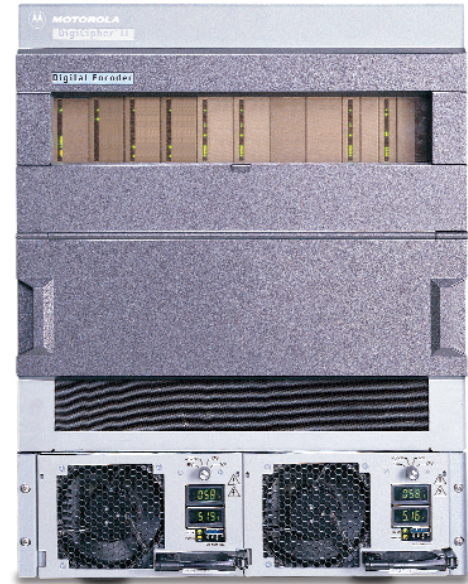


Advanced MPEG-2/ATSC Multi-Channel Digital Encoder.

The DigiCipher® II multi-channel encoder (MCE) is Motorola's standard definition encoder to support ATSC/DigiCipher II networks. The MCE is ideal for satellite, broadcast, and cable applications. It incorporates sophisticated video processing algorithms, system control software, and an optional comprehensive access control system.

The multi-channel chassis contains all of the input/output connections necessary for converting, full bandwidth CCIR601 and data into an MPEG-2 compliant bit stream for up to eight channels. Each channel has one video input, three audio stereo pairs (or six mono), one asynchronous data channel, one auxiliary (synchronous) data channel, and one isochronous (high speed) data channel. The MCE supports outputs of DVB-ASI, DS3 and 70MHz.

The DigiCipher II system is designed to support multiple combinations of fixed rate, statistical multiplexed (statmux) and/or mixed modes. Within each statmuxed group, operators can establish upper and lower limits to ensure a desired picture quality.



- *Multi-Channel Support:* Supports 3 cascaded chassis for up to 24 television services and 72 audio channels
- *Full Audio Support:* Dolby® brand AC-3®, 5.1 channel audio supported as pre-compressed inputs and on-board processing of AC-3 stereo audio. Three stereo pairs per television service
- *Emmy Award-Winning Security:* DigiCipher II access control and anti-piracy technology
- *ATSC Compliant:* Fully compliant with ATSC standard
- *DigiCipher II System Design:* Cascades with high definition encoder, providing seamless HD/SD operation
- *Flexible Redundancy Architecture:* Automatic fault detection and switchover using internal input routers

DIGICIPHER® II MULTI-CHANNEL ENCODER SPECIFICATIONS

VIDEO INPUTS

Serial Digital Component.....	ITU-R BT .601/(SMPTE 259M/125M)
Digital Composite.....	NTSC-525 (SMPTE 259M/244M) with or without embedded
Impedance.....	75 Ω

AC-3, 5.1 SURROUND AUDIO

Digital.....	AES/EBU
Number of Precompressed.....	3 streams
Number of Audio Streams.....	3 pairs
Impedance.....	110 Ω
Connector.....	3-pin lemo

SYNCHRONOUS DATA CHANNEL

Data Rate.....	19.2 kbps - 9 Mbps
Mode.....	Simplex
Interface.....	RS-422A
Connector.....	DB 37 male

ASYNCHRONOUS DATA CHANNEL

Data Rate.....	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19.2 kbps
Mode.....	Simplex
Interface.....	RS-232D
Connector.....	25-pin, D-Sub

AUXILIARY DATA CHANNEL

Data Rate.....	19.2 kbps - 128 kbps
Interface.....	RS-422/485
Connector.....	37-pin, D-Sub

MODULATOR

Modulation Format.....	QPSK and OQPSK
Symbol Rate.....	1.83, 2.44, 3.25, 4.88, 7.32, 9.76, 11.71, 14.63, 19.51, 29.27 Msp/s
Forward Error Correction.....	5/11, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 7/8
Output Frequency.....	70 MHz ±18 MHz in 125 kHz steps
Output Level.....	(-)5 dBm to (-)15 dBm in 0.5 dB steps
Data Format.....	NRZ
Impedance.....	75 Ω
Spurious Signal Output.....	-60 dBc
Return Loss.....	30 dB

OUTPUTS

Bit Rate.....	up to 40.46 Mbps (in combine mode) up to 47.20 Mbps (in split mode) up to 19.28 Mbps (SMPTE 310M) up to 36.00 Mbps (ATM AAL-5)
Interface.....	SMPTE310/ASI/DS3A/DS3B/DHEI
IF Interface.....	Monitor and IF out
Form-C.....	25-pin, D-sub

ENCODER CHASSIS

Dimensions.....	48.9cm (H) x 48.3cm (W) x 71.1cm (D)
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REMOTE SATELLITE MODULATOR

Dimensions.....	8.9cm (H) x 48.3cm (W) x 71.1cm (D)
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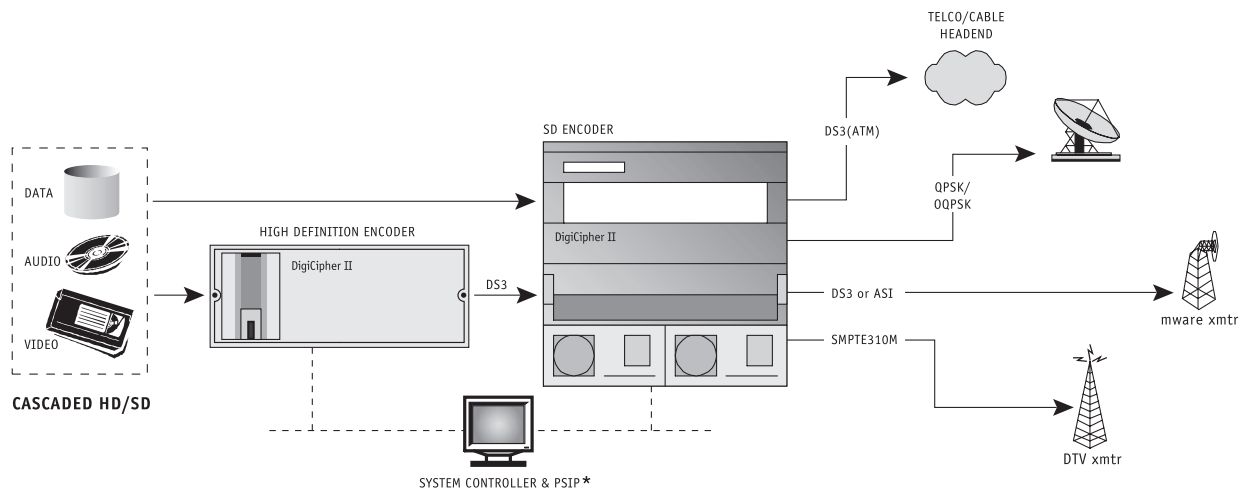
POWER SUPPLY

AC Line Input.....	180 - 264 VAC
Dimensions.....	13.4cm (H) x 48.3cm (W) x 76.2cm (D)

OTHER

Limited Warranty.....	One year
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NETWORK DIAGRAM



*PSIP applies to terrestrial and cable applications



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Features and functions subject to change without notice.

6450 Sequence Drive, San Diego, CA 92121
 858/455-1500 www.motorola.com/broadband
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