



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 unstuffed 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.



Main Feature

- Comply 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

Built-in Remultiplexer and TS/IP interface



Up to 8 SDI or HDMI input



Hot-swappable redundant power supply



Order Information

| Functionality | | 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 duplex) | • | | • | | • | | • | |
| 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 | |

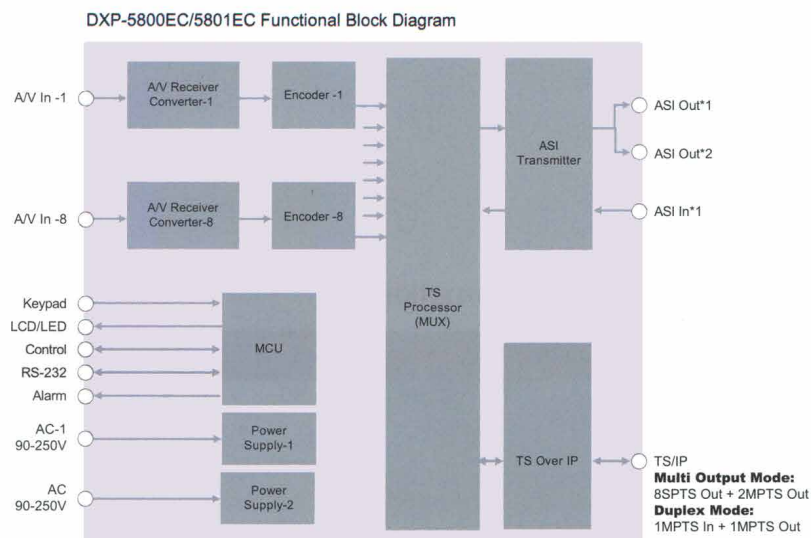
Encoder & Transcoders

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°C |
| Storage Temperature | -10~60°C |
| Operation Humidity | 10~90%, (Non-condensed) |

Block Diagram



Back Panel Interface

DXP-5800EC/5801EC-S

