



SE-6501/6501R

Advanced Multi-Format Video Encoder



High Performance MPEG-4 AVC Standard Definition Video Processing Platform

Highlights Include:

- A real-time, full resolution standard definition AVC video encoder
- Support for MPEG-4 AVC High Profile @ Level 3.1
- Multi-pass CBR and VBR encoding
- Input flexibility
 - Baseband SDI/HD-SDI
 - MPEG-2 and MPEG-4 AVC transport over UDP/IP or ASI
 - Off air ATSC RF input (on SE-6501R)
- Low power, 1 RU chassis
- Integrated low resolution proxy (PIP)
- Complementary video pre-processing features
 - Motion Compensated Temporal Filter
 - Adaptive Detail Preservation (ADP)
 - 3D Noise Reduction (3DNR)
- Constrained Fidelity (CF-CBR) capped VBR mode
- Statistical multiplexing capability
- Microsoft® Mediaroom™ certified
- Four independent GigE Ethernet ports
- Ad insertion support
- Digital Turn Around for MPEG-2 inputs
- Down conversion HD to SD (AFD per S2016-1-2007)
- Audio transcoding
- SNMP interface with published MIB
- Web browser interface

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

The SE-6501/6501R high performance video processing platform supports MPEG-4 standard definition encoding and transcoding for satellite, cable and IPTV applications. The unit also provides an optional software upgrade to add support for high definition (HD).

The optional dual power supplies reinforce that this platform offers ultimate flexibility for 24/7 delivery operations. Flexible input options simplify headend architectures, reduce box count, increase reliability as well as reduce capital and operational costs. For multi program transport applications there is support for StatmuxIP, Motorola's statistical multiplexing solution for both headend and distributed applications.

Advanced pre-processing support complements the advanced compression algorithms to deliver exceptional video quality. The perceptual video processing (PVP) technology utilizes the patented IPeG™ (Integrated Perceptual Guide) to optimally apply noise reduction and detail preservation. The perceptual mapping algorithm effectively steers the powerful filtering technology to remove random, quantization and impulse noise while conserving the detail that the eye cares most about. The net result is the delivery of better pictures at lower bit rates.

SPECIFICATION SHEET

SE-6501/6501R

TECHNICAL SPECIFICATIONS		Compressed Stream Output	
MPEG-4 Features		Ethernet:	4 Gigabit, RJ-45
MPEG-4 Profile:	High Profile Low resolution proxy (PIP)	IP:	Unicast or Multicast Main plus PIP on SPTS MPEG-2 / UDP / IP
Motion Estimation:	Supports P, B & reference B frames 16x16 and 8x8 block sizes 1/4 Pixel motion estimation Weighted prediction	MPEG-2 transport output:	MPEG-2 Transport Stream over UDP / IP SCTE35 ad insertion splice points from SCTE104 tcp or VANC inputs Digital turnaround for compressed inputs
Rate Control:	Multi pass encoding with CBR, VBR, and CF-CBR rate control Dynamic GOP Selectable GOP structure	Control and Status	
Coding:	CABAC entropy coding	Type:	Browser interface for single unit control SNMPv2 with published MIB Linux operating system
Other:	De-blocking filter	Physical	
Video Processing		Width:	18.9" (48cm)
Formats:	625i/50; 525i/29.97 (SD)	Depth:	15.5" (39.4cm)
Video Pre-Processing:	Motion Compensated Temporal Filter PVP/ADP Adaptive Detail Preservation PVP/3DNR Advanced Spatio/temporal filtering	Height:	1RU, 1.75" (5cm)
Receiver Inputs		Weight:	20 lb (9.1Kg)
ASI and UDP / IP MPEG-2 inputs up to MP@HL MPEG-4 inputs up to HP@L4 ATSC digital terrestrial (SE-6501R)		Packaged Weight:	33 lb (15Kg)
Audio Processing		Power:	100-240V (continuous), 47-63Hz
Mode:	MPEG-1 Layer 2 HE-AAC (v2) audio encoding LC-AAC audio encoding Transcoding from AC3 to DD Plus and HE-AAC Dolby® Digital pass-through Audio options (see ordering options)	Power Consumption:	Less than 100W
Ancillary Signal Support		Cooling Air:	Front to rear
Signals:	L21 EIA 608, EIA 708 closed captioning, Teletext, WSS, AFD	Temperature:	0 to 40C
Digital Video Input		Other	
Signal:	Serial digital per SMPTE-292M (HD) Serial digital per SMPTE-259M (SD) Dual link serial digital per SMPTE-327M Embedded audio per SMPTE-272M/299M	Limited Warranty:	One year
Connector:	BNC, female	Compliance:	FCC, CE, UL, RoHS and TUV
Number:	2	Ordering	
Digital Audio Input		SE-6501	
Signal:	4 Serial digital AES inputs	SE-6501R	for ATSC RF input applications
Connector:	Female DB15HD	Ordering Options - Software Licensed	
		DD2	Dolby Digital stereo encoding 2 stereo pairs
		DD-PLUS	Dolby Digital Plus Pro stereo encoding 2 stereo pairs
		AC3xAAC	Dolby Digital to AAC transcoding
		AC3xDD-PLUS	Dolby Digital to Dolby Digital Plus Pro transcoding
		STATMUX	Statmux support
		HD2SD	HD to SD down-conversion - 1080i / 720p to 480i
		AVCDEC	Transcode from HP@4.0 AVC inputs
		HDU	Upgrade to add HD support
		Ordering Options - Hardware	
		AC PSU	Spare AC power supply module
		Audio cable	Audio cable for discrete AES inputs

**MOTOROLA**

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