

DCH-3100P

HD 4:2:0 IRD



The DCH-3100P is a cost effective professional integrated receiver decoder. It is widely used in the satellite, cable and terrestrial TV network with different tuner frontend DVB-S2/S, DVB-C and DVB-T/T2. It demodulates the RF signal to the transport stream with ASI. With dual DVB common slots, DCH-3100P works with most of the well known CAS in the market and decrypts multiple services in a transport stream. The on board decoder can process a variety of digital video and audio formats in MPEG-4 AVC/H.264 and MPEG-2, in Standard Definition and in High Definition. The TV channel is decoded to digital and analog outputs, HDMI, YPbPr, CVBS, balanced and un-balanced audio. The powerful demodulation, decryption and decoding capabilities, combined with user friendly WEB GUI and SNMP based remote control makes this equipment one of the most competitive professional IRD in the market.

Optional HDMI for HD output



Dual DVB Common Interface and Multi Programs decryption

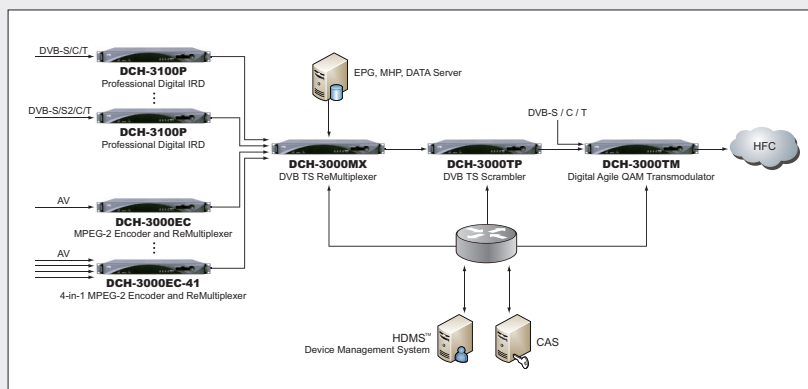


Ethernet management



Main Feature

- Multiple tuner inputs DVB-S2/S, DVB-C, and DVB-T/T2
- 2x DVB-CI Slots, Multi Programs, BISS-1 and BISS-E decryption
- Transport stream output from ASI
- SD/HD MPEG-2 and MPEG-4/H.264 digital video decoding
- Two digital audio channel decoding of MPEG1 Layer II and AAC
- Rich Analog and Digital Outputs including, CVBS, YPbPr, HDMI, XLR
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software
- Dynamic PMT auto detection and updating
- Support VBI TELETEXT, EBU/ DVB Subtitle, Closed Caption
- Configuration save and load after power off

