Encoder & Transcoders

DXP-5800EC/5801EC
8-Channel H.264 HD/SD Encoder

DXP-5800/5801EC is a series of high density real-time H.264 HD/SD Encoders that can support up to eight High Definition (HD) A/V signals compressing and encoding simultaneously. These A/V signals can be fed into the unit via 8x SDI input ports as different factory options. The encoded streams can be then remultiplexed and output over its GbE IP and ASI ports. All models support Time Base Correction (TBC) to ensure the audio and video synchronization, the features necessary for the professional TV signal flow. The series provide two TS/IP operation modes. The first is "Full Duplex", which allows one MPTS or SPTS inputted over 1 multicast/unicast to make up a new MPTS with local encoders, then sends out the new one over 1 multicast/unicast. In the second mode "Multiple output" which delivers up to 9 streams over IP. There are 8 un-stuffed SPTS (lower bit rate but less PCR accurate than normal SPTS, from local encoders) and 1 MPTS (from internal reMultiplexer) over the IP with different Unicast or Multicast IP addresses. DXP-5800/5801EC allows user to configure, monitoring and manage over the informative front panel and keypad, or Web interface, or SNMP based management software from 3rd party. This Encoder family presents brilliant picture quality, high density design, high stability system architecture, and the hot-swappable power supply.

Built-in Remultiplexer and TS/IP interface

Up to 8 SDI or HDMI input

Hot-swappable redundant power supply

Main Feature

- Compile with H.264/AVC HP@L4.0
- MPEG1 Layer II, MPEG2 AAC-LC, MPEG4 AAC-LC audio compression (see ordering information)
- 8-way real time encoder with re-multiplexed integrated
- Built-in re-Mux accepts up to 10 SPTS/MPTS (8 from local encoders, 2 from external input over IP and ASI)
- 1 ASI input (for daisy chain) & Redundant ASI output

- Full duplex Gigabit TS over IP I/O (under Full duplex operation mode)
- Up to 9 multicast/unicast output (under Multiple output operation mode)
- VBR and CBR encoding mode
- Free resolution downscale at same frame rate
- SNMP & HTTP WEB
- Redundant Power Supplies
- 19" x 1 U EIA standard chassis

Order Information

Interface		DXP-5800EC		DXP-5801EC		DXP-5400EC		DXP-5401EC	
		-S	-H	-S	-H	-S	-H	-S	-H
Audio/Video Input	HD/SD SDI	8		8		4		4	
	HDMI		8		8		4		4
TS Input	ASI	•		•		•		•	
	TS/IP Input (Full dumplex)	•		•		•		•	
TS Output	ASI	•		•		•		•	
	TS/IP	•		•		•		•	
Management	RJ-45	•		•		•		•	
Upgrade	USB	•		•		•		•	
Alarm/Relay	Alarm	•		•		•		•	
Debug	RS-232	•		•		•		•	
Digital Audio HE-AAC，AAC-LC		Y		N		Y		N	

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Digital TV Equipment and System

Specification

Video input & compression	
Number of input ports	HDMI x 8 or HD-SDI x 8
Compression Standard	H.264/AVC HP@L4.0
Video Sampling Format	4:2:0, 8-bit, YCbCr
Video Encoding Bit Rate	2~30Mbps for each channel
Video Resolution & Recommended Bit Rate	1080p (1920×1080) @ 59.94 Hz,50Hz: SMPTE296M: 6~30Mb/s 1080 (1920×1080) @25Hz,29.97Hz, 30Hz:SMPTE274M: 6~24Mb/s 1080i (1440×1080) @25Hz,29.97Hz, 30Hz:SMPTE274M: 5~24Mb/s 720p (1280×720) @50Hz,59.94Hz, 60Hz:SMPTE296M: 4~24Mb/s 480i (720×480) @29.97Hz:SMPTE656M: 2~10Mb/s 576i (720×576) @25Hz: SMPTE656M: 2~10Mb/s
Other Video Resolution	Free resolution downscale at same frame rate
Aspect Ratio	4:3/16:9 Selectable
Audio Input & compression	
Input	SDI Embedded audio
Audio Compression	MPEG1 Layer II, MPEG2 AAC-LC, MPEG4 AAC-LC (option)
Sampling Rate	48KHz
Compression Bit Rate	32~192Kbps(Mono), 64~384Kbps (Stereo), 128~512Kbps(AAC LC)
DVB-ASI Input	
Interface	BNC Female, 75Ω
Maximum Input Bit rate	100 Mb/s
Data Transfer type	Byte
Packet Length	188 or 204 Bytes

Signal Level	200 ~ 880mVp-p
DVB-ASI Output	
Interface	BNC Female, 75Ω
Max. Effective Data Rate	120 Mb/s
Data Transfer type	Byte
Packet Length	188 or 204 Bytes
Signal Level	800±80mV
Gigabit TS_over_IP (Full Duplex Mode)	
Standard	IEEE 802.3, 10/100/1000 Base-T, Full Duplex
Max. Effective Bit Rate	80Mb/s
Data Protocol	UDP or RTP, SPTS or MPTS
Control Protocol	ICMP, ARP, IGMPv2
Gigabit TS_over_IP Output (Multi-Channel IPTV Mode)	
Standard	IEEE 802.3, 10/100/1000 Base-T,
Max. Effective Bit Rate	200Mb/s
Data Protocol	UDP or RTP, SPTS or MPTS
Control Protocol	ICMP, ARP, IGMPv2
Rear Panel	
ASI In	1×BNC Female, 75Ω
HD-SDI In	8×BNC Female, 75Ω (DXP-5800/5801EC-S)
ASI Out	2×BNC Female, 75Ω(1 Backup)
Front Panel	
Control	1×RJ-45, 10/100 Base-T
TS/IP	1× IP (GbE), RJ-45, 10/100/1000 Base-T
Display	2×20 LCD Display
Others	
Power Supply	AC90~260V 50/60Hz
Operating Temperature	0~45℃
Storage Temperature	-10~60℃
Operation Humidity	10~90%, (Non-condensed)

Block Diagram

DXP-5800EC/5801EC Functional Block Diagram
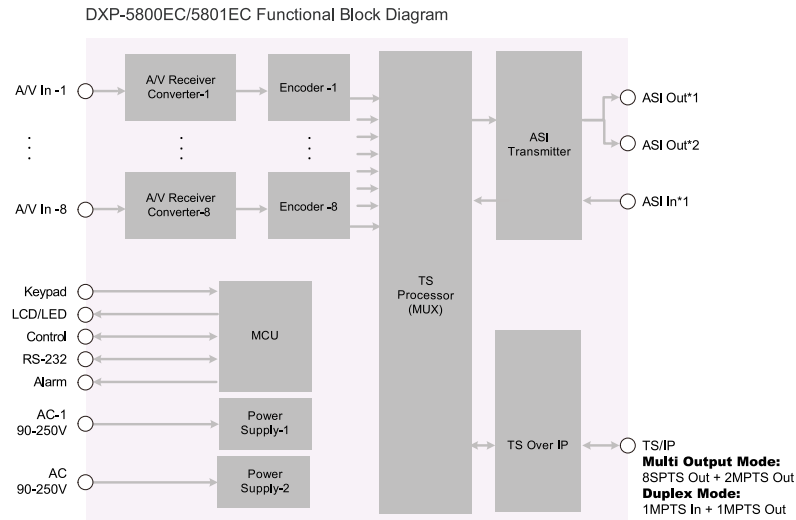
Back Panel Interface

DXP-5800EC/5801EC-S

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