

A completely integrated satellite and cable receiver.

The ultimate in entertainment value comes home with Motorola's dual source receiver. One of the first of its kind - a completely integrated satellite and cable receiver - to enhance basic analog cable service with digital satellite entertainment. The DSR-410DS offers more programming choices, excellent studio broadcast picture enabled by digital transmission, and a wealth of user features that make the entertainment experience an interactive and satisfying experience.

Watch local programs. Seamless integration with cable television brings you the local channels that digital satellite alone does not currently deliver to rural areas.

Find a particular show or sporting event using the on-screen display. Look for programs by name in the on screen viewer menu system.

Create a set of favorite channels. Set a personal list of favorites, customized to your own viewing preferences from among hundreds of programming choices available via satellite.

Create a safe environment for your family. Set password-protected parental control guides to allow only the types of shows with the levels of violence, language and content that are appropriate for your family.

Watch a first-run movie - without leaving the house. A wide range of Instant-Pay-Per-View options lets you enjoy an entire evening's worth of great entertainment for a fraction of the cost - and effort - of a trip to the theater. You can also watch sports events and special "live" performances at the touch of a button.

Program Reminder Timers. Flexible program timers let you pre-select or use your VCR to record anything you might miss - whether it is a specific event or a daily show.

Create a home theater. Dolby® brand AC-3® surround sound lets you bring theater-style sound as well as CD-quality music to your home system when available on satellite signal.

With the latest in satellite programming and a receiver from one of the world leader in end-to-end digital transmission and satellite TV, Motorola, you get the best of cable and the satellite world delivered right into your own home.



- Support for dual LNBs
- Seamless cable and satellite technologies integrated and delivered in a single digital entertainment receiver
- Easy viewer menu system
- Digital satellite programming plus local content via analog cable
- Parental controls to block programming and limit access to underage viewers
- Instant-Pay-Per-View: Movies, Sports, Special Events
- Dolby® brand AC-3® surround sound
- **Optional Accessories:**
 - Premium 4:1 Remote Control Unit (Satellite receiver, TV, VCR/DVD and stereo)
 - UHF Kit enables wireless control from anywhere in your house



MOTOROLA
intelligence everywhere™

DSR-410 DUAL SOURCE RECEIVER SPECIFICATIONS

L-BAND INPUT

Input Frequency.....	950 to 2150 MHz
Input Impedance.....	75 Ω
Input Level.....	(-)65 to (-)25 dBm
Return Loss.....	8 dB (minimum)

CABLE INPUT

Input Frequency.....	54 to 860 MHz
Input Impedance.....	75 Ω
Analog Input Level.....	0 to (+)15 dBmV
Noise Figure @ 10 dBm Input.....	<10 dB

DIGITAL PROCESSING

Demodulation.....	QPSK
Symbol Rates.....	19.51 and 29.27 Msps

CABLE VIDEO (ANALOG)

Frequency Response.....	(+)1.58 to (-)1.94 dB, 0.5 to 3.0 MHz (+)1.58 to (-)2.98 dB, @ 3.58 MHz
Differential Gain.....	8.0% p-p maximum
Differential Phase.....	8.0° p-p maximum
S/N.....	49 dB minimum @ 6 dBmV (unified weighing 100 kHz to 4.2 MHz)

DIGICIPHER® II COMPOSITE VIDEO

Outline Level.....	1.0 V p-p \pm 10%, sync tip to reference white
Frequency Response (NTSC).....	\pm 1.0 dB, 1 kHz to 4.2 MHz
C-L Delay Inequality.....	\pm 50 nsec
Diff Gain.....	5.0% p-p max (10-90% APL)
Diff Phase.....	5.0° p-p max (10-90% APL)
Luminance SNR.....	57 dB

VIDEO

Output Level.....	1 V p-p into 75 Ω
De-emphasis.....	525 line CCIR Rec. 405-1

AUDIO

Modes.....	Digital stereo (stereo or surround), S/PDIF for AC-3 where available, baseband stereo (BTSC, DCII mode)
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CABLE AUDIO (ANALOG)

