

FEATURES

- Variety of input options DVB-S2/S/C/T, TS/IP and ASI
- SD/HD/UHD MPEG-2, MPEG-4 AVC/H.264/H.265/HEVC AVS2 video decoding
- Supports 2 channel Digital Audio AES/EBU output, Dolby AC3 decoding
- Supports Transcoding (DEC-5300PE)
- Analog and Digital Outputs, ASI, CVBS, AES/EBU Audio, HDMI, HD/SD-SDI, TS/IP
- 2x DVB-CI Slots, support for all major CAS and CAMs, BISS-1 and BISS-E descrambling
- Built-in TS re-multiplexer receives from ASI, Tuner and TS/IP Inputs
- Redundant backup among Tuner, ASI and TS/IP with configurable priority
- Dynamic PMT detection and automatic updating
- Supports VBI TELETEXT, EBU/DVB Subtitle, Closed Caption
- UDP/RTP, Unicast/Multicast, and double full duplex SPTS/MPTS over IP
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software
- On Site software update through IP and USB
- RSSI, received Eb/No & BER monitoring

A variety of industry standard digital and analog outputs



Dual DVB Common Interface and Multi Programs decryption



Dual Gigabit Ethernet TS/IP interface for IP based networks



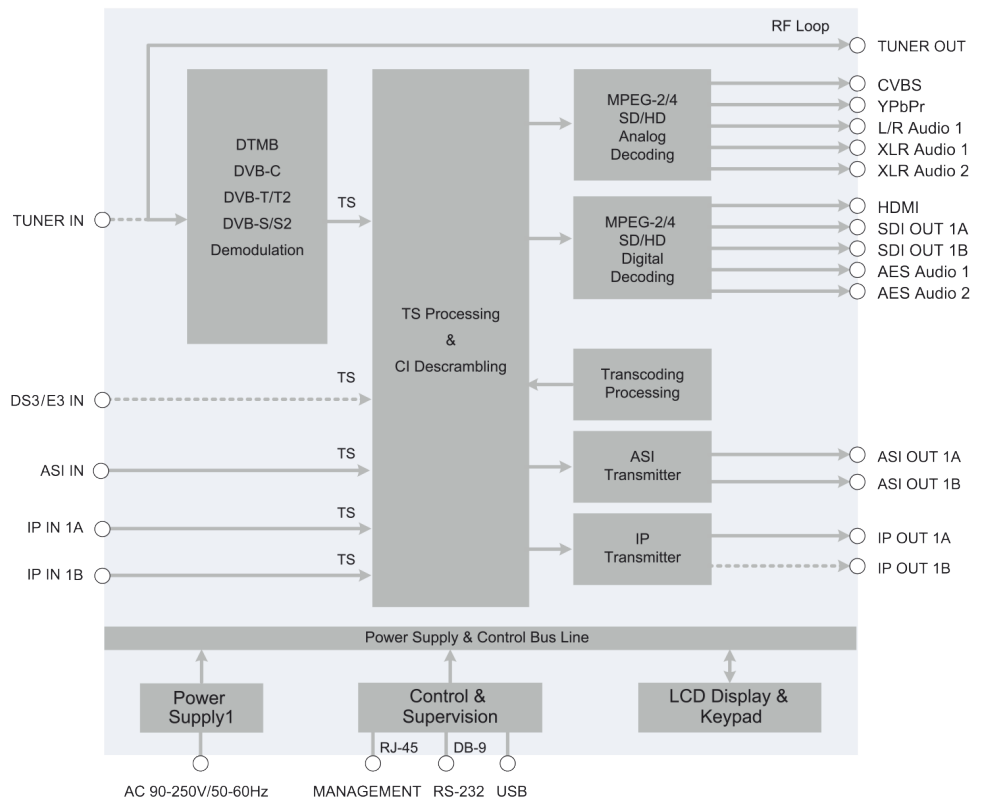
DEC-5003

Professional HEVC IRD/ Professional HEVC IRD and Transcoder

The **DEC-5003** is the new model of IDC's IRD product family. It provides operators an ideal solution for receiving, remultiplexing, descrambling and decoding operations. Equipped with a variety of inputs, it ensures compatibility with all transmission media.

