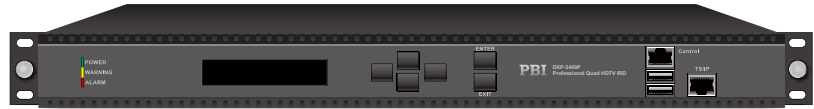


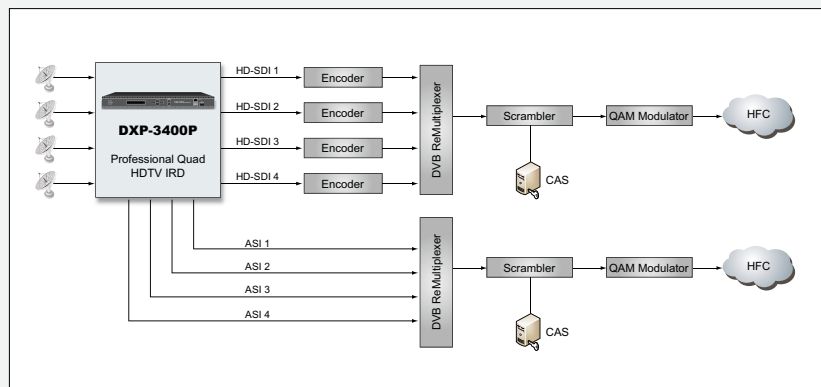
The DXP-3400P provides operators an ideal solution for multi receiving, descrambling, remultiplexing and decoding operations. By the quad DVB common interfaces, DXP-3400P could decrypt multiple services in 4 transport stream. DXP-3400P is also a professional IRD that features a broadcast quality decoder for MPEG-2 and MPEG-4 AVC/H.264 in both Standard Definition and High Definition formats, and provides a variety of industry standard digital and analog outputs, including 4 separated CVBS video, analog Audio, SD-SDI and HD-SDI. The unit also performs HD down-conversion and aspect ratio adaptation of HD programs to generate professional quality baseband analog video and audio outputs for easy integration with existing cable network infrastructure. This all-in-one architecture makes the DXP-3400P an ideal product for distribution and contribution networks.

DXP-3400P Professional Quad HDTV IRD



Main Feature

- Quad Tuner Input, Supports variety of input options DVB-T2/S2/S/C/T/DTMB/ATSC/ISDB-T, DS3/E3,
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T SFN MIP pass through
- SD/HD MPEG-2 and MPEG-4 AVC/H.264 digital video decoding
- Two Audio PIDs decode or pass through (compressed) for each SDI output
- Built-in 2xTS re-multiplexer, one receives from Tuner1, Tuner2, CI1 and CI2 Inputs, the other receives from Tuner3, Tuner4, CI3 and CI4 Inputs
- 4x DVB-CI Slots, multi-program decryption, BISS-1 and BISS-E decryption
- On Site software update through IP or USB
- Dynamic PMT detection and automatic updating
- Supports VBI TELETEXT, EBU/DVB Subtitle, Closed Caption
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software
- PCM audio embedded in SDI and HDMI outputs
- AC3 and Dolby E audio can be passed through by SDI
- VBI TELETEXT, WSS and Closed Caption embedded in SDI
- RSSI, received Eb/No & BER monitoring
- Redundant power supply



