

IRD1511 series

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Universal Single Channel H.264 H.265 Decoder&IRD



single audio track



dual audio track



With the significant increase in 4K/UHD TV sets hitting the Head-end market, content providers and TV broadcasters are looking for low cost Video solution to address the needs of Collect the UHD H264, H265, MPEG2, AVS+ Channels from Cable, Terrestrial, Satellite and IPTV Networks, IRD1511 series Decoder is the answer.

Advanced Modular Receiver has the capability to provide the ultimate feature-set of HEVC UHD/4K, 2160p@30fps, 1080p allowing broadcasters to achieve the highest possible video quality.

IRD1511 series offers Main, Main 10 and Main 4:2:0 4:2:2 High Definition decoding in all industry-standard compression formats combined with optional one Tuners in DVB-S2, **DVB-S2X(optional)**, DVB-T2, DVB-C, works as ASI and TS/IP together. Up to 2 CI slots capable of working with most of well-known CAS in the market to de-encrypt multiple pay TV services. The unit ingests is through DVB-ASI or GigE and output is through 3G SDI, HDMI2.0, AV ports. This efficient and flexible configuration enhances the use cases and overall effectiveness of the product.

Key Features

- MPEG2,H264,AVS/AVS+ and HEVC Decoded in UHD/4K,HD and SD
- Inputs signals: UDP/IP, ASI and Tuners simultaneously in DTV,only IP for UDP/RTP, (HTTP/HTTPS/HLS M3U8/RTSP/RTMP/MMS/SRT optional) in Network Decode
- Optional Tuners DVB-S2, DVB-S2X(optional), DVB-T2 or DVB-C inputs
- Multiple Analog and Digital Outputs, ASI, CVBS, YPbPr, HDMI, SD/HD-SDI, AES/EBU Audio, TS/IP
- Decode to Up to 2160p@30fps in HDMI,1080i@60fps in SDI outputs
- Supports VBI TELETEXT, EBU/DVB Subtitle, Closed Caption
- MPTS Over UDP IP as mirrored of ASI out
- 2x DVB-CI Slots,Multi Programs,BISS-1 and BISS-E decryption
- Configure Audio Channels In Up to 2 *AES/EBU, 2*XLR and 2*embed of HDSDI out
- Option Single or Dual Power Supply
- Low Latency decode
- Audio decoding: AC3/E-AC3/AAC/MPEG1 L2
- Front-panel and web-based user interfaces

Application

- Video Contribution and Distribution in TV studio Station
- Satellite digital TV, Terrestrial digital TV, Cable TV broadcasting
- Contribution decode of high bitrate 4K/UHD HEVC/H.264 video service

TECHNICAL SPECIFICATIONS

DVB-S/S2 Tuner input

DVB-S/S2 Tuner Input	1*RF input, 1*RF loop out 75 Ω
Input frequency	950~2150MHz
Input level	-25~-65 dbm
Symbol Rate	1 ~ 45msps
Roll-off Factor	0. 2, 0.25, 0.35
FEC Code Rate	All rates compatible with the standard
LNB power supply	13V, 18V selectable, 22KHz selectable
Constellation	QPSK, 8PSK

DVB-S2X (optional)

Input Frequency	950-2150MHz
Symbol rate	QPSK/8PSK /16APSK :0.5~45 Msps 8APSK: 0.5~40Msps 32APSK: 0.5~34Msps;
FEC Demodulation	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 8APSK: 5/9-L, 26/45-L 16APSK:2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9, 77/90 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10, 2/3-L, 32/45, 11/15, 7/9
Demodulation Mode	QPSK, 8PSK, 8APSK, 16APSK, 32APSK
Max input bitrate	≤125 Mbps

DVB-C Tuner input

DVB-C Tuner Input	1*RF input, 1*RF loop out 75Ω
Input Frequency Range	48~862MHz
Input Level	45~75dbuV
Modulation mode	16/32/64/128/256QAM

DVB-T/T2 Tuner input

DVB-T/T2 Tuner Input	2*RF input, 2*RF loop out 75 Ω
Input Frequency	44~1002MHZ
Input Level	-20 ~ -100dbm
Modulation mode	DVB-T: QPSK, 16/64 QAM DVB-T2: QPSK, 16/64/256 QAM
Bandwidth	6MHz, 7MHz, 8MHz
Guard Interval	DVB-T: 1/4, 1/8, 1/16, 1/32 DVB-T2: 1/4, 1/8, 1/16, 1/32, 1/64, 1/128
Carrier wave	DVB-T: 2K/8K DVB-T2: 1K/2K/4K/8K/16K/32K
FEC: DVB-T	DVB-T: 1/4, 1/8, 1/16, 1/32 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5 /6

TS in/output interfaces

DVB-ASI	1xASI input, 2x ASI outputs. ≤99Mbps Impedance 75Ω
IP Input	UDP/RTP, (HTTP/HTTPS/HLS/M3U8/RTSP/ RTMP/ MMS/SRT optional), Multicast/unicast
IP output	MPEG-TS over UDP IP out ,Multicast
Connectors	1xRJ-45,10/100 Base-T or 100/1000Base-T

