DSR-4550

COMMERCIAL INTEGRATED RECEIVER/ DECODER

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/AMOL-II, 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.
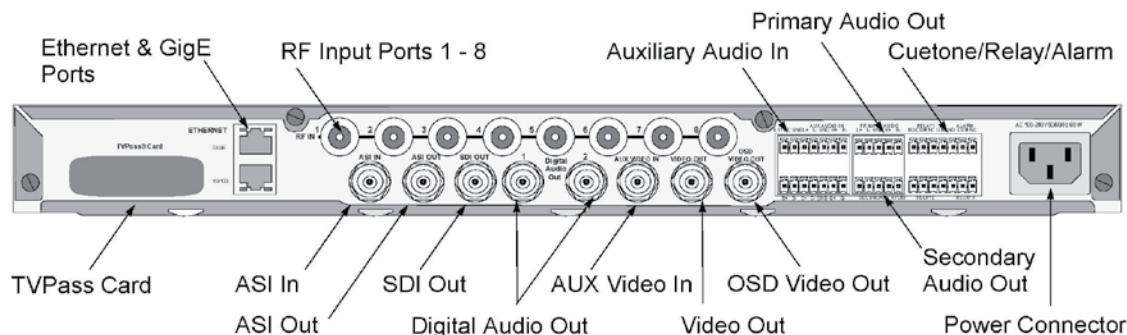
The DSR-4550 supports digital component video (SDI). The SDI output provides 2 channels of embedded audio to allow easy routing of video and audio through a cable facility. The discrete AES audio outputs can be used in combination with the SDI video without the need for audio de-embedding equipment. 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 8PSK Turbo modulation.

TECHNICAL SPECIFICATIONS

L-Band Input

Input Frequency:	950 - 2150 MHz
Input Impedance:	75 Ω
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):	±0.9 dB, 1kHz - 4.2 MHz
Frequency Response (PAL):	±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 Ω
Output Level:	1.0 V p-p ± 10%

Audio

Output:	2 stereo pair or 4 mono
Output Level:	±16.0 dBm, ±1.0 dB into 600 Ω 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 Ω
Connector:	Quick disconnect screw terminal

SDI

Output Level:	800 mV, ±80 mV
Output Impedance:	75 Ω
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 dBm, ± 3 dB (600 Ω)/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

Rear panel diagram: Ethernet & GigE Ports, RF Input Ports 1 - 8, Auxiliary Audio In, Primary Audio Out, Cuetone/Relay/Alarm, TVPass Card, ASI In, ASI Out, SDI Out, Digital Audio Out, AUX Video In, Video Out, OSD Video Out, Secondary Audio Out, Power Connector

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Advanced Media Technologies,®Inc. · 3150 SW 15th Street Deerfield Beach, FL 33442
(888) 293-5856 · (954) 427-5711 · Fax (954) 427-9688