

DSR-4410MD

SATELLITE MULTIPLEX DECRYPTER





Commercial Satellite Multiplex Decrypter for Demodulation and Multi-Service Decryption of Satellite Signals

Highlights Include:

- DigiCipher® II conditional access control
- Concurrent decryption of up to 64 services, each service may include video, multiple audio channels and data
- Stackable 1RU chassis design
- Dual L-Band input ports
- Supports both C-band and Ku-band
- Advanced modulation support for 8PSK Turbo and DVB-S2
- ASI Input
- Dual ASI and Gig-E transport output with selectable rates
- 10/100 Base T Ethernet port for SNMP monitoring and control
- IP datacasting output
- Outputs NTSC video and analog audio for local monitoring
- Form-C relay for fault signaling
- Background software download capabilities

The Motorola DSR-4410MD is a powerful digital headend product, capable of simultaneous decryption of up to 64 services. With advanced modulation support, the DSR-4410MD can output a full transport multiplex with both MPEG-2 and/or MPEG-4 services at an information rate of up to 160 Mbps.

The Motorola DSR-4410MD comes equipped with industry standard interfaces such as dual ASI outputs that enable seamless connection to head-end equipment. The DSR-4410MD also accommodates the current trend for distributing MPEG-2 transport streams over Gigabit Ethernet interfaces throughout digital headends.

Packaged in a 1RU chassis, the DSR-4410MD offers local monitoring of a single service and the ability to step through the authorization and encryption state of each service. In the event of a transport stream fault, or loss of authorization for any of the provided services, the DSR-4410MD will trigger an alarm indication for the user.



SPECIFICATION SHEET

DSR-4410MD

TECHNICAL SPECIFICATIONS

L-Band Input

Input Signal Level: (-)65 dBm to (-)25 dBm

Input Frequency: 950 - 2150 MHz

Input Impedance: 75Ω

Input Connectors: Two (2) F-type

LNB Power Out

F-Connector: 16V DC min/450 mA

Digital Processing

Modulation Modes: OQPSK, QPSK, 8PSK turbocodes, DVB-S2

Symbol Rates: 3.25 to 29.27 Msps (QPSK)

1 to 30 Msps (8PSK turbocodes)

5 to 30 Msps (DVB-S2)

QSPK FEC Rates: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8 (@3.25 to

29.27 Msps), 5/11 (@19.51 to 29.27 Msps) Rates:

8SPK (turbo) FEC Rates: 2/3 (1.9), 3/4 (2.05), 3/4 (2.11), 3/4 (2.19),

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

DVB-S2 FEC Rates: 3/5, 2/3, 5/6, 8/9, 9/10

Eb/No: 4.0 db @ 19.5 Msps (FEC=3/4)

Video

Frequency Response (NTSC): ± 0.75 dB, p-p, 1kHz - 4.2 MHz Frequency Response (PAL): ± 0.9 dB, p-p, 1kHz - 5.5 MHz

Signal/Noise Ratio: 57 dB (min)

Differential Gain: 4.0% p-p (max)

Difference Phase: 4.0 deg. p-p (max)

Output Impedance: 75Ω

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

Audio

Output: 2 stereo pair or 2 mono

Output Level: $\pm 18.0 \text{ dBm}$, $\pm 1.0 \text{ dB}$ into 600Ω balanced

load, adjustable (0 to -15 dB)

Frequency Response: ±1.3 dB, 20 Hz to 20 kHz
Total Harmonic Distortion: 0.25% or better at 1kHz
Signal/Noise Ratio: 85 dB or better at 1 kHz

Isolation, L/R: 80 dB at 1 kHz Impedance: 600Ω

Connector: Quick disconnect screw terminal

Data

Ethernet 10/100 Base T
Output: 1
Gig-E 10/100/1000 Base T
Output: 1

ASI Input/Output

Output: Dual ASI

Format: Asynchronous serial interface

Transport Stream Data

Rates: 54 Mbps, 81 Mbps, 160 Mbps

Standard: CENELEC EN 50083-9

Gig-E Output

Output: 10/100/1000 Base T Ethernet

Transport Stream Data

Rates: 54 Mbps, 81 Mbps, 160 Mbps

Decryption

Number of Services: up to 64 independently encrypted

services

Cue Tones

Signal Type: Differential output Signal Level: -3 dBm, $(600 \Omega)/\text{tone min}$ Connector: Quick disconnect screw terminal

Alarm Relay

Form C: Quick disconnect screw terminal

Physical

 Width:
 18.9" (48cm)

 Depth:
 18.11" (46cm)

 Height:
 1.65" (4.2cm)

 Weight:
 11 lb (5kg) approx

Power Input: 90-250 VAC, 47-63Hz, 40 W max

Operating Temperature: 0 to 40C ambient Humidity: 95%, relative maximum

Other

Limited Warranty: One year

Compliance: UL listed/approved



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