

DXP-8000EM consists of two group 4-way H.264/MPEG-2 encoder modules, TS reMultiplexer, DVB RF modulator and TS_over_IP module. All encoders are real time and independent operated. Each encoder accepts one stereo program through its HDMI input or CVBS input. These encoded programs could be multiplexed into one Transport Stream (TS). The essential PSI/SI tables of the TS, including LCN (Logical Channel Number), are generated automatically and are editable by user. The TS could be modulated to one DVB RF carrier, including QAM or COFDM. This MPTS is also available at the ASI output & TS/IP output simultaneously. DXP-8000EM is accommodated in a standard 1U x 19" rack mountable chassis.

DXP-8000EM

8-way Integrated Encoder Modulator Series



Main Feature

- Compliant with H.264/AVC HP@L4.0 & MPEG-2 MP@ML
- Internal reMUX accepts TS from the TS/IP port, supporting MPTS and SPTS outputs
- Up to 9 TS/IP streams @ total bit rate of 200Mb/s
- HD/SD Video Resolution: 1080i, 720p, 576i, 480i
- RF Modulator options: DVB-T, DVB-C & DVB-T2 (simplified, factory option)
- RF Output Level 120dBμV
- Remote control/monitoring with SNMP and HTTP/Web interface
- Two Redundant Power Supplies

Order Information

	Description	RF Output	Encoder Input	Encoder Way	TS/IP (Full Duplex/IPTV Output)	Audio Encode (AAC)
1	DXP-8000EM-80HC	DVB-C				
2	DXP-8000EM-80HT	DVB-T	HDMI	8	N	Y
3	DXP-8000EM-80HT2	DVB-T2				
4	DXP-8000EM-82HC	DVB-C				
5	DXP-8000EM-82HT	DVB-T	HDMI	8	Y	Y
6	DXP-8000EM-82HT2	DVB-T2				
7	DXP-8000EM-40HC	DVB-C				
8	DXP-8000EM-40HT	DVB-T	HDMI	4	N	Y
9	DXP-8000EM-40HT2	DVB-T2				
10	DXP-8000EM-42HC	DVB-C				
11	DXP-8000EM-42HT	DVB-T	HDMI	4	Y	Y
12	DXP-8000EM-42HT2	DVB-T2				
13	DXP-8000EM-80CC	DVB-C				
14	DXP-8000EM-80CT	DVB-T	CVBS&Audio	8	N	N
15	DXP-8000EM-80CT2	DVB-T2				
16	DXP-8000EM-82CC	DVB-C				
17	DXP-8000EM-82CT	DVB-T	CVBS&Audio	8	Y	N
18	DXP-8000EM-82CT2	DVB-T2				
19	DXP-8000EM-40CC	DVB-C				
20	DXP-8000EM-40CT	DVB-T	CVBS&Audio	4	N	N
21	DXP-8000EM-40CT2	DVB-T2				
22	DXP-8000EM-42CC	DVB-C				
23	DXP-8000EM-42CT	DVB-T	CVBS&Audio	4	Y	N
24	DXP-8000EM-42CT2	DVB-T2				
25	DXP-8000EM-80SC	DVB-C				
26	DXP-8000EM-80ST	DVB-T	SDI	8	N	Y
27	DXP-8000EM-80ST2	DVB-T2				
28	DXP-8000EM-82SC	DVB-C				
29	DXP-8000EM-82ST	DVB-T	SDI	8	Y	Y
30	DXP-8000EM-82ST2	DVB-T2				
31	DXP-8000EM-40SC	DVB-C				
32	DXP-8000EM-40ST	DVB-T	SDI	4	N	Y
33	DXP-8000EM-40ST2	DVB-T2				
34	DXP-8000EM-42SC	DVB-C				
35	DXP-8000EM-42ST	DVB-T	SDI	4	Y	Y
36	DXP-8000EM-42ST2	DVB-T2				