Output Ports

HDMI Output

standards	1 * HDMI 2.0a with HDCP1.2
Resolution	up to UHD/4K @30fps, 1080p@60fps, 1080i@60fps, 1080i@50fps,720p,480i,576i
Embed Audio	One Channel Decoded

SD/HD SDI Output

Connector Type	1 pair of BNCs (mirrored) , female, 75Ω
SD Standard	SMPTE 259M, 270 Mb/s (10bit)
HD Standard	SMPTE 292M, 1.485 Gbit/s (10bit)
Level	800mV p-p

Resolution	1080i,720p,576i,480i
Frame rate	60, 50, 30, 29.97, 25 fps
Embed Audio	Up to 2 Channels Decoded

Analog Audio Output

Connector Type	2×port with XLR adaptor cable
Output Impedance	600Ω (balanced)
Output	Mode Left, Right, Dual Mono, Stereo
Number of Output	2 pairs of stereo audio outputs (2 Audio PIDs or 4 channels are decoded).
Cross Talk Among Channels	>70dB
THD	<0.3% @ 400Hz, 1KHz test tone
Frequency Response	±0.5dB over 20Hz ~ 18KHz

Analog Audio Video Output

Connector Type	1* CVBS , 1 pairs of R/L analog, RCA, 75Ω,
Output level	I.0 Vp-p±5% Standard test stream
CVBS Standard	PALBDGHI, PALN, NTSCM, PALN-C, NTSCM, NTSCM443, PALM, SECAM, NTSCMJ
SNR	≥ 56dB
synchronizing amplitude	300±20mVP-P
frequency characteristic	±0.8 dB (4.8MHz); ±1 dB (4.8-5MHz); +0.5/-4 dB (5.5 MHz)
Output amplitude	700±30mVP-P
Differential gain	≤ 8%

Digital audio output

Connector Type	3pin Female with XLR adaptor cables
Number of Output	Up to 2 audios are decoded
Output Format	AES/EBU

Video Decoding

MPEG-2(MP@ ML for SD, MP@HL forHD)	
MPEG-4/H.264 AVC Part 10 (MP@L3 for SD,HP@L4.1 for HD)	
HEVC(main and main 10 profile, main/high tier up to level 4.1)	
AVS/AVS+(Jizhun/Guanbo profile, level6.0)	
Chroma Sample	4:2:0
Bit Depth	8-bit, 10-bit
Decoding Latency	300-1000ms

Audio Decoding

Audio Standard	MPEG-1 Audio Layers I & II AAC-LC, HE AAC V1/V2 AC3/E-AC3 Dolby Digital/Dolby Digital Plus Dolby Digital Passthrough DRA
Dual Audio Tracks	1 by default, 2 optional

Data output

Subtitle	DVB/EBU/Teletext
Closed Caption	EIA 608, EIA 708, EIA 608-to-708

Control & Monitoring

Interface	1*RJ-45, 10/100 Base-T, for equipment IP Control
Remote Control	Web management
Local Control	LCD display and keypad

Environment

Power Supply	AC 90V~250V, 50/60Hz
Power consumption	24W
Dimension	450*350*44mm
Operating temperature	0 ~ 45℃
Storage temperature	-10 ~ 60℃
Humidity	10 ~ 90% non-condensed
Weight	5KG

Order Information

Model	Max.Res	Audio	Tuner	URL (optional)	Interface	Rj45 Port	Power Supply
IRD1511A	1080P@60fps; 4k@30fps optional	Single	×	✓	1*HDMI, 2*SDI, 1*XLR, 1*AES/EBU, 1*AV	1*10/100M	1 switching power
			✓	×			
IRD1511B	1080P@60fps; 4k@30fps optional	Dual	×	✓	1*HDMI, 2*SDI, 2*XLR, 2*AES/EBU, 1*AV	1*10/100M	1 switching power
			✓	×			
IRD1511C	1080P@60fps; 4k@30fps optional	Single	×	✓	1*HDMI, 2*SDI, 1*XLR, 1*AES/EBU, 1*AV	1*100/1000M	2 switching power
			✓	×			
IRD1511D	1080P@60fps; 4k@30fps optional	Dual	×	✓	1*HDMI, 2*SDI, 2*XLR, 2*AES/EBU, 1*AV	1*100/1000M	2 switching power
			✓	×			
IRD1511E	1080P@60fps; 4k@30fps optional	Single	✓	×	1*HDMI, 2*SDI, 1*XLR, 1*AES/EBU, 1*AV	2*100/1000M	Dual hot-swappable power
IRD1511F	1080P@60fps; 4k@30fps optional	Dual	✓	×	1*HDMI, 2*SDI, 2*XLR, 2*AES/EBU, 1*AV	2*100/1000M	Dual hot-swappable power



IRD1511A



IRD1511B



IRD1511C



IRD1511D



IRD1511E



IRD1511F