

Professional Integrated Receiver Decoder

RECEIVER, PROCESSOR, DECODER, STREAMER



IRD-7000 Professional HEVC 4K IRD and Processor

The IRD-7000 is the newest model and flagship of BLANKOM's IRD product family. It provides operators an ideal solution for receiving, remultiplexing, descrambling and decoding operations, maximum supporting 4Kx 2K@60fps 10bit decoding. Equipped with a variety of inputs, it ensures compatibility with all transmission media.

The IRD-7000'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, this IRD can decrypt multiple services in one transport stream or two.

The IRD-7000 is a professional IRD that features a broadcast quality decoder for MPEG-2 and MPEG-4 AVC/H.264 HEVC/H.265 in SD, HD and UHD formats, and provides a variety of industry standard digital and analog outputs, including CVBS video, HDMI and 4x 3G SDI interface.

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 IRD-7000 an ideal product for distribution and contribution networks.

Main Features

- Different input options available: DVB-S2/S/C/T, ATSC, ISDB-T, TS/IP and ASI
- Supports DVB-S2 Input Stream Identifier and DVB-T SFN MIP pass through
- Redundant backup function between Tuner, ASI and TS/IP with selectable priority
- SD/HD/UHD MPEG-2, MPEG-4 AVC/H.264, HEVC/H.265 video decoding
- Analog and Digital Outputs, ASI, CVBS, HDMI, SDI, TSoIP
- Multiple 4K output interfaces, 4x 3G SDI, 12G SDI and HDMI 2.0
- Supports HDR10/HLG
- Built-in TS re-multiplexer receives from ASI, Tuner and TS/IP Inputs
- 2x DVB-CI Slots, support for all major CAS and CAM's, BISS-1 and BISS-E de-scrambling
- 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
- One alarm Relay with D-sub 9 male connector
- On-Site software update through IP and USB
- RSSI, received Eb/No & BER monitoring



Available Frontends:

DVB-S/S2/S2X	
Input Frequency Range	9502150MHz
Input Level	-6525dBm
Symbol Rate	1 60MSps
Modulation Type	QPSK, 8PSK, 16APSK, 32APSK, 64APSK
LNB Polarity Selection Volt- age	0, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable, DiSEqC 1.0
PLS	0 262141 -users configurable
ISI ID	1255 -user configurable
DVB-C	
Input Frequency Range	421002MHz
Input Level	-6020dBm
Symbol Rate	1.87.2MS/s
Bandwidth	6/7/8MHz
Modulation Type	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
DVB-T	
Input Frequency Range	421002MHz
Input Level	-6020dBm
Modulation Type	QPSK, 16QAM, 64QAM
Bandwidth	6/7/8MHz
FFT Mode	2K, 8K
Guarding Interval	1/4, 1/8, 1/16, 1/32
Input Return Loss	7dB (typ.)
DTMB	·
Input Frequency Range	441002MHz
Input Level	-6020dBm
Bandwidth	6/7/8MHz
Modulation Type	4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM
ISDB-T	
Input Frequency Range	421002MHz
Input Level	-6020dBm
Standard	ARIB STD-B31 v2.2
Bandwidth	6/7/8MHz
Modulation Type	QPSK, 16QAM, 64QAM

ATSC	
Input Frequency Range	54864MHz
Input Level	-757dBm (ATSC 8VSB)
Symbol Rate	10.762MBaud
Modulation Type	8VSB
Bandwidth	6MHz
Roll-off Factor	0.115
DS3	
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

Rear panel (Full equipped):







Specifications:

TUNER INPUT		
Connector Type	2xF type female 75Ω	
TS Input and Output		
ASI		
Connector Type	Input: 2x BNC, 75Ω; Output: 2x 2 BNC, 75Ω	
Standard	DVB-ASI, EN50083-9	
Bit Rate	Input≤ 200Mb/s; Output ≤ 200Mb/s	
TS over IP		
Connector Type	2xRJ45, 100/1000 Base-T, Independent	
Effective Bit Rate	Full duplex mode: 800Mb/s	
Protocol	UDP/RTP, Multicast / Unicast, IGMPv3, ARP	
TS Processing		
TS Descrambler	Dual PCMCIA: DVB-CI, BISS-1, BISS-E	
Service and PID Manage- ment	Remux, filtering and remapping	
PSI/SI	PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation, EIT P/F edition	
Audio and Video outputs		
Audio Video Coding Standard		
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),	
	AVS MP@ML6.0, Support AVS-P16, H.265,	
	AVS+, AVS2	
Audio Profile/Level	MPEG L1/L2, DRA	
	AAC-LC 、HE AAC V1/V2、 Dolby Digital	
HDMI Output		
Connector Type	1xHDMI 2.0	
Video Resolution	2160p60,2160p50, 1080P60,1080p59.94,1080P30,1080P29.97,	

SDI Output		
Connector Type	4x BNC	
Standard	SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 425M	
SDI Level	Level A/Level B	
SDI Mode	Square Division mode, 2 Sample interleave mode Downscale mode	
Video Resolution	2160p60,2160p50, 1080p60,1080p59.94,1080p30,1080p29.97, 1080p25,1080p24,1080p23.98,1080i30, 1080i29.97,1080i25,720p60,720p59.94,720p5	
Audio Embedded	8xaudio PIDs are embedded with PCM or passed through	
Digital Audio Output		
Number of Output	2xaudios are decoded or passed through	
Connector Type	2xD-sub-9(XLR Converter Line,110Ω)	
Output Format	AES/EBU、SDI (Embedded)	
Analog Audio and video output		
CVBS Connector	2xBNC 75Ω	
CVBS Standard	NTSC, PAL/SECAM	
Audio Connector	4xBNC(L/R) 2 x DB9,XLR Converter Line,600Ω balance	
GenLock		
Connector Type	1xBNC female, 75Ω	
Clock signal input	Analog SD (black & burst)	
Control and Monitorin	ng	
Connector Type	1xRJ45, 10/100M Base-T	
Remote Control	SNMP 2.0, HTTP (Web GUI), Proprietary HDMS (Headend Device Management System)	
Local Control	LCD display and Front control 6-key keypad	
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