Specification

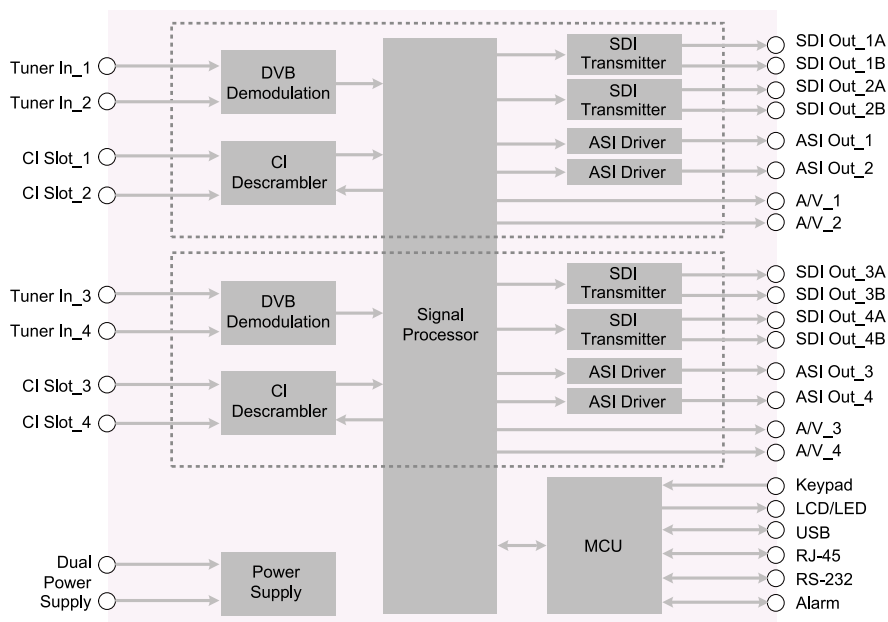
Tuner Input	
DVB-S/S2 Tuner Input (ISI Factory Optional)	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency Range	950~2150MHz
Input Level	-25~-65dBm
Symbol Rate	2~45MBAud
Roll-off Factor	DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2
FEC Code Rate	DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
LNB Polarity Selection Voltage	0, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable
Satellite Selection Command	DiSEqC 1.0
ISI ID	1~255 user configurable
DVB-C Tuner Input	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency Range	51~862MHz
Input Level	51~75dBμV
Symbol Rate	1~7MBAud (ITU J.83 Annex A)
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
Input Return Loss	7dB (typ.)
DVB-T/T2 Tuner Input	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency	104~862MHz (VHF/UHF)
Input Level	-20~-70dBm
Constellation	DVB-T: QPSK, 16QAM, 64QAM DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
FFT Mode	DVB-T: 2K, 8K DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Guarding Interval	DVB-T: 1/4, 1/8, 1/16, 1/32 DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128
FEC Code Rate	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Input Return Loss	7dB (typ.)
DTMB Tuner Input	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency Range	46.5~866MHz
Input Level	-87~-29dBm
Symbol Rate	7.56MBAud
Bandwidth	6MHz/7MHz/8MHz
Constellation	4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM
Guard Interval	PN420, PN595, PN945
Roll-off Factor	0.05
Interleaving Depth	240, 720
FEC Code Rate	0.4, 0.6, 0.8
ATSC Tuner Input	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency Range	54~864MHz
Input Level	-75~-7dBm(ATSC 8VSB)
Symbol Rate	10.762MBAud
Constellation	8VSB
Roll-off Factor	0.115
Bandwidth	6MHz
DS3 Input (Option)	
Connector Type	4×BNC female, 75Ω, including loop through
Standard	Compliant with ITU-T G.703

Frame Structure	Compliant with ITU-T G.752 and ITU-T G.804
Bit Rate	44.736Mb/s
TS Processing	
TS Input Management	Demux and Remux among Tuner and CI Inputs
TS Output Management	Demux and Remux for 4 independent ASI outputs
Service and PID Management	Remux, filtering and remapping
PSI/SI	PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation
Descrambler	DVB Common Scrambling Algorithm (CSA)
BISS Mode	BISS-1, BISS-E
Common Interface	Double PCMCIA slots, compatible with major CA CAMs in the market
ASI Output	
Connector Type	4 independent BNC female, 75Ω
Standard	DVB-ASI, EN50083-9
Output Bit Rate	≤ 100Mb/s
TS Processing	2 Independent TS Re-multiplexed from tuner1, Tuner2, CI1 and CI2.
	The other 2 Independent TS Re-multiplexed from tuner3, Tuner4, CI3 and CI4.
Digital Video Processing	
Video Standard	MPEG-2(MP@ ML for SD, MP@HL for HD) MPEG 4/H.264 AVC Part 10 (MP@L3 for SD, HP@L4.1 for HD)
SDI Video Resolution	1080i×30, 1080i×29.97, 1080i×25, 720p×60, 720p×59.94, 720p×50, 576i×25, 480i×29.97
Video PID Bit Rate	≤ 60Mb/s
HD/SD-SDI or ASI Output	
Connector Type	4 Pairs of SDI output, BNC, female, 75Ω
SD Standard	SMPTE 259M, 270 Mb/s (10bit)
HD Standard	SMPTE 292M, 1.485 Gbit/s (10bit)
Level	800mV p-p
Embedded Audios	MPEG-1 Layer 2
	a. 2 stereo pairs (Stereo, Dual Mono, Left, Right)
	Dolby Digital (AC3)
	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)
	b. Dolby Digital Audio Pass-through
	Dolby Digital Plus(AC3+)
	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)
	b. Dolby Digital Audio Pass-through
	Dolby E
	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)
	b. Dolby Digital Audio Pass-through
	MPEG-2 AAC
	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)
	b. 2.0 (Stereo, Dual Mono, Left, Right)
	MPEG-4 HE-AAC v1/v2
	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Mono, Left, Right)
	b. 2.0 (Stereo, Dual Mono, Left, Right)
	Teletext, WSS, CC
Analog Video Output	
CVBS Connector	4×BNC female 75Ω
CVBS Standard	NTSC, PAL, and SECAM
CVBS Resolution	576i×25, 480i×29.97
Nominal Output Level	1.0 Vp±5% (with standard test stream)
Frequency Response	<±1 dB, at 5.5 MHz for PAL/SECAM, 4.2MHz for NTSC
Chroma-Luma Delay	<±30 ns

