



# DCH6416

Analog/Digital, HDTV, Dual-Tuner DVR, M-Card™ Host Set-top

The Motorola DCH6416 analog/digital HD DVR Host set-top provides a full set of SDTV, HDTV, and data features and interfaces. In addition to high-definition digital video, the DCH6416 provides superior analog picture quality with dual-channel 3-D comb filters and motion-compensating noise reduction. The DCH6416 supports a wide range of current and future interactive applications running on Motorola's existing DCT legacy APIs.

## Features

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

Digital Video Recording (DVR) with support for dual recording and watch-and-record functionality

160 GB hard drive with shock mounting and fan

Compatible with Motorola DCT legacy APIs

Standard-definition (SD), enhanced-definition (ED), and high-definition (HD) MPEG-2 video support with output scaled to 480i, 480p, 720p, or 1080i

Dual 54 to 864 MHz video tuners

Digital video (64 QAM/256 QAM)

Video scaling (Picture-in-Graphics)

Accelerated graphics

Motion-compensating temporal filter video noise reduction

Motion-adaptive de-interlacing

Dual channel 3-D comb filter for state-of-the-art color and resolution

Dual MPEG-2 encoders for analog content

Dolby™ Digital 5.1 and PCM audio

16 MB Flash (standard)

128 MB DRAM total (standard)

DOCSIS® 2.0 cable modem with support for DSG

RF out-of-band (OOB) data transmitter/receiver

On-screen diagnostics

Macrovision™, HDCP, 5C DTCP, and CGMS-A content protection schemes on the respective interfaces

Full-featured front panel display and controls

**SPECIFICATION SHEET**  
DCH6416 Set-top Box

**STANDARD INTERFACES**

Front Panel	On/Standby and Message indicators, output video format indicator, 4-character 7-segment display, 2 recording indicators, IR remote control sensor, USB 2.0 Host Type A port
Rear Panel	F-connector for cable input, M-Card slot, RF remodulated output (Ch 3/4), HDMI output, YPbPr component output, baseband composite video output, S-video output, L/ R audio output, coaxial and optical S/PDIF digital audio outputs, USB 2.0 Host Type A port, 1394a interfaces (2), 10/100 Mbps Ethernet interface, eSATA interface, mini-phone serial port

**MANUFACTURING OPTIONAL FEATURES**

M-Card pre-installed, 256 MB DRAM (upgrade from 128 MB)

**SPECIFICATIONS**

RF Input Frequency	54 to 864 MHz
Memory	16 MB Flash; 128 MB DRAM standard unified
Legacy Platform	Supported
Video	Up to 32-bit color, accelerated 2-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, 720p, and 1080i
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	46 W (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	17.2 in W x 12.70 in D x 2.76 in H (43.23 cm x 32.26 cm x 7.01 cm)
Weight	12.0 lb (5.4 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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