

RT5000



Multi-format SD/HD Integrated Receiver Decoder

Delivering video in multiple formats and standards to optimize operational cost is a challenge for broadcasters, NEWS agencies and video professionals. As television industry is upgrading to MPEG-4 AVC HD from MPEG2 SD, Rudraksha Technology's RT5000 ensures a smooth, cost-effective transition to address these multi-format, multi-standard needs by bringing together MPEG-2, MPEG-4 AVC, SD and HD.

RT5000 decodes all video formats, provides a wide choice of input options for all transmission mediums, making it a smart choice for professionals seeking a future-proof solution. This flexibility makes the RT5000 a complete solution for mobile applications. and organizations migrating their operations from MPEG-2 SD to MPEG-4 AVC HD. The multi-format capability of the RT5000 allows a significant cost reduction to the traditional migration path of operating separate devices for SD and HD.



PRODUCT OVERVIEW

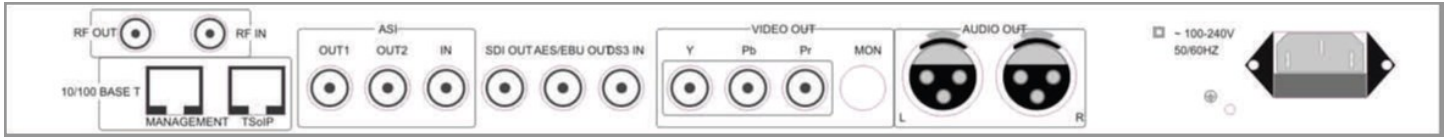
RT5000 multi-format professional receiver increases distribution capacity owing to its bandwidth-reduction capabilities and enhanced encoding/decoding efficiency. For satellite receiving needs, RT5000 can deploy a DVB-S2 demodulator, allowing upto 30% increase in channel capacity.

RT5000 decodes all major SD/HD video formats, providing flexibility in daily operations. With RT5000, companies can migrate to MPEG-4 AVC and HD at their own pace while working with MPEG-2 SD.

RT5000 can be integrated into a variety of system architectures, including ASI, IP and RF delivery systems through a wide choice of input interfaces. The receiver offers a multitude of audio and video outputs for high quality delivery to all major onward networks.

KEY FEATURES

- DVB-ASI, TS over IP input
- Decoding: MPEG-2 4:2:0 SD/HD, H.264 (MPEG-4 part 10) main and high profile level 4.1
- DVB-TS over IP output: UDP/RTP optional, unicast or multicast selectable
- Video output: HD/SD SDI, Y/Pb/Pr, CVBS
- Audio output: SDI embedded, AES/EBU, balanced stereo
- NIT auto search
- PMT auto-update
- Auto-alarm for error conditions
- LCD & keyboard on the front panel, Web-based and SNMP management
- Service and PID dropping, PCR adjusting and NULL stuffing (VBR -CBR) over ASI and IP output
- BISS Mode 1 & E support



SECIFICATIONS

VIDEO AND AUDIO FORMATS

MPEG-4 AVC(HD)

Profiles: MP@L4, HP@L4
 Max. Video Rate: 20 Mbps
 Video format: 1080i at 29.97, 30 & 25 fps,
 1080psf at 23.97fps, 720p at 59.94, 60 & 50 fps

MPEG-4 AVC(SD)

Profiles: MP@L3
 Max. Video Rate: 10 Mbps
 Video format: 480i and 576i 29.97, 25 fps

MPEG-2(HD)

Profiles: MP@HL
 Max. Video Rate: 50 Mbps (MP@HL)
 Video format: 1080i at 29.97, 30 & 25 fps,
 1080psf at 23.97fps, 720p at 59.94, 60 & 50 fps

MPEG-2 (SD)

Profiles: MP@ML
 Max. Video Rate: 15 Mbps (MP@ML)
 Video format: 480i and 576i 29.97, 25 fps

Audio Decoding

MPEG-1 Layer-II audio
 AC3
 AAC
 Sampling rate: 48 kHz
 No. of stereo pairs: 1

INPUT INTERFACES

DVB ASI

Connector: 1x BNC (F) 75 Ohm
 Max. Input Rate: 160 Mbps
 Packet Length: 188/204 byte packets
 Standard: EN50083-9

MPEG over IP

Connector: 1x RJ 45
 Format: 10/100BaseT
 Protocol: UDP/RTP
 IP Format: Unicast/Multicast

