

IP-9500

High performance H.264 AVC encoder

Fujitsu Advanced MPEG-4 AVC Technology

High performance over a wide range of encoded data rates providing exceptional video and audio fidelity

- ▶ 4:2:2/4:2:0 Simulcast Capability
- ▶ HD and SD Simulcast Capability
- ▶ Region of Interest Processing - Provides Best Picture Fidelity
- ▶ Low Encode-Decode Latency
- ▶ Non-Degrading 4:2:0 Concatenation Protection
- ▶ 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)



FUJITSU

THE POSSIBILITIES ARE INFINITE

IP-9500

High performance H.264 AVC encoder

The Fujitsu IP-9500 high performance encoder is field proven by global television networks to provide superior performance over a wide range of encoded data rates, making it highly suitable for applications ranging from low data rate <12Mbps 4:2:0 format News Gathering to high value live events at high data rates >30Mbps in 4:2:2 format. It is also highly suited to IP backhaul where a high degree of protection and fidelity is afforded to high value content. The IP-9500's robust MPEG4 compression technology enables high value 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 savings compared with older MPEG-2 systems.

The IP-9500 high performance 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-9500 provides field proven superior performance and robustness making it perfectly suited for demanding fixed site operations.

IP-9500 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-9500 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 interactive communications between encoder and decoder locations.

For more information, call us at 877-766-7545 (toll free in the US) or visit our website at: <http://us.fujitsu.com/video>



Fujitsu Frontech North America, Inc.
www.fujitsufrontechna.com
 25902 Towne Centre Drive, Foothill Ranch, CA. 92610

©2009 Fujitsu Frontech North America, Inc. All rights reserved. Fujitsu and the Fujitsu logo are registered trademarks and The Possibilities are Infinite is a trademark of Fujitsu Ltd. All other trademarks are the property of their respective owners. All statements herein are valid only in the U.S. for U.S. residents, are based on normal operating conditions, are provided for informational purposes only, and are not intended to create any implied warranty of merchantability or fitness for a particular purpose. Fujitsu Frontech North America, Inc. reserves the right to modify at any time without prior notice these statements.

Printed in the U.S.A. DSIP95001209

IP-9500 Specifications

Video	Input	1 x SDI (HD/SD) 1 x HDMI (HD/SD) 1 x External Sync I/F
	Output	1 x SDI (HD/SD) 1 x HDMI (HD/SD) 1 x NTSC/PAL [HD down-converted]
	Input Format	1080i (59.94 / 50 / 60 Hz) 720p (59.94 / 50 / 60 Hz) 480i (59.94 Hz) 576i (50 Hz)
	Output Resolution/Video Bitrate	[1920 / 1440 / 960] x 1080i - 3 - 33 Mbps* [1280 / 960 / 640] x 720p - 3 - 33 Mbps* 720 x [576i / 480i] - 1.3 - 10 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) 4:2:2 Chroma Scalable Coding
	Profile	HD MP@L4; MP@L4 422CSC (Proprietary)
		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/Output
Coding		MPEG-1-Layer 2 MPEG2-AAC Pass-thru (SMPTE-302M) Pass-thru (AC-3/ATSC) Pass-thru (AC-3/DVB)
Quantization Format		Sampling Rate: 48 kHz Quantization: 16 / 20 bit
Multiplexing		MPEG-2 TTS: 1 - 50Mbps* MPEG-2 TS: 1 - 50Mbps*
Ancillary Data Transmission	Private PES (SMPTE RDD 11-2007) DID/SDID filtering ATSC Annex F (Closed Caption) Line 21 and 261	
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 ; 1 x Input
	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	
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	

* Minimum and Maximum limits will vary based upon system configuration.