Frequency Response.....	\pm 3.0 dB, 50 Hz to 10 kHz
Harmonic Distortion.....	2.0% maximum @ 1 kHz

DIGICIPHER II AUDIO, BASEBAND

Number of Stereo Outputs.....	2
Impedance.....	110 Ω (nominal)
Output Level.....	5.66 V p-p \pm 10% into 2k Ω load with 0 dBFS digital input
Frequency Response.....	1.0 dB p-p, 20 Hz to 20 kHz
THD.....	0.3% maximum from 20 Hz to 20 kHz referenced to (+)10 dBm encoder
SNR.....	85 dB (minimum)
Stereo Channel Isolation.....	60 dB (minimum)

DIGICIPHER II AUDIO, DIGITAL

Number of Outputs.....	1
Impedance.....	75 Ω
Signal Level.....	0.5 p-p \pm 20% into 75 Ω load
Connector.....	RCA
Format.....	Dolby AC3 or PCM

ASYNCHRONOUS DATA

Data Rate.....	1200, 2400, 4800, 9600 and 19200 bps
Format.....	Asynchronous 10 bit characters transmitted LSB first
Mode.....	Simplex
Interface.....	RS-232 voltages and impedance levels
Connector.....	Mini phone

VHF OUTPUT

Impedance.....	75 Ω
Channel.....	Channel 3 and 4
Level, Video.....	66 dBuV \pm 3 dB from VHF modulator
Audio.....	Mono, SAP (menu selected)

HIGH SPEED DATA

Data Rate.....	29.27 Mbps \pm 20 ppm
Format.....	AMI encoded with 8% minimum transition density
Multiplex.....	MPEG-2 compatible
Signal Level.....	0.5 V p-p \pm 20% AC coupled into a 110 Ω Connector..... DB-9

MODEM REPORTBACK INTERFACE

Standard.....	Bell 212A
Data Rate.....	1200 baud
Connector.....	RJ-11 telco plug

IR REMOTE CONTROL

Operational Range.....	35 feet; \pm 22.5° from center (horizontal axis) \pm 13.0° from center (vertical axis)
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UHF REMOTE CONTROL

Operational Range.....	150 foot radius from unit
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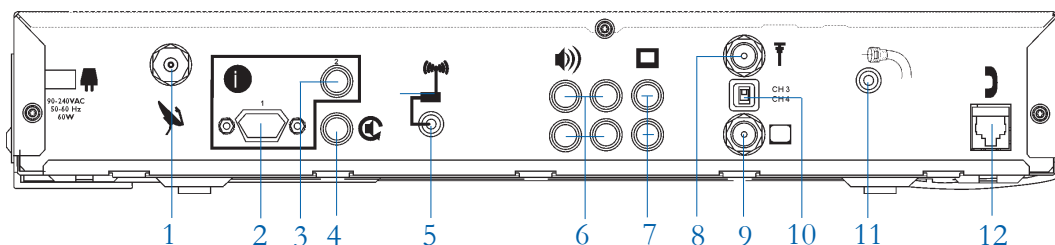
PHYSICAL/ENVIRONMENTAL

Temperature.....	0° - 40°C (ambient)
Humidity.....	95% relative
Dimensions.....	13.6"(W) x 2.5"(H) x 15"(D)
Weight.....	approx 11 lbs
Power Input.....	115V \pm 10% AC, 60 Hz (nominal), 25 W (maximum)
Regulatory Compliance.....	UL listed, CSA certified

OTHER

Remote.....	2 x AA batteries
Limited Warranty.....	One year

INPUTS/OUTPUTS



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|-----------------------------|---------------------------------|
| 1..... Satellite In | 7..... Dual Video Outputs |
| 2..... Data Port | 8..... Antenna In |
| 3..... Dolby Digital Output | 9..... TV Output |
| 4..... Multimedia Port | 10..... Channel 3/4 Remodulator |
| 5..... UHF Remote Port | 11..... Cable In |
| 6..... Dual Audio Outputs | 12..... Phone Jack |