The **DEC-5003's** re-multiplexing capabilities enable creation of new transport streams that are subsets of the original stream. Customized services may be output as multiple SPTS or MPTS over IP, as well as over ASI. By the dual DVB common interfaces, **DEC-5003** could decrypt multiple services in one transport stream or two. **DEC-5003** is also a professional IRD that features a broadcast quality decoder for MPEG-2 and MPEG-4 AVC/H.264/H.265/HEVC 4K/AVS2 in Standard Definition and High Definition formats, and provides a variety

of industry standard digital and analog outputs, including CVBS video/AES/EBU Audio, analog Audio, SD/HD-SDI and HDMI interfaces. The unit also performs 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 **DEC-5003** an ideal product for distribution and contribution networks. **DEC-5003** can trans-code any digital TV format to SD/HD H.264 and SD MPEG-2 format.



DVB-S/S2 TUNER INPUT (ISI 16APSK/32APSK/64APSK S2X Factory Optional)	
Connector Type	1x F type female 75Ω for Input, 1x F type female 75Ω for loop through output
Input Frequency Range	950-2150MHz
Input Level	-25--65dBm
Symbol Rate	DVB-S2X/S2 QPSK 8PSK: 1-60MSps 16APSK: 1-58MSps 32APSK: 1-55MSps 64APSK: 1-34MSps DVB-S QPSK: 1-54MSps
Roll-off Factor	DVB-S: 0.35 DVB-S2: 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	0V, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable
Satellite Selection Command	DiSEqC 1.0
PLS	0-262141 user configurable
ISI ID	1-255 user configurable
DVB-C TUNER INPUT	
Connector Type	1x F type female 75Ω for Input, 1x F type female 75Ω for loop through output
Input Frequency	42-1002MHz
Input Level	-60--20dBm
Symbol Rate	1.8-7.2MSps
Constellation	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth	6MHz, 7MHz, 8MHz
Input Return Loss	7dB (typ.)
DVB-T TUNER INPUT	
Connector Type	1x F type female 75Ω for Input, 1x F type female 75Ω for loop through output
Input Frequency	42-1002MHz
Input Level	-60--20dBm
Constellation	DVB-T: QPSK, 16QAM, 64QAM
Bandwidth	6MHz, 7MHz, 8MHz
FFT Size	DVB-T: 2K, 8K
Guarding Interval	DVB-T: 1/4, 1/8, 1/16, 1/32
FEC Code Rate	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8
Input Return Loss	7dB (typ.)
ASI INPUT	
Connector Type	2xBNC female, 75Ω
Standard	DVB-ASI, EN50083-9
Input Bit Rate	≤ 200Mb/s

TS OVER IP	
Connector Type	2xRJ-45 independent, 100/1000 Base-T for TS/IP
Effective Bit Rate	Full duplex mode, 300Mb/s, 1 channel IP In and 64 channels SPTS/MPTS IP Out
Protocol	UDP/RTP, Multicast/Unicast, IGMPv3, ARP
TS PROCESSING	
TS Input Management	Demux and Remux among Tuner, ASI and TS/IP Inputs
TS Output Management	Demux and Remux for 2 independent ASI outputs
Service and PID Management	2 independent Remux (120M*2), filtering and remapping
PSI/SI	PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation, EIT P/F edition
Descrambler	BISS-1, BISS-E, Double PCMCIA slots, compatible with major CA CAMs in the market
ASI OUTPUT	
Connector Type	2x2 BNC female, 75Ω
Standard	DVB-ASI, EN50083-9
Output Bit Rate	≤ 200Mb/s
HDMI OUTPUT	
Standard	1xHDMI 1.4
Video Resolution and Frame Rate	1080I@60, 1080I@59.94, 1080I@50, 720P@60, 720P@59.94, 720P@50, 480P, 576P, 576I, 480I
Video Bit Rate	≤ 50Mb/s
HD/SD-SDI OUTPUT	
Connector Type	2xBNC female (mirrored), 75Ω
SDI Standard	SD: SMPTE 259M, 270 Mb/s (10bit) HD: SMPTE 292M, 1.485 Gbit/s (10bit)
Audio Embedded	2x audio PIDs are embedded with PCM or passed through
Level	800mV p-p
VIDEO DECODING	
Video Profile/Level	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); H.265(HEVC)
AUDIO DECODING	
Audio Format	MPEG L1/L2 DRA/Real Audio AAC-LC, HE AAC V1/V2, AC3 Dolby Digital
ANALOG VIDEO/AUDIO OUTPUT	
CVBS Connector	2xBNC female 75Ω
CVBS Standard	NTSC, PAL and SECAM
CVBS Resolution	576i×25, 480i×29.97
Audio Connector Type	4xRCA (2 pairs L&R), 2xD-sub9
Output Mode	Left, Right, Dual Mono, Stereo

