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Video

IP-9400

High performance H.264 AVC encoder

Fujitsu Advanced MPEG-4 AVC Technology

High Performance with low latency - ideal for ENG/SNG operations

- HD and SD Simulcast Capability
- Region of Interest Processing - Provides Best Picture Fidelity
- Low Encode-Decode Latency
- Non-Degrading 4:2:0 Concatenation Protection (SMPTE Draft RP2050-1 and EG 2050-2)
- Data Stream Protection with Advanced FEC/ARQ
- VoIP Full Duplex Communication
- Auto-sensing Gigabit Ethernet Output with DVB-ASI or DVB-S/S2 Built-in Modulator (option)

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The Fujitsu IP-9400 is specifically suitable for DENG and DSNG operations where the best video fidelity is needed within the lowest possible channel bandwidth. IP-9400 enables HD content to be carried within an existing SD channel. When combined with the optional built-in DVB-S2 modulator provides up to 70% bandwidth saving compared with older MPEG-2 systems.

The IP-9400 encoder utilizes advanced Fujitsu technology to provide industry standard MPEG-4 AVC encoding for real-time transmission of HD/SD content at the highest bandwidth efficiency. Powerful error correction and retransmission technology protect the integrity over IP networks by preventing corruption and loss of data. The IP-9400 provides field proven superior performance and robustness making it perfectly suited for demanding mobile and fixed site operations.

Fujitsu high performance H.264 compression algorithms reduce the encoded bitrate and bandwidth requirement by more than 50% compared to MPEG-2 systems, while preserving high video and audio fidelity. HD and SD content can now be transmitted at a significant cost saving using existing DVB satellite and broadband IP networks. IP-9400 allows HD news content to be transmitted within the same bandwidth as SD content encoded in MPEG-2.

IP-9400 provides flexible transmission options using 10T/100T/1G Ethernet for IP connectivity, DVB-ASI or DVB-S/S2 transports. With a low (280ms) encode-decode latency, IP-9400 is well suited for delay-sensitive live-event applications. Standard HD/SD-SDI and HDMI allow quick interconnects with HD/SD devices. A full-duplex VoIP intercom provides an efficient communication link between encoder and decoder locations.

IP-9400 Specifications			
Video	Input		1 x HD-SDI / SD-SDI 1 x HDMI (HD/SD)
	Output		1 x SDI loop thru 1 x NTSC/PAL monitor [HD down-converted]
	Input Format		1080i (59.94 / 50 Hz) 720p (59.94 / 50 Hz) 480I (59.94 Hz) ; 576i (50 Hz)
	Output Resolution/Bitrate		[1920 / 1440 / 960] x 1080i - 3 – 12 Mbps [1280 / 960 / 640] x 720p - 3 – 12 Mbps 720 x [576i / 480i] - 1.3 – 6 Mbps 352 x 240 / 256 or 384 kbps (VBR) 192 x 192 / 256 or 384 kbps (VBR) 96 x 96 / 192 or 256 kbps (VBR) TS rate adjustment at 1kbps increments
	Color Format		4:2:0 (Non-Degraded)
	Profile	HD	HP@L4; MP@L4
		SD	HP@L3; MP@L3; MP@L1.3
	GOP		Changeable GOP - Scene Change Detection
	Latency Modes		Standard Mode: IP – 1.3 sec; DVB – 1.15 sec Low Latency Mode: IP – <0.5 sec; DVB – <0.3 sec
Audio	Input		SDI Embedded – 2 Pairs Analog Stereo (Balanced) – 1 Pair HDMI – 1 Pair
	Coding		MPEG-1-Layer 2 MPEG2-AAC
	Quantization Format		Sampling Rate: 48 kHz Quantization: 16 / 20 bit Pass-through: SMPTE 300M
Multiplexing			MPEG-2 TTS; MPEG-2 TS; 50 Mbps
Auxiliary Data			RS-232C (pass-thru)
Network Interface	LAN		2 x 10BASE-T / 100BASE-TX / 1000BASE-T MDI / MDI-X AUTO Support
	DVB-ASI (Optional)		2 x Outputs
	DVB-S/S2 (Optional)		IF-Band Modulator L-Band Modulator
Encryption			BISS Mode1/E
Error Correction			Pro-MPEG COP3 Fujitsu FEC and ARQ
Streaming Protocols			UDP, RTP, Multicast and Unicast TOS bit setting
Configuration and Control			SNMP v2c Front Panel Control WEB GUI
Voice Intercom			Full Duplex VoIP; G.711 8 kHz Sampling Rate at 64 kbps
Size			1RU x 16.7"W x 13.8"D
Weight			13.2lb (6 kg)
Power Supply			100 – 240 VAC
Power Consumption			Max. 60W (w/o Option)
Operating Temperature			-10° to 55° C
Certifications			UL, CE, FCC, RoHS

Printed in the U.S.A. DSIP94000910