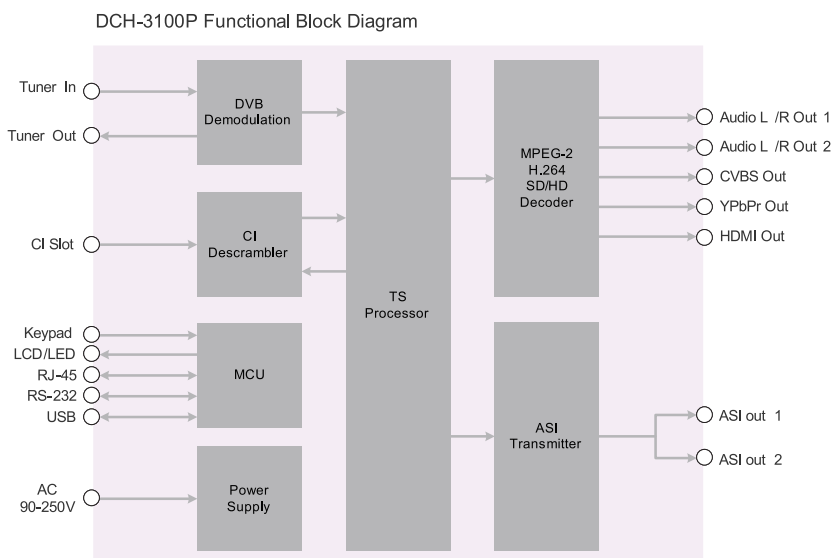


Specification

Tuner Input		Number of Outputs	
DVB-S/S2 Tuner Input		2×digital audio PIDs are decoded*	
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output	Sampling Rate	32, 44.1 and 48KHz
Input Frequency Range	950~2150MHz	Audio Bit Rate	32, 64, 96, 128, 160, 192, 224, 256, 288, 320, 352, 384, 416 and 448 kb/s for MPEG-1 Layer I
Input Level	-25~-65dBm		32, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 and 384 kb/s for MPEG-1 Layer II
Symbol Rate	2~45Mbaud/s for QPSK and 8PSK	Analog Video Output	
Roll Off Factor	DVB-S QPSK: 0.35	YPbPr Connector	1 set of RCA, 75Ω
	DVB-S2 8PSK: 0.35, 0.25, 0.2	CVBS Connector	1×BNC 75Ω, 1×RCA 75Ω
Punctured Rates	DVB-S QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 8/10	Video Standard	NTSC, PAL, and SECAM
	DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10	YPbPr Resolution	1080i×30, 1080i×29.97, 1080i×25, 720p×60, 720p×59.94, 720p×50, 480p×60, 576p×50, 576i×25, 480i×29.97
LNB Polarity Selection Voltage	0, 13V, 18V selectable	Signal Level	I.O Vp±5%
LNB Band Selection Tone	0/22KHz selectable	Frequency Response	<±1 dB, at 5.5 MHz for PAL/SECAM, 4.2MHz for NTSC and 15MHz for HD YPbPr
Satellite Selection Command	DiSEqC 1.0	Chroma-Luma Delay	<±30 ns
DVB-C Tuner Input		Field Time Distortion	<2%
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output	Line Time Distortion	<1%
Input Frequency	48~860MHz	Short Time Distortion	<2%
Input Level	45~75dBμV	Differential Gain	<3%
Symbol Rate	1~7Mbaud (ITU J.83 Annex A)	Differential Phase	<2°
Constellation	16/32/64/128/256QAM	Signal to Noise Ratio	>55 dB (luminance weighted)
Bandwidth	6MHz/7MHz/8MHz	Analog Audio Output	
Input Return Loss	7dB (typ.)	Connector type	1×XLR Male Socket, 2 pairs of RCA audio
DVB-T/T2 Tuner Input		Output Impedance	600Ω (balanced)
Connector Type	1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output	Output mode	Left, Right, Dual Mono, Stereo
Input Frequency	104 ~ 862MHz (VHF/UHF)	Number of Outputs	2 pairs of stereo audio outputs (2 Audio PIDs are decoded).
Input Level	-20 ~ -70dBm	Baseband Data Output	
Constellation	DVB-T: QPSK, 16QAM, 64QAM DVB-T2: QPSK, 16QAM, 64QAM, 256QAM	Subtitle	DVB/EBU
Bandwidth	6MHz, 7MHz, 8MHz	VBI	Teletext, WSS, VFD, VPS
FFT Mode	DVB-T: 2K, 8K DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K	Closed Caption	EIA 608, EIA 708, EIA 608-to-708
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	Control & Monitoring	
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	Connector Type	1×RJ-45, 10/100 Base-T for equipment IP Control
Input Return Loss	7dB (typ.)	Remote Control	SNMP, HTTP Web, Proprietary HDMS Network System Management Software
TS Processing		Local Control	LCD display and 6-key keypad
Descrambler	DVB Common Scrambling Algorithm(CSA)	Serial Port	1×RS-232 9-pin D-sub, for debug use only
BISS Mode	BISS-1, BISS-E	Equipment Upgrade	FTP loader or USB
Common Interface	Dual PCMCIA slots, compatible with major CA CAMs in the market	Physical	
ASI Output		Dimension	44mm×483mm×255mm
Connector type	2×BNC Female, 75Ω	Weight	2.4Kg Net, 4.4Kg Gross
Standard	DVB-ASI, EN50083-9	Power Supply	AC 90V~250V, 50/60Hz
HDMI Output		Power Consumption	24W
Standard HDMI	1×HDMI 1.3 interface (no 1080p)	Operating temperature	0~45
Video Resolution	1080i×30, 1080i×29.97, 1080i×25, 720p×60, 720p×59.94, 720p×50, 480p×60, 576p×50, 576i×25, 480i×29.97	Storage temperature	-10~60°C
Audio Embedded	one digital audio pass through	Operating Humidity	10~90%, non-condensed
Digital Video Processing		Certification	
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)	EMC: EN 55024:1998+A1:2001+A2:2003, EN 55022:2006+A1:2007, EN 61000-3-2:2006, EN 61000-3-3:2008	
Video PID Bit Rate	< 80Mb/s	FCC: Part 15 Class B	
Digital Audio Processing		LVD: EN 60950-1:2006 + A11:2009	

* For more information about digital audio, please contact our sales representative.

Block Diagram



Order Information

Interface	Model	DCH-3100P-10X					DCH-3100P-20X				
		-10C	-10T	-10T2	-10S2	-10A	-20C	-20T	-20T2	-20S2	-20A
Tuner		DVB-C	DVB-T	DVB-T2	DVB-S2		DVB-C	DVB-T	DVB-T2	DVB-S2	
ASI IN						x1					x1
Common Interface		x2	x2	x2	x2		x2	x2	x2	x2	
ASI-Output							x2	x2	x2	x2	x2
HDMI		x1	x1	x1	x1	x1	x1	x1	x1	x1	x1
CVBS		x2	x2	x2	x2	x2	x2	x2	x2	x2	x2
YPbPr		x1	x1	x1	x1	x1	x1	x1	x1	x1	x1
Audio L/R		x2	x2	x2	x2	x2	x2	x2	x2	x2	x2
Balanced audio XLR		x1	x1	x1	x1	x1	x1	x1	x1	x1	x1
USB		x1	x1	x1	x1	x1	x1	x1	x1	x1	x1

Back panel Interface

