



HDTV IRD / Processor DCH-5500P

Features

- Variety of input options DVB-T2/S2/S/C/T/DTMB/ATSC/ISDB-T, DS3/E3, TS/IP and ASI
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T SFN MIP pass through
- Redundant backup among Tuner, ASI and TS/IP with configurable priority
- 4:2:0 and 4:2:2 (optional) of SD/HD MPEG-2 and MPEG-4 AVC/H.264 digital video decoding
- Up to 8 Audio PIDs decode or pass through (compressed) in SDI output
- Up to 6 Audio PIDs decode or pass through (compressed) in AES output
- Multiple Analog and Digital Outputs, ASI, CVBS, HDMI, SD/HD-SDI, AES/EBU Audio, TS/IP
- Built-in TS re-multiplexer receives from ASI, Tuner and TS/IP Inputs
- 2 x DVB-CI Slots, multi-program decryption, BISS-1 and BISS-E decryption
- Frame synchronizes the IRD to the external black and burst reference
- Dynamic PMT detection and automatic updating
- Supports VBI TELETEXT, EBU/DVB Subtitle, Closed Caption, and can be embedded in SDI
- UDP/RTP, Unicast/Multicast, and double full duplex SPTS/MPTS over IP
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software
- One alarm Relay with D-sub 9 male connector
- On Site software update through IP and USB
- RSSI, received Eb/No & BER monitoring
- 1.5" TFT LCD on front panel for monitoring
- Hot-swappable redundant power supply

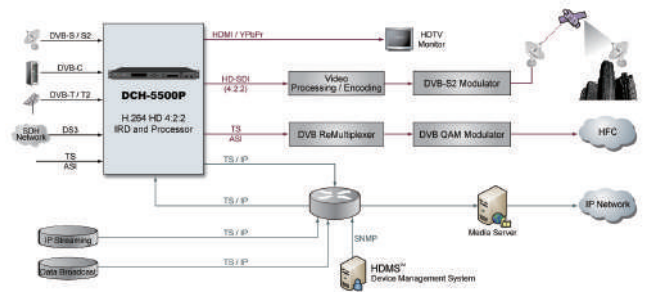
Specifications

Model		DCH-5500P				
DVB-S/S2 Tuner Input (ISI Factory Optional)	Connector Type	1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output	DTMB Tuner Input	Connector Type	1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output	
	Input Frequency Range	950~2150MHz		Input Frequency Range	46.5~866MHz	
	Input Level	-25~-65dBm		Input Level	-87~-29dBm	
	Symbol Rate	2~45MBaud		Symbol Rate	7.56MBaud	
	Roll-off Factor	DVB-S QPSK: 0.35		Bandwidth	6MHz/7MHz/8MHz	
	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		Constellation	4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM	
	LNB Polarity Selection Voltage	0, 13V, 18V selectable		Guard Interval	PN420, PN595, PN945	
	LNB Band Selection Tone	0/22KHz selectable		Roll-off Factor	0.05	
	Satellite Selection Command	DiSeqC 1.0		Interleaving Depth	240,720	
	ISI ID	1~255 user configurable		FEC Code Rate	0.4, 0.6, 0.8	
DVB-C Tuner Input	Connector Type	1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output	ATSC Tuner Input	Connector Type	1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output	
	Input Frequency Range	51~862MHz		Input Frequency Range	54~864MHz	
	Input Level	51~75dBμV		Input Level	-75~-7dBm(ATSC 8VSB)	
	Symbol Rate	1~7MBaud (ITU J.83 Annex A)		Symbol Rate	10.762MBaud	
	Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM		Constellation	8VSB	
	Bandwidth	6MHz, 7MHz, 8MHz		Roll-off Factor	0.115	
DVB-T/T2 Tuner Input	Input Return Loss	7dB (typ.)	ASI Input 1	Bandwidth	6MHz	
	Connector Type	1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output		DS3 Input 2 (Option)	Connector Type	1 x BNC female, 75Ω
	Input Frequency	104~862MHz (VHF/UHF)			Standard	DVB-ASI, EN50083-9
	Input Level	-20~-70dBm		DS3/E3 Input (Option)	Input Bit Rate	≤ 100Mb/s
	Constellation	DVB-T: QPSK, 16QAM, 64QAM DVB-T2: QPSK, 16QAM, 64QAM, 256QAM,			Connector Type	1 x BNC female, 75Ω
	Bandwidth	6MHz, 7MHz, 8MHz		TS over IP	Standard	DVB-ASI, EN50083-9
	FFT Mode	DVB-T: 2K, 8K DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K			Input Bit Rate	≤ 100Mb/s
	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		Connector Type	2 x BNC female, 75Ω, including loop through	
	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		Standard	Compliant with ITU-T G.703	
	Input Return Loss	7dB (typ.)		Frame Structure	Frame Structure Compliant with ITU-T G.752 and ITU-T G.804	
		Bit Rate	DS3: 44.736Mb/s E3: 34.368Mb/s			
		Connector Type	2 x RJ-45, separated 100/1000 Base-T for TS/IP			
		Effective Bit Rate	800Mb/s for 100/1000 Base-T, duplex for SPTS and MPTS			
		Protocol	UDP / RTP, Multicast / Unicast, IGMPv3, ARP			

