

**AN ADVANCED DIGITAL SATELLITE RECEIVER  
FOR ANALOG SERVICE CONVERSION AND  
BASIC CABLE OPERATIONS**

**HIGHLIGHTS INCLUDE:**

- MPEG-2 Main Level@Main Profile
- DigiCipher<sup>®</sup> II MegaPipe+ Support
- Variable tuning from 4 MHz to 36 MHz
- Dolby<sup>®</sup> Digital and MPEG layer II audio processing
- VBI reinsertion SID/AMOLII, NABTS and closed caption
- Stackable 1RU chassis design
- DigiCipher II conditional access control
- Quick disconnect screw terminals for easy installation
- Bypass video and audio inputs
- DTMF cue tones for local ad insertion
- ASI input and/or output for easy connection to digital cable headend products
- 10/100 BaseT Ethernet port for datacasting and/or SNMP monitoring and control
- Dedicated video diagnostics output

For more information regarding any of these features contact your Motorola sales representative.

# DSR-4410

## Commercial Satellite Receiver



The DSR-4410 IRD from Motorola brings the latest technology advances from the recognized leader in satellite program delivery. Building on the DigiCipher<sup>®</sup> II platform, the DSR-4410 IRD is affordable and easy to use. Its sleek packaging design fits in a standard 19" relay rack and requires only a single rack unit of space. The DSR-4410 is designed to deliver outstanding video and audio performance. This receiver can output either NTSC or PAL video formats, automatically matching the programmer's video format.

With a variable front-end and bypass capabilities, the DSR-4410 is ideally suited for network conversion from analog to digital. Full VBI reinsertion on lines 10 - 22 for SID/AMOL I & II and NABTS is standard on the DSR-4410. Equipped with DVB-ASI input and output, the DSR-4410 is ready to connect to the rest of your head-end equipment.

## TECHNICAL SPECIFICATIONS

### L-Band Input

Input Frequency:	950 - 2150 MHz
Input Impedance:	75
Input Connectors:	Two (2) F-type
LNB Power Out F-Connector:	16V DC min/450 mA
Port-to-Port Isolation:	40 db (minimum)

### DigiCipher II Processing

Modulation Modes:	OQPSK and QPSK
Symbol Rates:	3.25, 4.88, 7.32, 9.76, 11.71, 14.63, 19.51, 29.27 Msps
FEC Rates:	5/11 (19.51 & 29.27 Msps only), 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8
Eb/No:	4.0 db @ 19.5 Msps (FEC=3/4)

### Composite Video

Frequency Response (NTSC):	$\pm 0.75$ dB, 1 kHz - 4.2 MHz
Frequency Response (PAL):	$\pm 0.75$ dB, 1 kHz - 5.5 MHz
Signal/Noise Ratio:	57 dB (min)
Differential Gain:	4% (max)
Difference Phase:	4 deg. (max)
Output Impedance:	75
Output Level:	1.0 V p-p

### Audio

Output:	2 stereo pair or 4 mono
Output Level:	$\pm 18.0$ dBm, $\pm 1.0$ dB into 600 balanced load adjustable (0 to -15 dB)
Frequency Response:	$\pm 1.0$ dB, 20 Hz to 20 kHz
Total Harmonic Distortion:	0.25% or better at 1 kHz
Signal/Noise Ratio:	86.2 dB or better at 1 kHz
Isolation, L/R:	80 dB at 1 kHz
Impedance:	50
Connector:	Quick disconnect screw terminal

### Ethernet

Connector:	RJ-45
Format:	10/100BaseT

### ASI Output/Input

Format:	Asynchronous serial interface
Transmission:	Data byte and packet
Standard:	CENELEC EN 50083-9
Connector:	BNC

### Cue Tones

Signal Type:	Differential output
Signal Level:	0 dBm, $\pm 3$ dB (600)/tone
Connector:	Quick disconnect screw terminal

### Contact Closures

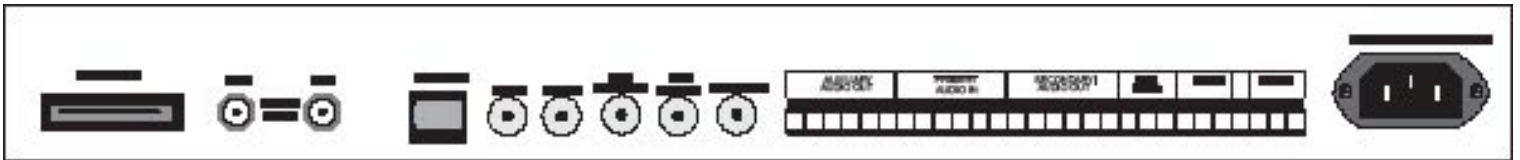
Number of Closures:	2
Type:	Form C

### Physical

Operating Temperature:	0° to 40°C
Humidity:	95%, relative maximum
Dimensions:	48 cm/18.90" (W) x 46 cm/18.11" (D) x 4.2 cm/1.65" (H)
Weight:	5.0 kg/11 lbs (approx.)
Power Input:	90-250 VAC, 47-63 H, 25 W

### Other

Limited Warranty:	One year
UL/TUV/CE:	Listed/approved



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