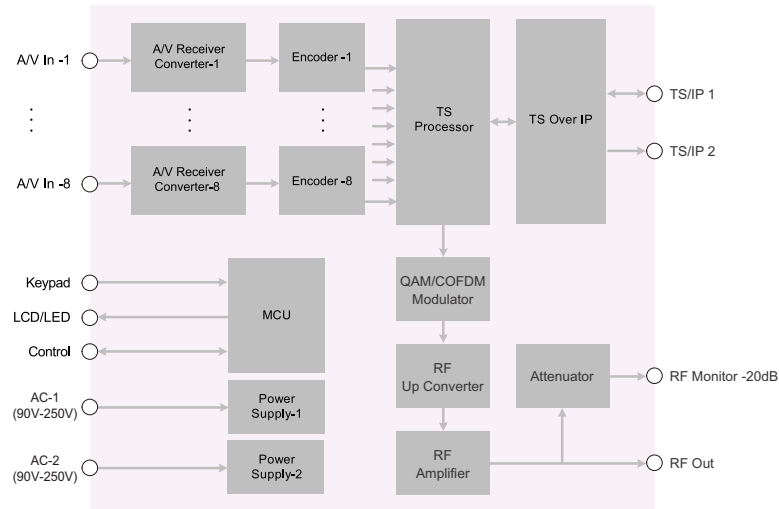
Specification

Video	
Input Interface	HDMI, type A female x 8, or CVBS RCA-female 75Ω x 8
Encode Standard	H.264/AVC HP@L4.0&MPEG-2 MP@ML
Chrominance Sampling Format	H.264/AVC MP@L4.0&MPEG-2 MP@ML
	4:2:0
	1080i (1920 × 1080)
	@25Hz,29.97Hz,30Hz:SMPTE274M: 1~13Mb/s
	720p (1280 × 720)
Output Resolution Settings & their recommend range	@25Hz,29.97Hz,30Hz:SMPTE296M: 1~13Mb/s
	480i (720 × 480) @25Hz:SMPTE656M: 800K~8Mb/s
	576i (720 × 576) @25Hz: SMPTE656M:800K~8Mb/s
Video Resolution Down Scaling	Vertical & Horizontal adjustable respectively (frame rate is not scalable)
Aspect Ratio	4:3 or16:9, configurable
Audio	
Input Interface	HDMI embedded x 8 or RCA-female pair x 8
Encode Standard	MPEG1 Layer II, MPEG-2/4 AAC-LC, HE-AAC(V1,V2)
Sampling Frequency	48KHz
	MPEG1 Layer II :32~192Kbps(Mono), 64~384Kbps(Stereo)
	MPEG2/4 AAC-LC :24~256Kbps(Mono), 48~512Kbps(Stereo)
Encoder Bit Rate Range	MPEG2/4 HE-AAC(V1/ V2): 16~128Kbps(Mono), 32~256Kbps(Stereo)
TS/IP, Mode 1: Full Duplex, Single TS in, Single TS out	
Standard	IEEE 802.3, 10/100/1000 Base-T
Maximum Bit Rate	120Mb/s in + 120Mb/s out
Data Encapsulation	UDP, RTP, SPTS or MPTS
Protocol	ICMP, ARP, IGMPv2, IGMPv3
TS/IP Mode 2: 128 Channel IPTV Mode	
Standard	IEEE 802.3, 10/100/1000 Base-T
Output	128 Channels
Maximum Effective Bit Rate	400Mb/s
UDP/RTP	SPTS or MPTS
Protocol	ICMP, ARP, IGMPv2, IGMPv3
TS/IP Mode 3: DVB Mode	
Standard	IEEE 802.3, 10/100/1000 Base-T
Output	32 Channels
Maximum Effective Bit Rate	600Mb/s
UDP/RTP	SPTS or MPTS
Protocol	ICMP, ARP, IGMPv2, IGMPv3