Continue to next page

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Model			DCH-5500P			
TS Processing	TS Input Management	Demux and Remux among Tuner / DS3(optional) / E3 (optional), ASI and TS/IP Inputs	Analog video Output	CVBS Connector	1 x BNC female 75Ω	
	TS Output Management	Demux and Remux for 2 independent ASI outputs		CVBS Standard	NTSC, PAL, and SECAM	
	Service and PID Management	Remux, filtering and remapping		CVBS Resolution	576i x 25, 480i x 29.97	
	PSI/SI	PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation		Nominal Output Level	1.0Vp-p±5% (with standard test stream)	
	Descrambler	DVB Common Scrambling Algorithm (CSA)		Frequency Response	<±1 dB, at 5.5 MHz for PAL/SECAM, 4.2MHz for NTSC	
	BISS Mode	BISS-1, BISS-E		Chroma-Luma Delay	<±30 ns	
	Common Interface	Double PCMCIA slots, compatible with major CA CAMs in the market		Field Time Distortion	<2%	
ASI Output	Connector Type	2 pairs of BNC female, 75Ω	Analog Audio Output	Line Time Distortion	<1%	
	Standard	DVB-ASI, EN50083-9		Short Time Distortion	<2%	
	Output Bit Rate	≤ 200Mb/s		Differential Gain	<3%	
HDMI Output	TS Processing	2 Independent TS Re-multiplexed from tuner, TS/IP and 2 ASI inputs	Auxiliary Data Processing	Differential Phase	<2°	
	Standard	1 x HDMI 1.3 interface (up to 1080i)		Redundancy	Signal to Noise Ratio	>55dB (luminance weighted)
	Video Resolution and Frame Rate	1080i x 30, 1080i x 29.97, 1080 x 25, 720p x 60, 720p x 59.94, 720p x 50, 480p x 60, 576p x 50, 576i x 25, 480i x 29.97			Control & Monitoring	Connector Type
Audio Embedded	1 x stereo	Output Impedance	600Ω (balanced)			
Video Profile/Level	MPEG-2(MP@ ML for SD, MP@HL for HD), Main Profile(MP) 4:2:0 8-bit, High Profile(HP) 4:2:0 8-bit, MPEG-4/H.264 AVC Part 10 (MP@L3 for SD, HP@L4.1 for HD), High-422(Hi422P) 4:2:2 8/10-bit, High-10(Hi10P) 4:2:0 10-bit, High (HiP) 4:2:0 8-bit, Main (MP) 4:2:0 8-bit, Constrained Baseline (CBP) 4:2:0 8-bit, High 10 Intra Profile (AVC-I 50) 4:2:0 10-bit, High 4:2:2 Intra Profile (AVC-I 100) 4:2:2 8/10-bit	Alarm	Output Mode	Left, Right, Dual Mono, Stereo		
Audio Decode	Audio Format		MPEG-1 Layer 2 Dolby Digital (AC3) Dolby Digital Plus(AC3+) Dolby E MPEG-2 AAC MPEG-4 HE-AAC v1/v2	Other	Number of Output	2 pairs of stereo audio outputs (2 Audio PIDs or 4 channels are decoded)
	Audio Decode		a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. Dolby Digital Audio Pass-through		Cross Talk Among Channels	>70dB
