

NKP- 4800/4801EC

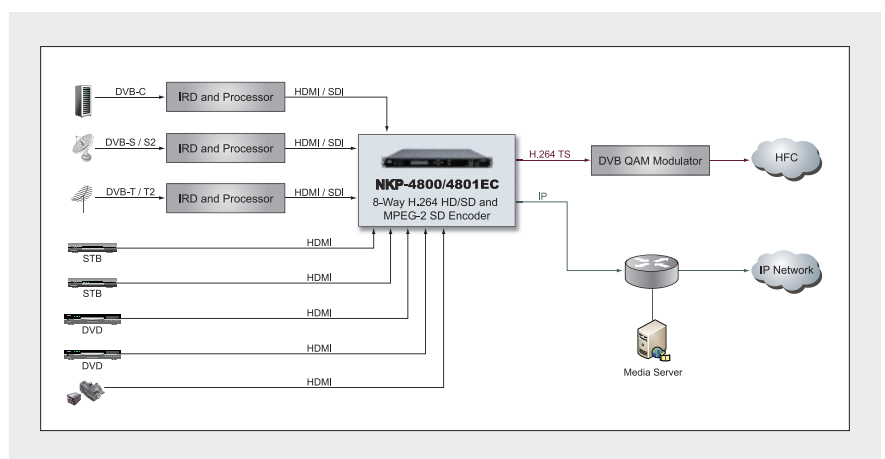
8-Way H.264 HD/SD and MPEG-2 SD Encoder



Main Feature

- Compile with H.264/AVC HP@L4.0&MPEG-2 MP@ML
- MPEG1 Layer II, MPEG-2/4 AAC-LC/HE-AAC audio compression (AAC is for DXP-4800EC-X only)
- Support video resolution 1080i, 720p, 576i and 480i
- 8x HD-SDI or HDMI or CVBS input type factory option(CVBS support SD only)
- SNMP & HTTP WEB
- 8-way encoder with re-multiplexed integrated
- Low bit rate encoding. Minimum video encoding bitrate can reach 500Kbps.
- Support resolution down scale
- Support VBR and CBR
- Full duplex Gigabit TS over IP I/O
- Redundant Power Supplies
- 19"×1 U EIA standard chassis

NKP4800EC/4801EC is a high density real-time H.264 HD/SD and MPEG-2 SD Encoder that can support up to eight High Definition (HD) A/V signals compressing and encoding simultaneously. These A/V signals can be fed into NKP-4800EC/4801EC via 8x HDMI or 8x SDI input ports depending on different factory option. The encoded streams can be then remultiplexed and output over its GbE IP and ASI ports. NKP-4800EC adopts the chipset solution that embeds Time Base Correction (TBC) to ensure the audio and video synchronization, the features necessary for the professional TV signal flow. NKP-4800EC/4801EC 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. Brilliant picture quality, high density design, high stability system architecture, and the hot-swappable power supply make the NKP-4800EC/4801EC the best choice for real-time H.264 HD/SD or MPEG-2 SD encoding.



