



SE-3000

MPEG-2 High Definition Encoder



High Quality High Definition Encoder for Programmer Satellite Distribution

Highlights Include:

- MPEG-2 Main Profile, High level encoding
- 1 RU form factor
- Supports 1080i and 720p video resolutions
- Video bit rates of 6 Mbps to 40 Mbps
- Constant Bit Rate (CBR) or Statistical Multiplexing (when using Motorola TMX-2010/BNC)
- N:M Encoder Redundancy (when using Motorola TMX-2010/BNC)
- Web Browser or Motorola BNC for Control/Monitoring
- HD-SDI input, per SMPTE-292
- Dolby® Digital AC3, 5.1 channel audio supported as pre-compressed
- Dolby® Digital AC3 stereo pair supported as pre-compressed or discrete
- Support for EIA-708 Closed Captioning, via SMPTE-334 input
- NTP Support

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

The Television Industry is transitioning to High Definition content. With this transition comes the demand for high-definition in encoding in compact, future-proofed platforms. The SE-3000 MPEG-2 High Definition Encoder, in a 1 RU form factor, meets this demand, and enables programmers to transmit sharp, high-definition video, with Dolby Digital 5.1 audio.

Designed for integrated use with the Motorola Modular Uplink System, but also useable as a stand-alone encoder, the SE-3000 provides a complete solution for MPEG-2 High Definition Encoding. When used with the Modular Uplink System, the SE-3000 supports N:M encoder redundancy, MPEG-2 HD Stat Mux, and monitoring via the BNC. As a stand-alone encoder, the SE-3000 provides high-performance MPEG-2 HD encoding, and both ASI and IP output interfaces, enabling use in both ASI, as well as IP networks.

Motorola's pioneering work on digital high definition television, and significant history in encoder product development, are reflected in the high performance and feature set of the SE-3000. With the SE-3000, programmers will not only meet the current need for providing more HD content, but also future-proof their networks with the built-in support for the Motorola Modular Uplink System.

SPECIFICATION SHEET

SE-3000

TECHNICAL SPECIFICATIONS		VBI Support	
Video Encoding Adaptive field/frame processing Detelecine processing (inverse 3:2 pull-down) Temporal/Spatial filtering Test pattern Special event processing / adaptive Group of Pictures (GOP) Selectable GOP length: 15, 30, 45, or 60 frames Open GOP/Open/Closed GOP HD resolutions: 1920 x1080 Interlaced 1280 x720 Progressive HD rates: 29.97 and 30 frames-per-second (FPS) Interlaced 59.94 and 60 frames-per-second (FPS) Progressive		EIA-708 Closed Caption carriage via SMPTE-334 input Carriage of caption data per Advanced Television Systems Committee (ATSC) -A53	
Audio Encoding Mode: Dolby Digital AC-3 audio standard Audio output rates: 128, 256, and 384 kbps Inputs: 2 Stereo AES/EBU digital inputs 2 HD-SDI-embedded inputs Other: Pre-compressed audio data from AES inputs Pre-compressed data embedded in video, up to 640kbps Auto lip-synchronization per SMPTE-339 Stereo encoding 48k input sampling rates 1 kHz audio test tone		Outputs ASI Primary Outputs (x2) Format: MPEG-2 transport stream per ISO/EIA 13818-1 Interface: DVB-ASI per CENELEC EN 50083-9 Connector: BNC, Female ASI Monitor Output (x1) Format: MPEG-2 transport stream per ISO/EIA 13818-1 Interface: DVB-ASI per CENELEC EN 50083-9 Connector: BNC, Female Ethernet Primary Outputs (x2) Format: MPEG-2 transport stream per ISO/EIA 13818-1, over UDP/IP Interface: 100/1000BaseT Ethernet, per IEEE-802.3 Connector: RJ-45 Output Transport Stream Format: MPEG-2 transport stream per ISO/EIA 13818-1 Rate: Configurable bit rate, up to 45Mbps	
Transport Stream Compliance Carriage of components over MPEG-2 transport stream per ISO/IEC 13818 part 1 Single Program Transport Stream (SPTS) over ASI and UDP/IP MPEG Program Specific Information (PSI) support: Program Association Table (PAT) Program Map Table (PMT) PID		Control Interfaces HTTP GUI/SNMP over IP Interface: 10/100BaseT Ethernet, per IEEE-802.3 Connector: RJ-45 Serial Asynchronous RS-232 Connector: RS-232, DSUB9, Male Format: 9600 Baud, 1 Start bit, 8 data bits, 1 Stop bit, No parity Form_C Relay Contact Connector: Alarm output 3-pin Terminal Block Contact Rating: 30VDC / 3 VA/ 0.5 ADC Maximum	
Control and Status Front Panel status display Built-in Web server and Web browser graphical user interface (GUI) SNMP Heartbeat Outputs SNMP Control FORM_C Relay Fault/alarm indication BootP and Trivial File Transfer Protocol (TFTP) support RS-232 front panel maintenance port		Physical Width: 19.3" (49cm) Depth: 22.18" (56.3cm) Height: 1RU, 1.75" (5cm) Weight: 18 lb Power: Dual AC input 115-230VAC, 50-60 Hz, each input Power Consumption: 100W, 1A Maximum Power Connector: EIC 320, Male (x2) Temperature: 5 to 40 C Operating Humidity: 0 to 85%	
Video/Audio Inputs SDI Primary Input (x1) Format: HD-SDI per SMPTE-292 Connector: BNC 75-Ohm, Female (x1) Optional Audio Format: AES/EBU Digital Audio (x 1 pair) Connector: BNC 75-Ohm, Female (x2), unbalanced		Other Limited Warranty: One year Compliance: EN55022: 2006, Class A EN55024: 1998/A1: 2001/A2:2003 EN61000-3 EN60950-1: 2000	



MOTOROLA

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