

# DSR-4550

# Commercial Integrated Receiver/Decoder





An Advance Feature Digital Satellite Receiver for Cable Programmers and Operators

# **Highlights Include:**

- Gig-E output for easy connection to digital cable headend products
- Advanced Modulation support with 8PSK Turbocode
- Digital component video output (SDI) with embedded audio
- AES digital audio output
- ASI input/output
- 8 RF Inputs (L-Band)
- MPEG-2 Main Level@Main Profile
- DigiCipher® II MegaPipe+ Support
- Variable tuning from 4 MHz to 36 MHz
- Dolby® Digital and MPEG layer II audio processing
- VBI reinsertion SID/AMOLII, NABTS and closed caption
- DigiCipher II conditional access control
- Quick disconnect screw terminals for easy installation
- 1RU chassis design
- Bypass video and audio inputs
- DTMF cue tones for local ad insertion
- 10/100 BaseT Ethernet port for SNMP monitoring and control

- DSM-CC Encapsulated IP data output
- Dedicated video diagnostics output
- Over-the-air software download capability

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

The new DSR-4550 IRD from Motorola brings the latest technology advances from a recognized leader in satellite program delivery. Building on the DigiCipher II platform, the DSR-4550 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-4550 is designed to deliver excellent video and audio performance.

The DSR-4550 supports digital component video (SDI). The SDI output provides 2 channels of embedded audio to allow easy routing of video and audio through a cable facility. The discrete AES audio outputs can be used in combination with the SDI video without the need for audio de-embedding equipment. Dolby digital audio pass-through is available on both the SDI embedded audio and the discrete AES audio outputs.

Equipped with both ASI input/output and Gig-E output, the DSR-4550 is ready to connect easily to the rest of your headend equipment. The Gig-E port can be used to output a decrypted transport stream as well as encapsulated IP data while the 10/100 Base-T Ethernet connection allows for remote command/control capabilities via SNMP. With advanced modulation support, the DSR-4550 also supports 8PSKTurbo modulation.

#### SPECIFICATION SHEET

DSR-4550

#### **TECHNICAL SPECIFICATIONS**

#### **L-Band Input**

Input Frequency: 950 - 2150 MHz

Input Impedance:  $75 \Omega$ 

Input Connectors: Eight (8) 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, QPSK, 8PSK turbocode

QPSK Symbol Rates: 3.25, 4.88, 7.32, 9.76, 11.71, 14.63, 19.51,

29.27 Msps

8PSK Turbo Symbol Rates: 1 to 30 Msps variable

QSPK FEC Rates: 5/11 (19.51 & 29.27 Msps only)

1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8

8SPK Turbo FEC Rates: 2/3 (1.92), 3/4 (2.05), 3/4 (2.11), 3/4 (2.19),

5/6 (2.30), 8/9 (2.40)

#### **Composite Video**

Frequency Response (NTSC):  $\pm 0.9$  dB, 1kHz - 4.2 MHz Frequency Response (PAL):  $\pm 0.9$  dB, 1kHz - 4.8 MHz

Signal/Noise Ratio: 57 dB (min)

Differential Gain: 4.5% p-p (max) (10% to 90% APL)

Difference Phase: 4.5 deg. (max)

Output Impedance:  $75 \Omega$ 

Output Level:  $1.0 \text{ V p-p} \pm 10\%$ 

#### **Audio**

Output: 2 stereo pair or 4 mono

Output Level:  $\pm 16.0 \text{ dBm}, \pm 1.0 \text{ dB} \text{ into } 600 \Omega \text{ balanced}$ 

load adjustable (0 to -15 dB)

Frequency Response: ±1.0 dB, 20 Hz to 20 kHz Total Harmonic Distortion: 0.4% or better at 1kHz

Signal/Noise Ratio: 85 dB or better at 1 kHz RE: + 16 dBm,

measured at 20 Hz to 20 kHz

Isolation, L/R: 80 dB at 1 kHz

Impedance: 50  $\Omega$ 

Connector: Quick disconnect screw terminal

#### SDI

Output Level: 800 mV, ±80 mV

Output Impedance:  $75 \Omega$ 

Standard: SMPTE-259M

Connector: BNC

### **Digital Audio**

Standard: AES
Connector: BNC
Number of Channels: 2

#### **Ethernet Output**

Formats: 10/100BaseT and Gig-E

Connectors: Two (2) RJ-45

#### **ASI Input/Output**

Format: Asynchronous serial interface

Transmission: Data byte and packet Standard: CENELEC EN 50083-9

Connector: BNC

# **Cue Tones**

Signal Type: Differential output

Signal Level:  $0 \text{ dBm}, \pm 3 \text{ dB (600 }\Omega)$ /tone Connector: Quick disconnect screw terminal

#### **Contact Closures**

Number of Closures: 4 (1 alarm)
Type: Form C

## **Physical**

 Width:
 18.9" (48cm)

 Depth:
 18.11" (46cm)

 Height:
 1.65" (4.2cm)

 Weight:
 12 lb (5kg) approx

Power Input: 100-240 VAC, 50-60Hz, 60 W

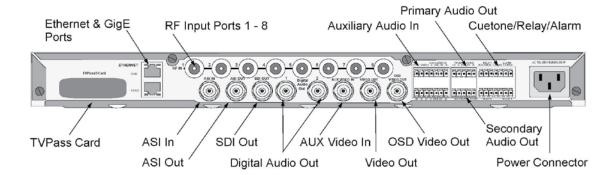
Operating Temperature: 0 to 40C

Humidity: 95%, relative maximum

# Other

Limited Warranty: One year

Compliance: UL listed/approved





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