

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.

Product Overview

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 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.

Highlights

- 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 250GB Hard Drive (320GB and 500GB option)
- Optional MoCA™ home-networking interface
- Dual High-definition (HDTV) decode of MPEG-2, MPEG-4 AVC (H.264), VC-1

SPECIFICATIONS

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

GENERAL SPECIFICATIONS

RF Input Frequency:	54 to 1002 MHz (video and audio)
Memory:	64MB 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:	250GB (160GB, 320GB 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)

More Highlights

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

Dual 1GHz 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

64 MB Flash, 256MB DRAM total (512MB DRAM option)

Full-featured front panel display and controls

Remote and on-screen diagnostics

Switched Digital Video (SDV) Capable

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

SPECIFICATIONS

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 MoCAT™ Home Networking interface (DCX3400-M)
320GB or 500GB Hard drive with shock mounting
512MB DRAM memory upgrade

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



To order these services, contact your sales representative.

SET-TOP LOGISTICS AND OPTIMIZATION

Have Motorola help optimize your set-top warehouse logistic processes to improve efficiency, reduce costs, and maximize profitability.

BENEFITS

Besides impacting customer loyalty, your set-top return, warehousing, repair, and redeploy operations may cost significant amounts of time and money if not managed efficiently. Two key issues in these operations are Handling and NPF (No Problem Found), which add unnecessary costs, consume resources, and decrease efficiency, thereby negatively impacting your bottom line.

476666-084-00	SET-TOP LOGISTICS OPTIMIZATION SERVICES To order this service, please contact your Motorola sales representative
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STB211: Set-top Warehouse Deployment and Troubleshooting

This course outlines Motorola’s recommended “Best Practices” for the deployment of new set-tops, repair returns and field pulls. We will also go over how to troubleshoot new set-tops, repair returns and field pulls.

Credits: 1 | Length: 1 hour | **P/N: 481532-062-00**

STB212: DCX3400 Installation, Operation and Troubleshooting v1.3

This course provides installers and operators instructions on how to install, operate, and troubleshoot the DCX3400 set-top. It will identify front panel buttons, indicators, and connectors as well as describe the MCard/Host Validation process.

Credits: 1 | Length: 1 hour | **P/N: 481532-063-00**



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