

Professional Integrated Receiver Decoder

4 TUNER RECEIVER, PROCESSOR, DECODER, STREAMER



IRD-4000 Professional HEVC 4K IRD and Processor

The IRD-4000 is the little brother of the single UHD-IRD-7000 of BLANKOM's IRD product family. It provides operators an ideal solution for receiving, remultiplexing, descrambling and decoding operations, maximum supporting Full HD decoding. Equipped with 4 Tuner inputs, it ensures compatibility with almost all HD transmissions.

The IRD-4000'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 from several transport streams.

The IRD-4000 is a professional IRD that features a broadcast quality decoder for MPEG-2 and MPEG-4 AVC/H.264 in SD and HD formats, and providing a variety of industry standard digital and analog outputs, including CVBS video, HDMI and 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-4000 an ideal product for distribution and contribution networks.

Main Features

- QUAD-Tuner Input: 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
- SD/HD MPEG-2, MPEG-4 AVC/H.264 video decoding
- Analog and Digital Outputs, ASI, CVBS 8AV1-4), SDI, TSolP
- 2 Audio PID's decoding or pass through for each SDI output
- Multiple output interfaces: 4x 3G SDI, CVBS by Sub-D Adaptor
- Built-in 2x TS re-multiplexer: 1x source from Tuner1, Tuner2, CI1 and CI2 Inputs, the 2nd receives from Tuner3, Tuner4, CI3 and CI4 Inputs and the
- 2x2 DVB-CI Slots, support for all major CAS and CAM's, BISS-1 and BISS-E de-scrambling
- Dynamic PMT detection and automatic updating
- PCM audio embedded in SDI and HDMI outputs. AC3 and Dolby E audio can be passed through by SDI
- Full duplex mode, I/O total bit rate 300M or 64 IPTV/DVB mode output, bit rate 200M, support FEC
- Remote Control and Supervision by SNMP, HTTP WEB
- PCM audio embedded in SDI and HDMI outputs
- On-Site software update by IP and/or USB-port
- RSSI, received Eb/No & BER monitoring

Available Frontends:

DVB-S/S2/S2X	
Input Frequency Range	950...2150MHz
Input Level	-65...-25dBm
Symbol Rate	1 ... 60MSps
Modulation Type	QPSK, 8PSK, 16APSK, 32APSK, 64APSK
LNB Polarity Selection Voltage	0, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable, DiSEqC 1.0
PLS	0 ... 262141 -users configurable
ISI ID	1...255 -user configurable

DVB-C	
Input Frequency Range	42...1002MHz
Input Level	-60...-20dBm
Symbol Rate	1.8...7.2MS/s
Bandwidth	6/7/8MHz
Modulation Type	16QAM, 32QAM, 64QAM, 128QAM, 256QAM

DVB-T	
Input Frequency Range	42...1002MHz
Input Level	-60...-20dBm
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	44...1002MHz
Input Level	-60...-20dBm
Bandwidth	6/7/8MHz
Modulation Type	4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM

ISDB-T	
Input Frequency Range	42...1002MHz
Input Level	-60...-20dBm
Standard	ARIB STD-B31 v2.2
Bandwidth	6/7/8MHz
Modulation Type	QPSK, 16QAM, 64QAM

ATSC	
Input Frequency Range	54...864MHz
Input Level	-75...-7dBm (ATSC 8VSB)
Symbol Rate	10.762MBaud
Modulation Type	8VSB
Bandwidth	6MHz
Roll-off Factor	0.115

Rear panel:



Specifications:

TUNER INPUT	
Connector Type	4xF type female 75Ω
TS Input and Output	
ASI	
Connector Type	Input: 1xBNC, 75Ω; Output: 2xBNC, 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	1, Full duplex mode, I/O total bit rate 300Mb/s 2, 64CH IPTV/DVB mode output, bit rate 200...350MMb/s, support FEC
Protocol	UDP/RTP, Multicast / Unicast, IGMPv3, ARP
TS Processing	
TS Descrambler	4x PCMCIA: DVB-CI, BISS-1, BISS-E

Audio and Video output	
Audio Video De-Coding Standards	
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+
Audio Profile/Level	MPEG L1/L2, DRA AAC-LC, HE AAC V1/V2, Dolby Digital
SDI Output	
Connector Type	4xBNC
Number of Output	4x SD/HD-SDI with embedded 1-ch audio, support AC-3
Video Resolution	1080P59.94, 1080P50, 1080i59.94, 1080i50, 1080i25, 720px60, 720p59.94, 720px50

Analog Audio output	
Audio Connector	2xD-sub15, 600Ω, Converter Line
Audio mode	Left, Right, Dual Mono, Stereo
Number of Audio output	4-ch
Ancillary Data Processing	
Subtitle	DVB, EBU
VBI	Teletext
Control and Monitoring	
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
Upgrade	FTP loader, WEB HTTP, USB