



DSR470 Digital Signal Receiver

Basic one-way receiver for digital, analog basic, and pay-per-view channels.

The Motorola DSR470 can deliver digital satellite feeds with local analog service.

The Motorola DSR470 digital satellite receiver provides interactive digital cable programming through a unique satellite delivery method. By converting satellite signals to cable-friendly methods of transmitting programming, the DSR470 gives you quick access to up to 200 channels of digital and analog programming over a single coaxial cable.

To facilitate this type of digital system, the DSR470 accepts program signals, authorization, and control commands like a satellite receiver, but is installed at the end of a coaxial cable. Using its unique design, the DSR470 offers a wide range of viewing options—the combined offerings of analog cable and digital satellite programming to cable subscribers. Additionally, Motorola has developed a unified digital/analog on-screen display so the viewer can seamlessly scan all available channels.

Check with your local cable service provider for availability of this product in your area.

BENEFITS

- Cable and satellite technologies integrated and delivered in a single digital entertainment receiver
- Integrated program guide for seamless transition between analog and digital channels
- Pay-Per-View (PPV) for movies, sports, and special events
- Dolby® AC-3 surround sound when available on satellite signal
- Parental controls to block programming and limit access to underage viewers
- Optional 4:1 remote control available (for DSR470, TV, VCR/DVD, and stereo)

CONNECTEDMOTO



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DSR470 Digital Signal Receiver



Technical Specifications

GENERAL

ENVIRONMENT

Temperature	0° to -40°C (ambient)
Humidity	95% relative

SPECIFICATIONS

WidthxHeightxDepth	13.6 x 2.5 x 15
Weight	11 lbs
Power Input	115 V ± 10% AC, 60 Hz (nominal)
	25 W (maximum)

Regulatory Compliance	UL listed, CSA certified
Limited Warranty	1 year

CABLE INPUT

Frequency	54 to 860 MHz
Impedance	75 W
Analog Input Level	0 dBmV to +15 dBmV
Digital Input Level	-18 dBmV to +5 dBmV (64 QAM)
	-12 dBmV to +5 dBmV (256 QAM)
Noise Figure @ 10 dBm input	<10 dBmV

DIGITAL PROCESSING

Demodulation	64 and 256 QAM
Symbol Rates	5.056941 (64 QAM)
	4.966862 and 5.360537 (256 QAM)

VHF OUTPUT

Impedance	75 W
Channel	3 and 4
Level, Video	66 dBuV ± 3 dB from VHF modulator
Audio	Mono, SAP (menu selected)

VIDEO

Output Level	1 V p-p into 75 W
De-emphasis	525 line CCIR Rec. 405-1

AUDIO

Modes	Digital stereo (stereo or surround), S/PDIF for AC-3 where available, analog stereo (BTSC)
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IR REMOTE CONTROL

Operational Range	35 feet
	± 22.5° from center (horizontal axis)
	± 13.0° from center (vertical axis)

UHF REMOTE CONTROL

Operational Range	150-foot radius from unit
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ASYNCHRONOUS DATA

Data Rate	1200, 2400, 4800, 9600, and 19200 bps
Format	Asynchronous 10-bit characters transmitted LSB first
Mode	Simplex
Interface	RS-232 voltages and impedance levels
Connector	Mini phone

HIGH-SPEED DATA

Data Rate	29.27 Mbps ± 20 ppm
Format	AMI encoded with 8% minimum transition density
Multiplex	MPEG-2 compatible
Signal Level	0.5 V p-p ± 20% AC coupled into 110 W
Connector	DB-9

MODEM REPORTBACK INTERFACE

Standard	Bell 212A
Data Rate	1200 baud
Connector	RJ-11 telco plug

DIGICIPHER® II AUDIO (ANALOG)

Stereo Outputs	2
Impedance	110 W maximum
Output Level	5.66 V p-p ± 10% into 2 kW load with 0 dBFS digital input

Frequency Response	B p-1.0 Dp, 20 Hz to 20 kHz
THD	0.3% maximum from 20 Hz to 20 kHz referenced to +10 dBm encoder

SNR	85 dB minimum
Stereo Channel Isolation	60 dB minimum

DIGICIPHER® II AUDIO (DIGITAL)

Stereo Outputs	1
Impedance	75 W
Signal Level	0.5 p-p ± 20% into 75 W load
Connector	RCA
Format	Dolby AC3 or PCM

DIGICIPHER® II COMPOSITE VIDEO

Outline Level	1.0 C p-p ± 10%, sync tip to reference white
Frequency Response (NTSC)	± 1.0 dB, 1 kHz to 4.2 MHz
C-L Delay Inequality	± 50 nsec
Differential Gain	5.0% p-p maximum (10-90% APL)
Differential Phase	5.0° p-p maximum (10-90% APL)
Luminance SNR	57 dB

CABLE VIDEO (ANALOG)

Frequency Response	+1.58 to -1.94 dB, 0.5 to 3.0 MHz
Differential Gain	8.0% p-p maximum
Differential Phase	8.0° p-p maximum
S/N	49 dB minimum @ 6 dBmV (unified weighing 100 kHz to 4.2 MHz)

CABLE AUDIO (ANALOG)

Frequency Response	± 3.0 dB, 50 Hz to 10 kHz
Harmonic Distortion	2.0% maximum @ 1 kHz

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