Field Time Distortion	<2%	Connector Type	1×RJ-45, 10/100 Base-T, for equipment
Line Time Distortion	<1%	Remote Control	IP Control
Short Time Distortion	<2%		SNMP, HTTP (Web Interface),
Differential Gain	<3%		Proprietary HDMS (Headend Device
Differential Phase	<2°		Management System)
Signal to Noise Ratio	>55dB (luminance weighted)	Local Control	LCD display and 6-key keypad
Analog Audio Output		Serial Port	1×RS-232 D-sub female, for debug use
Connector Type	2×D-sub 9 male included 4 pairs of	Equipment Upgrade	only
	stereo audio with XLR adaptor cable		Embedded FTP loader and Telnet
Output Impedance	600Ω (balanced)	Physical	
Output Mode	Left, Right, Dual Mono, Stereo	Dimension	
Number of Output	4 pairs of stereo audio outputs (4 Audio	Weight	
	PIDs or 8 channels are decoded)	Power Supply	AC 90V ~ 250V, 50/60Hz
Cross Talk Among Channels	>70dB	Power Consumption	24W (exclusive of LNB power)
THD	<0.3% @ 400Hz, 1KHz test tone	Operating temperature	0~45°C
Frequency Response	±0.5dB over 20Hz ~ 18KHz	Storage temperature	-10~60°C
Output Level	0dBm in 600Ω (0dBu), adjustable range	Operating Humidity	10~90%, non-condensed
	±10dB	Certification	
Ancillary Data Processing		EMC: EN 55024:1998+A1:2001+A2:2003, EN 55022:2006+A1:2007, EN	
Subtitle	DVB, EBU	61000-3-2:2006, EN 61000-3-3:2008	
VBI	Teletext, WSS	FCC: Part 15 Class B	
Closed Caption	EIA 608, EIA 708, EIA 608-to-708	LVD: EN 60950-1:2006 + A11:2009	
Control & Monitoring			

Block Diagram

DXP-3400P Functional Block Diagram



Order Information

"X" in table below stands for the option of tuner frontend.

Model			3400P-10 Series				3400P-20 Series				3400P-30 Series			
Interface			10X	12X	14X	16X	20X	22X	24X	26X	30X	32X	34X	36X
Standard Video/ Audio Option	CVBS	4*BNC	•	•	•	•	•	•	•	•	•	•	•	•
	AUDIO	2XDB9 with 8*R/L	•	•	•	•	•	•	•	•	•	•	•	•
	HD-VIDEO	1*HDMI	•	•	•	•	•	•	•	•	•	•	•	•
Digital Video/Audio	SDI	8*BNC, 4 Pairs												
TS Output	ASI OUT	4*BNC												
IP	100M Base-T / 6* Multicast	2*RJ45, Mirrored												
	100M Base-T / 32*Multicast	1*RJ45												
	GbE	1*RJ45												
Control/Upgrade	Management	1*RJ45												
	Upgrade	2*USB	•	•	•	•	•	•	•	•	•	•	•	•
	RS-232	1*D9	•	•	•	•	•	•	•	•	•	•	•	•
Power Supply	ALARM/RELAY	1*D9	•	•	•	•	•	•	•	•	•	•	•	•
	Power	2*	•	•	•	•	•	•	•	•	•	•	•	•
X = Tuner Frontend option	C	DVB-C	Factory default option: X= S2											
	T	DVB-T												
	S2	DVB-S2												
	T2	DVB-T2												
	D	DS3												
	M	STM-1												
	A	Extended ASI port												
	N	No tuner frontend												

Back Panel Interface