DIGITAL AUDIO OUTPUT	
Connector Type	2×DB9 male
Nominal Output Level	1V p-p (with standard test stream)
Output Format	AES/EBU
Load Impedance	110Ω (with XLR adaptor cables)
ANCILLARY DATA PROCESSING	
Subtitle	DVB, EBU
VBI	Teletext, WSS
Closed Caption	EIA 608, EIA 708, EIA 608-to-708
TRANSCODING	
Standard	H.264/AVC HP@L4.0, MPEG-2 HP@ML
Bandwidth	2-30Mbps
Video Resolution and Frame Rate	1080i (1920×1080)@25Hz, 29.97Hz, 30Hz: SMPTE274M: 6-24Mb/s 1080i (1440×1080)@25Hz, 29.97Hz, 30Hz: SMPTE274M: 5-24Mb/s 720p (1280×720)@50Hz, 59.94Hz, 60Hz: SMPTE296M: 4-24Mb/s 480i (720×480)@29.97Hz: SMPTE656M: 2-10Mb/s 576i (720×576)@25Hz: SMPTE656M: 2-10Mb/s
Video Ratio	4:3, 16:9
Audio Format	MPEG1 Layer II, MPEG2 AAC-LC, MPEG4 AAC-LC
Sample Rate	48KHz
Audio Standard	MPEG1 Layer II: 64-384Kb/s (Stereo), 32-192Kb/s (Mono), MPEG2/4 AAC-LC: 48-512Kb/s (Stereo), 24-256Kb/s (Mono), MPEG2/4HE-AAC (V1, V2), 32-256Kb/s (Stereo), 16-128Kb/s (Mono)
REDUNDANCY	
Redundancy Port	Among Tuner, ASI input and TS/IP input
Switching Condition	TS Sync Loss
Switching Mode	Main, Spare

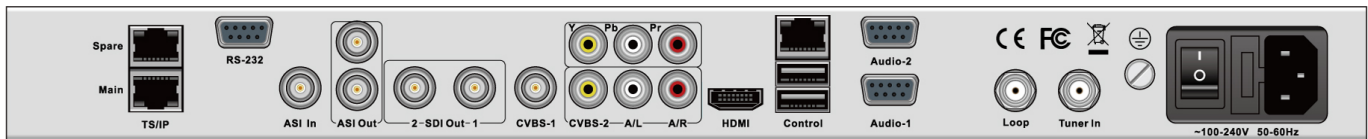
CONTROL & MONITORING	
Connector Type	1×RJ-45, 10/100 Base-T, for equipment IP Control & Monitoring
Remote Control	SNMP 2.0, HTTP (Web GUI), Proprietary HDMS (Headend Device Management System)
Local Control	LCD display and Front control 6-key keypad
Serial Port	1×RS-232 D-sub female, for debug use only
Equipment Upgrade	Telnet/FTP, WEB/HTTP or USB
PHYSICAL	
Dimension	1U 19" Full-rack size, 445mm (Length)×320mm (Width)×45mm (Height)
Weight	5.0Kg
Power Supply	AC 90V-250V, 50/60Hz
Power Consumption	30W (exclusive of LNB power)
Operating temperature	0 ~ 45°C
Storage temperature	-10 ~ 60°C
Operating Humidity	10 ~ 90%, non-condensed

ORDER INFORMATION

Model		DEC-5003		DEC-5003E	
Interface		230X	232X	230X	232X
Input	Tuner	x is tuner options: DVB-S2/S, DVB-T/C, ISDB, ATSC, DTMB, DS Factory default: x-S2			
	ASI IN x2	•	•	•	•
	CI x2	•	•	•	•
ASI	ASI OUT 2x2	•	•	•	•
	HD/SD-SDI x2	•	•	•	•
	Transcoder			•	•
	HDMI	•	•	•	•
	CVBS x2	•	•	•	•
	Analog Audio RCA L/R	•	•	•	•
	Balance Audio XLR L/R	•	•	•	•
Digital Audio AES/EBU	•	•	•	•	
IP	GbE RJ45 x2		•		•
Control	Web Management	•	•	•	•
	USB	•	•	•	•
	PS x2			•	•

Back panel interface (Full option)

DEC-5003



DEC-5003E