DVB-S2

Connector: 1x F-Type (F) 75 Ohm
 Demodulation:
 DVB-S QPSK,
 DVB-S2 QPSK, 8PSK, 16APSK, 32APSK
 Frequency Range: 950 to 2150 MHz
 Input Level: -25 dBm to -65 dBm
 Symbol rate:
 1-45 MS/s (DVB-S)
 1-45 MS/s (DVB-S2 QPSK, 8PSK)
 1-36MS/s (DVB-S2 16APSK)
 1-28MS/s (DVB-S2 32APSK)
 Bit-rate: 130 Mbps Max
 DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8
 DVB-S2 QPSK: 1/4, 1/3, 2/5, 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
 DVB-S2 16ASK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
 DVB-S2 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
 DVB-S2 FEC Frame: Normal Frame
 LNB Power: 13V, 18V ON/OFF, 22 kHz ON/OFF
 Standard: EN300 421, EN302 307

OUTPUTS

SD/HD SDI

Connector: 1x BNC (F) 75 Ohm
 Standard: HD SMPTE 292M, SDSMPTE 259M
 Standard Embedded Audio: SMPTE 299M(HD)
 SMPTE 272M (SD)

DVB-ASI

Connector: 2x BNC (F) 75 Ohm
 ASI Standard: EN50083-9

YPbPr

Connector: 3x BNC (F) 75 Ohm

CVBS

Connector: 1x BNC (F) 75 Ohm
 Format: PAL/NTSC

MPEG over IP

Connector: 1x RJ 45
 Format: 10/100BaseT
 Protocol: UDP/RTP
 IP Format: Unicast/Multicast
 IP Channels: 16

Audio

Analog Audio

Connector: One pair stereo
 Audio Format: 2 x XLR, 600 Ohm

Digital Audio

Connector: 1 x BNC (F), 75 Ohm
 Audio Format: AES/EBU

SDI Embedded Audio

Connector: 1 x BNC (F), 75 Ohm
 Audio Format: 2 Pair Stereo

CONDITIONAL ACCESS OPTIONS

DVB Common Interface
 BISS 1,E
 2x PCMCIA

CONTROL OPTIONS

Front panel keypad and LCD
 SNMP
 Web Interface

PHYSICAL AND POWER

Dimensions (W x D x H)
 482 x 252 x 44 mm
 Input Voltage: 110/210 VAC
 Power Consumption: 45W Max.

ENVIRONMENTAL CONDITIONS

Operating Temperature: 0 - 50 C
 Humidity: 5—95 %

RT5000 SERIES IRD CONFIG LIST

Product Model Number		RT5001	RT5002	RT5000-SD MPEG-2	RT5000-SD MPEG-4	RT5000-HD
Video Format	HD	✓
	SD	✓	✓	✓	✓	✓
Input Interface	DVB-S	✓	✓	✓	✓	✓
	DVB-S2	✓	✓	✓	✓	✓
	ASI	✓	✓	✓	✓	✓
	IP	Optional	Optional	Optional	Optional	Optional
	DS3	Optional	Optional	Optional	Optional	Optional
Output Interface	ASI	✓	✓	✓	✓	✓
	IP	✓	✓	✓	✓	✓
	SDI	.	.	✓	✓	✓
	CVBS	✓	✓	✓	✓	✓
	YPbPr	.	.	✓	✓	✓
	AES/EBU	.	.	✓	✓	✓
	Analog Audio	✓	✓	✓	✓	✓
Video Decoding Format	MPEG1	✓	✓	✓	✓	✓
	MPEG2	✓	✓	✓	✓	✓
	MPEG4	.	✓	.	✓	✓
	H.264	.	✓	.	✓	✓
Audio Decoding Format	MPEG1	✓	✓	✓	✓	✓
	MPEG2	✓	✓	✓	✓	✓
	MPEG2/4 AAC	✓	✓	✓	✓	✓
	AC3	✓	✓	✓	✓	✓
Management	Front Panel	✓	✓	✓	✓	✓
	Web Based	✓	✓	✓	✓	✓



Rudraksha Technology Private Limited

B-401, Sai Sangam, Sector-15, CBD Belapur, Navi Mumbai, India 400614

www.rtpl.co.in • Phone +91 22 6712 2797 • Fax +91 22 6712 2796

Support and Services • support@rtpl.co.in

Sales • sales@rtpl.co.in