The new DSR-4402X IRD from Motorola brings the latest technology advances from the recognized leader in satellite program delivery. Building on the DigiCipher® II platform, the DSR-4402X IRD is affordable and easy to use. Start with the new packaging design that fits in a standard 19" relay rack and requires only a single rack unit of space. The DSR-4402X is designed to deliver outstanding video and audio performance in either DigiCipher II or DVB modes. 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-4402X 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-4402X. Now equipped with DVB-ASI, the DSR-4402X is ready to connect to the rest of your head-end equipment.

- MPEG-2 Main Level@Main Profile
- DigiCipher II and DVB modes of operation
- 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
- 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 output for easy connection to digital cable headend products
## DSR-4402X Professional Satellite Receiver Specifications

### L-BAND INPUT
- **Input Frequency**: 950 to 2150 MHz
- **Input Impedance**: 75Ω
- **Input Connectors**: Two F-type
- **LNB Power Out F-Connector**: 16V DC min/450 mA
- **Port to Port Isolation**: 40 dB (minimum)

### DIGICIPHER II PROCESSING
- **Modulation Modes**: QPSK and QPSK
- **Symbol Rates**: 3.25, 4.88, 7.32, 9.76, 11.71, 14.63, 19.51, 29.27 Mbps
- **Forward Error Correction**: @ 3.25 to 14.63 Mbps = 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8
  - @ 19.51 (split/combined) and 29.27 (split) Mbps = 5/11, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8
  - @ 29.27 (combined) Mbps = 5/11, 1/2, 3/5, 2/3, 3/4
- **Eb/No**: 4.0 dB @ 19.5 Mbps (FEC=3/4)

### DVB PROCESSING
- **Modulation Mode**: QPSK
- **Symbol Rate Range**: 3.25 to 30 Mbps
- **Forward Error Correction**: 1/2, 2/3, 3/4, 4/5, 7/8

### VIDEO
- **Frequency Response (NTSC)**: ± 1.0 dB, 1 kHz - 4.2 MHz
- **Frequency Response (PAL)**: ± 1.0 dB, 1 kHz - 5.5 MHz
- **Signal/Noise Ratio**: 57 dB min
- **Differential Gain**: 5% max
- **Differential Phase**: 5 deg. max
- **Output Impedance**: 75Ω
- **Output Level**: 1.0 V p-p

### AUDIO
- **Outputs**: 2 stereo pairs or 4 mono
- **Output Level**: ± 16.0 dBm, ± 1.0 dB into 600 Ω balanced attenuator, adjustable (0 to -15 dB)
- **Frequency Response**: ± 1.3 dB, 20 Hz to 20 kHz
- **Total Harmonic Distortion**: 0.3% or better at 1 kHz
- **Signal/Noise Ratio**: 85 dB or better at 1 kHz
- **Isolation, L/R**: 80 dB at 1 kHz
- **Impedance**: 600 Ω
- **Connector**: Quick disconnect screw terminals

### DATA
- **Isochronous Data Rate**: 19.2 kbps - 2.048 Mbps, 3.0, 4.5 and 9.0 Mbps

### ASI OUTPUT
- **Format**: Asynchronous Serial Interface
- **Transmission**: Data Burst
- **Standard**: CENELEC EN 50083-9
- **Connector**: BNC

### CUE TONES
- **Signal Type**: Differential output
- **Signal Level**: @ 3 dBm minimum (600 Ω)/tone
- **Connector**: Quick disconnect screw terminal

### ALARM CONTACT CLOSURE
- **Number of Closures**: 1
- **Type**: Form C

### PHYSICAL ENVIRONMENT
- **Operating Temperature**: 0º to 40º C
- **Humidity**: 95%, relative maximum
- **Dimensions**: 48 cm (W) x 46 cm (D) x 4.2 cm (H)
- **Weight**: Approx. 5.0 kg
- **Power Input**: 90-250 VAC, 47-63 H, 25 W

### OTHER
- **Limited Warranty**: One year
- **UL/TUV/CE**: Listed/approved

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Features and functions subject to change without notice.

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