DSR-4500X
Professional Satellite Receiver

MOTOROLA
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Advanced DigiCipher® II professional satellite receiver for the expanding needs of cable programmers and operators
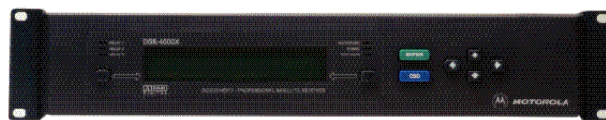
As networks expand in complexity extended IRD control becomes crucial to successful operations. The Motorola DSR-4500X combines advanced control capabilities with the proven reliability of a Motorola full featured integrated receiver/decoder. The Motorola DSR-4500X features extensive control functionality from both the uplink and headend. The DSR-4500X accepts control commands from the uplink for channel changes, port configuration and installation parameters. From the head-end, full control of the Motorola DSR-4500X is available via an SNMP agent on the Ethernet port. The Ethernet port also supports the programmer's advanced network functions by outputing multicast Internet Protocol data from the uplink.

Disaster recovery and network migration are effectively implemented by utilizing multiple RF input ports, a variable front-end tuner, the bypass mode of operation and the ability to receive clear analog programming in addition to digital signals.

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

HIGHLIGHTS INCLUDE:

- 8 RF inputs
- 10/100 BaseT Ethernet port
- ASI and DHEI outputs
- MPEG-2 Main Level@Main Profile and DigiCipher® II digital video
- Variable symbol rate from 3.25 Msps to 29.27 Msps
- Supports maximum 40.46 Mbps throughput for *MegaPipe* configurations
- Dolby® brand AC-3® audio processing
- VBI reinsertion SID/AMOL-I & II, NABTS and closed caption
- 4-line front panel
- Separate video output for diagnostic on-screen-display (OSD)
- DigiCipher II conditional access control
- Quick disconnect screw terminals for easy installation of audio and data
- Bypass video and audio inputs
- DTMF cue tones for local ad insertion
- 3 sets of contact closures (1 set can be used for summary alarm)

GENERAL SPECIFICATIONS

Input

Input Signal Level: (-)65 dBm to (-)25 dBm
Input Frequency: 950 - 2150 MHz
Input Impedance: 75 ?
Input Connectors: Eight (8) F-type
LNB Power Out
F-Connectors: 16V DC min/250 mA (port 1 only)
Port-to-Port
Isolation: 40 dBm (minimum)

Digital 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
Forward Error
Correction: 3.25 to 14.63 Msps (combined) @ 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8
19.51 (split/combined) and 29.27 (split) Msps @5/11, 1/2, 3/5, 3/4, 4/5, 5/6, 7/8
29.27 (combined)Msps @ 5/11, 1/2, 3/5, 2/3, 3/4

Video

Frequency Response
(NTSC): ±0.75 dB p-p, 1 kHz - 4.2 MHz
Frequency Response
(PAL): ±0.75 dB p-p, 1 kHz - 5.5 MHz
Signal/Noise: 57 dB (min)
Differential Gain: 4.5% p-p (max)
Difference Phase: 4.5 deg. p-p (max)
Output Impedance: 75 ?
Output Level: 1 V p-p

Audio

Output: 2 stereo pair or 4 mono
Output Level: ±16 dBm, ±1 dB into 600 ? balanced load, adjustable (0 to (-)15 dB)
Frequency
Response: ±1 dB, 20 Hz to 20 kHz
Total Harmonic
Distortion: 0.25% or better at 1 kHz
Signal/Noise Ratio: 85 dB at 1 kHz
Isolation, L/R: 80 dB at 1 kHz
Impedance: 600 ?
Connector: Quick disconnect screw terminal

Data

Asynchronous
Data Rate: 1.2, 2.4, 4.8, 9.6 and 19.2 kbps
Isochronous
Data Rate: 19.2 kbps - 2.048 Mbps, 3, 4.5, 9 Mbps

ASI Output

Format: Asynchronous serial interface
Transmission: Data burst
Standard: CENELEC EN 50083-9
Connector: BNC

DHEI Output

Format: Differential ECL
Packet Clock Rate: 29.26 Mbps
Connector: DSUB-15

Cue Tones

Signal Type: Differential output
Signal Level: (-)10 dB min (600?)/tone
Connector: Quick disconnect screw terminal

Contact Closures

Closures: 3 (1 summary alarm)
Type: Form C

Ethernet

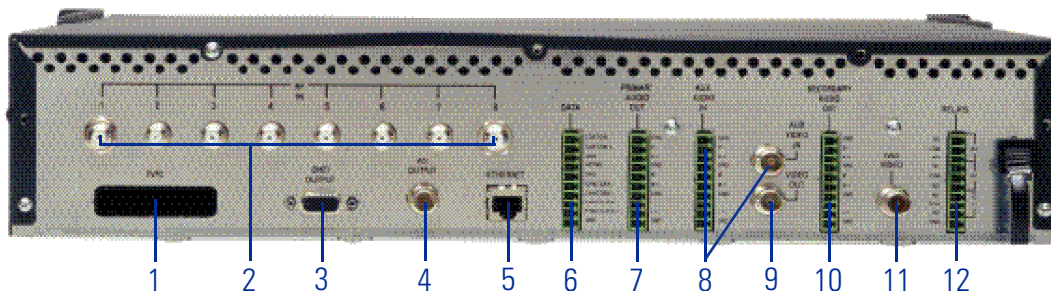Connector: RJ-45
Format: 10/100BaseT
Max Throughput: 9.0 Mbps

Physical

Operating
Temperature: 0 to 40°C (ambient)
Humidity: 5 to 95% (relative, non-condensing)
Dimensions: 78cm(W) x 46cm(D) x 8.9cm(H)
Weight: 8.0 kg (approx.)
Power Input: 90-250 VAC, 47-63 H, 55 W (max)

Other

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

INPUTS/OUTPUTS

1....... TVPass® Card Slot
2....... RF Input Ports
3....... DHEI Port
4....... ASI Port
5....... Ethernet
6....... Data
7....... Primary Audio Out
8....... Aux Video & Audio In
9...... Primary Video Out
10..... Secondary Audio Out
11..... Video Out (with OSD)
12..... Relays

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