QAM Modulation	
Standard	J.83 Annex A: 16/32/64/128/256QAM: J.83 Annex B: 64B/256B
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Symbol Rate	3~7.2MS/s
BER	≤10E-9
MER	>35dB (with Tester Equalizer enabled)
COFDM Modulation	
Constellation	QPSK/16QAM/64QAM
Band Width	6/7/8MHz
Carrier Mode	2K/4K/8K
Guard Interval	1/4, 1/8, 1/16, 1/32
FEC Punch Rate	1/2, 2/3, 3/4, 5/6, 7/8
Modulation to Error Ratio, MER	>36dB
DVB-T2 Modulation	
Constellation	QPSK/16QAM/64QAM/128QAM/256QAM
Band Width	6/7/8MHz
Carrier Mode	2K
PLP count	Single
Guard Interval	1/4, 1/8, 1/16, 1/32
FEC Punch Rate	1/2, 2/3, 3/4, 5/6, 7/8
Modulation to Error Ratio, MER	>36dB
RF Output	
Output Interface	1x F type female, 75Ω
Output Frequency Range	100 ~ 862MHz, step by 10 KHz
Maximum RF Output Level	120dBμV +3dB, step by 1dB
Spurious Rejection	>55dBc @ 120dBμV
Return Loss	≥12dB(typ.)
Rear Panel	
HDMI In	HDMI x 8
CVBS In	RCA Female, 75Ω x 8
RF Out	F-female, 75Ω x 1
Front Panel	
Control	RJ-45, 10/100 Base-T x 1, USB x 1
TS/IP	RJ-45, 10/100/1000 Base-T x 1
Display	2x16 LCD module
RF Monitor -20dB	F-female, 75Ω x 1
Others	
Input AC Voltage Range	AC100~260V 50/60Hz
Operating Temperature	0 ~ 40°C
Storage Temperature	-10 ~ 60°C
Operating Humidity	10 ~ 90%, Non-condensed

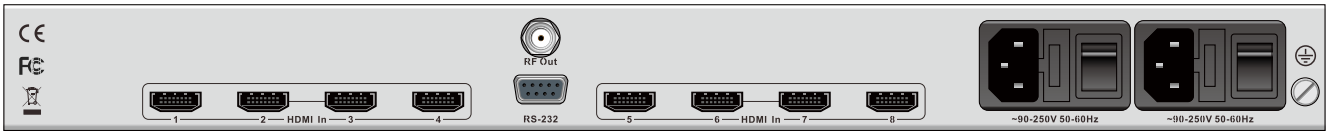
Block Diagram

DXP-8000EM Functional Block Diagram

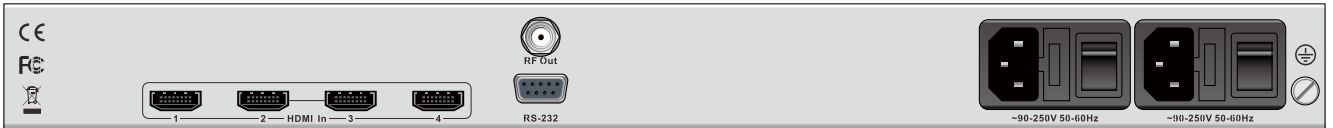


Back Panel Interface

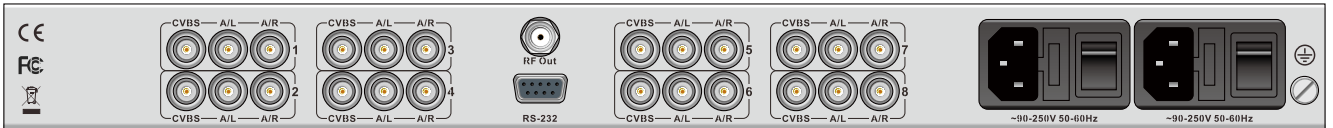
DXP-8000EM-8XHX



DXP-8000EM-4XHX



DXP-8000EM-8XCX



DXP-8000EM-4XCX