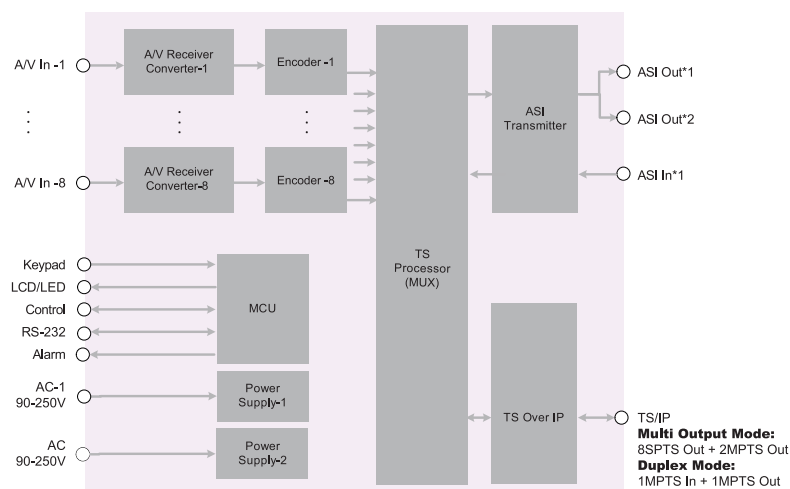
Specification

Video input & compression	
Number of input ports	HDMI×8 or HD-SDI×8 or CVBS x 8
Compression Standard	H.264/AVC HP@L4.0, MPEG-2 MP@ML
Pixel Format	4:2:0, 8-bit, YCbCr
Video Encoding Bit Rate	500Kbs~20Mbps for each channel 1080i(1920×1080)@ 25Hz,29.97Hz,30Hz: SMPTE274M: 1~20Mb/s 720p(1280×720)@25Hz,29.97Hz,30Hz:S MPTE296M: 1~20Mb/s 480i(720×480)@25Hz:SMPTE656M: 600K~10Mb/s 576i(720×576)@25Hz: SMPTE656M:600K~10Mb/s Output resolution can be adjusted freely by user
Video Resolution (with recommended compress bitrate)	
Resolution down-scale	
Aspect Ratio	4:3/16:9 Selectable
Audio Input & compression	
Input	HDMI or SDI Embedded audio or analog audio (factory option) MPEG1 Layer II, MPEG-2/4 AAC-LC, HE-AAC(V1,V2). Note: AAC is for DXP- 4800EC only
Audio Compression	
Sampling Rate	48KHz
Compression Bit Rate	MPEG1 Layer II :32~192Kbps(Mono), 64~384Kbps(Stereo) MPEG2/4 AAC-LC :24~256Kbps(Mono), 48~512Kbps(Stereo) MPEG2/HE-AAC(V1/V2): 16~128Kbps(Mono), 32~256Kbps(Stereo)
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
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
Maximum 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,
Maximum Effective Bit Rate	200Mb/s
Data Protocol	UDP or RTP, SPTS or MPTS
Control Protocol	ICMP, ARP, IGMPv2
Interfaces on Rear Panel	
ASI In	1×BNC Female, 75Ω
HD-SDI In	8×BNC Female, 75Ω (only available on DXP-4800EC/4801EC-S)
HDMI In	8×HDMI Male, 75Ω (only available on DXP-4800EC/4801EC-H)
CVBS&Audio In	(8×3)×BNC Male, 75Ω (DXP- 4800EC/4801EC-C)
ASI Out	2×BNC Female, 75Ω(1 Backup)
Interfaces on Front Panel	
Control	1×RJ-45, 10/100 Base-T
TS/IP	1×IP(GbE), RJ-45, 10/100/1000 Base-T, Full Duplex
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

NKP-4800/4801EC Functional Block Diagram

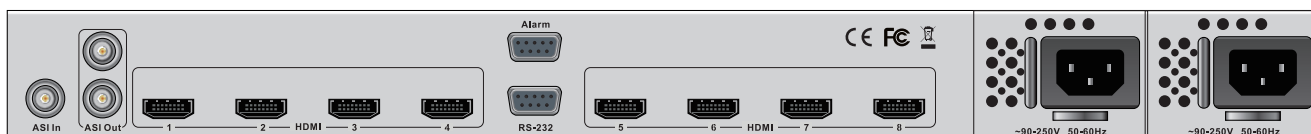


Back Panel Interface

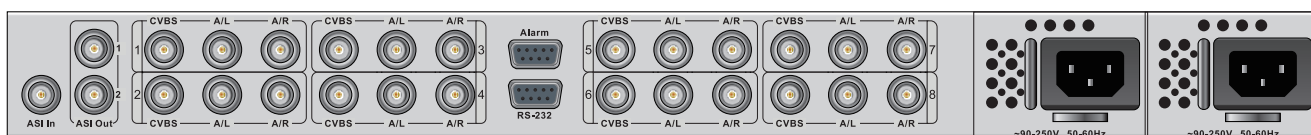
NKP-4800/4801EC-S



NKP-4800/4801EC-H



NKP-4800/4801EC-C



Order Information

Model		NKP-4800EC-S	NKH-4801EC-S	NKP-4800EC-H	NKH-4801EC-H	NKH-4800EC-C	NKP-4801EC-C
Input	HD/SD SDI	x 8	x 8				
	HDMI			x 8	x 8		
	CVBS & Analog Audio					x 8	x 8
	TS/IP (under full duplex mode)	•	•	•	•	•	•
TS Input	ASI	•	•	•	•	•	•
	TS/IP (GbE)	•	•	•	•	•	•
TS Output	ASI(1+1)	•	•	•	•	•	•
	TS/IP (GbE)	•	•	•	•	•	•
Audio AAC-LC /HE-AAC		Y	N	Y	N	Y	N