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. Dolby Digital Plus Audio Pass-through	THD		<0.3% @ 400Hz, 1KHz test tone	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. Dolby E Audio Pass-through	Frequency Response		±0.5dB over 20Hz ~ 18KHz	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono)	Output Level		0dBm in 600Ω (0dBu), adjustable range±10dB	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono, Left, Right)	Subtitle		DVB, EBU	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono, Left, Right)	VBI		Teletext, WSS	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono, Left, Right)	Closed Caption		EIA 608, EIA 708, EIA 608-to-708	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono, Left, Right)	Redundancy Port		Among Tuner, ASI input and	
	Audio Decode	a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right) b. 2.0 (Stereo, Dual Mono, Left, Right)	Switching Condition		TS/IP inputSwitching Condition TS Sync Loss	
Digital Video Processing	Connector Type	2 x BNC female, 75Ω	Certification	Switching Mode	Main, Spare	
	SDI Video Resolution	1080p x 59.94, 1080p x 50, 1080i x 30, 1080i x 29.97, 1080i x 25, 720p x 60, 720p x 59.94, 720p x 50, 720p x 29.97, 720p x 25, 576i x 25, 480i x 29.97		Connector Type	2 x D-sub 9 male	
HD/SD-SDI Output	Video PID Bit Rate	≤ 60Mb/s	Certification	Switching Condition	User Defined	
	Connector Type	1 pair of BNCs (mirrored) , female, 75Ω (1 pair of BNCs can be configured as ASI Output-3)		Connector Type	1 x RJ-45, 10/100 Base-T, for equipment IP Control	
Genlock	SD Standard	SMPTE 259M, 270 Mb/s (10bit)	Certification	Remote Control	S N M P 2 . 0 , H T T P (W e b G U I) , Proprietary HDMS (Headend Device Management System)	
	HD Standard	SMPTE 292M, 1.485 Gbit/s (10bit)		Local Control	LCD display and Front control 6-key keypad	
Digital Audio Processing	Level	800mV p-p	Certification	Monitoring	1.5" TFT LCD monitor	
	Connector Type	1 x BNC female, 75Ω		Serial Port	1 x RS-232 D-sub female, for debug use only	
	Input Signal	Analog SD (black & burst)		Equipment Upgrade	Embedded FTP loader, Telnet and USB	
	Connector Type	2 x D-sub 9 male with XLR adaptor cables and 6 x BNC female 75Ω		Dimension	1U 19" Full-rack size	
	Number of Output	8 x audio PIDs are decoded or passed through		Power Supply	AC 90V~250V, 50/60Hz	
Digital Audio Processing	Nominal Output Level	1V p-p (with standard test stream)	Certification	Power Consumption	24W (exclusive of LNB power)	
	Output Format	SDI (Embedded Audio), AES		Operating temperature	0~45°C	
	Load Impedance	AES1~AES2: 2 x D-sub9, 110Ω (with XLR adaptor cables) AES3~AES8: 6 x BNC, 75Ω		Storage temperature	-10~60°C	
	Load Impedance	AES1~AES2: 2 x D-sub9, 110Ω (with XLR adaptor cables) AES3~AES8: 6 x BNC, 75Ω		Operating Humidity	10~90%, non-condensed	



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