16 MB MPEG encoding: 16 MB of DRAM NVM: 8 KB
64 and 256 ITU J.83 Annex B QAM Support	Supports open standards for QAM delivery and demodulation
Both Internal Security Microprocessor and Smart Card Slot	Provides 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 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	Provides stereo sound on analog channels through the baseband left and right audio outputs
BTSC Encoder	Provides stereo sound on the RF coaxial output
Coaxial Digital Audio Output	Supports coaxial interconnection with surround sound receivers (includes the encoding of analog audio)
Baseband Audio/Video Outputs	Offers a baseband audio/video connection to a VCR or TV
RF Cable Out	Offers a composite audio/video connection to a VCR or TV
Front Composite Audio/Video Inputs (will require a software enhancement download when available)	Supports interconnection to home consumer devices, such as VCRs, camcorders, or digital cameras for video and audio pass-through to the TV
Provision for Name Branding	Allows you to brand the Explorer 8300 series DVR with your company name and logo
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
Optional Dual IEEE 1394 Digital Outputs with Digital Transmission Content Protection (DTCP) (will require a software enhancement download when available)	Optional dual IEEE 1394 outputs with DTCP will provide a 400-Mbps interconnection to digital display devices (HDTVs)
Universal Serial Bus (USB) Port (will require a software enhancement download when available)	Front panel USB port for easy-to-access connection with home consumer devices such as USB keyboards