Datasheet

CRT1082IPE

CRYPTON COMPACT SIZE 8-CHANNEL INTEGRATED RECEIVER DECODER

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1. Contents

2. Overview

CRT1082IPE is a compact size 8-channel integrated receiver decoder. It combines 8 full featured DVB-S2 receivers with Common Interface for descrambling services, ASI output interfaces and 1Gbit Ethernet port for transport of DVB services over IP networks, all in one 1U case. Such a compact and high integrated solution lets you build your network central station with an exceptional efficiency. WEB control interface lets you control all the system no matter where you are at the moment. Industry standard DVB-ASI or IP output interface makes it easy to serve Digital Video/Audio programs of MPEG2 or H.264 type to DVB multiplexers, IPTV streamers etc.

3. Features

- **8 DVB-S2 receivers.** Full featured DVB-S2 receivers. Both MPEG2 and H.264 compression is supported.
- **8 CI Slots.** DVB-CI compatible interface for service descrambling with CAM modules.
- **8 DVB-ASI outputs.** EN 50083-9 compatible output interface for TS delivery to DVB multiplexers or other devices.
- **1Gbit Ethernet adapter.** IP-to-DVB encapsulation is used for delivery of DVB services over IP networks. Both Unicast and Multicast streaming is supported. 1Gbit Ethernet network adapter let you transport services with minimum jitter.
- **TCP/IP connection.** Industry standard TCP/IP interface is used to access the device.
- **Web Interface.** Standard Web interface is used for device control and embedded applications configuration.
- **AC 220V power supply.** 220 power supply source is used for device normal operation.
- **Compact size.** Thanks to its compact size (19”, 1U) the device can be easily integrated into the DVB, IPTV or other Head Ends.
- **Applications.** SMATV, CATV, MMDS, MVDS, IPTV central stations.

4. General description

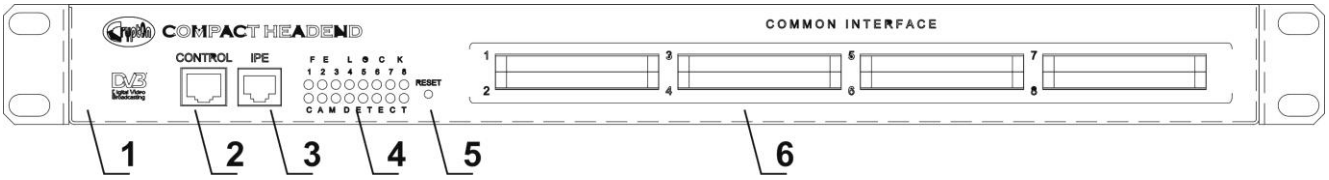

Fig. 1 Front panel

Front panel description

1. Front panel with mounting holes;
2. 100Mbit Ethernet port for device control;
3. 1Gbit Ethernet port for IP streaming of DVB services;
4. LEDs for tuners lock and CAM modules insertion indication;
5. Device network settings RESET button;
6. Common Interface slots for CAM modules.

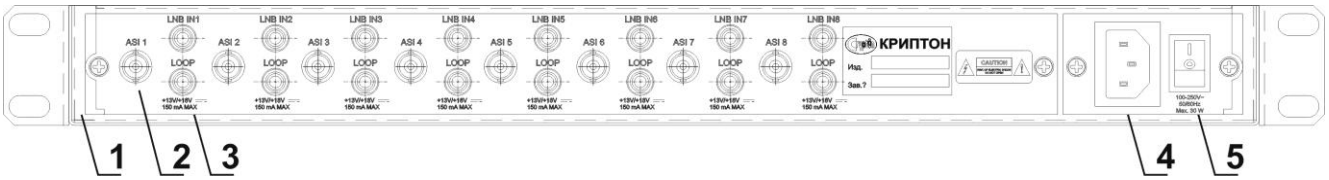

Fig. 2 Rear panel

Rear panel description

1. Rear panel;
2. 8 DVB-ASI outputs of DVB-S2 receivers;
3. 8 LNB inputs of DVB-S2 receivers;
4. Power socket;
5. Power switch;

5. Functional block diagram

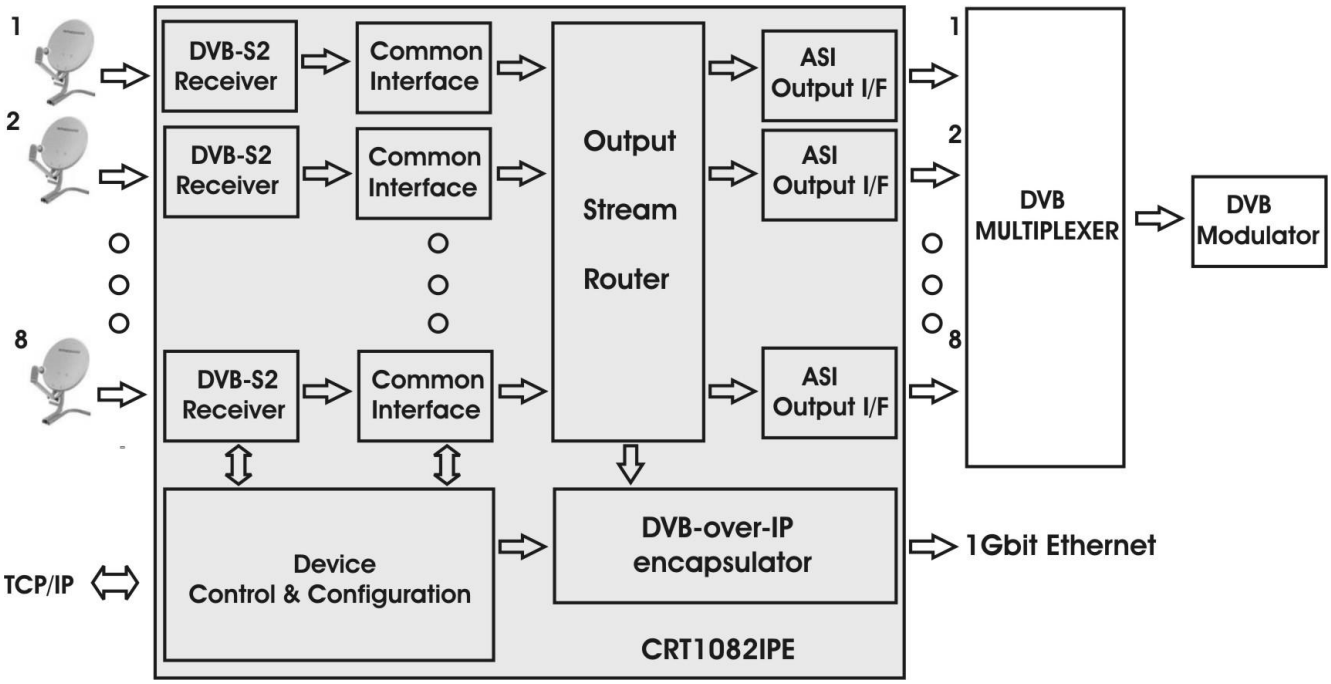

Fig. 3. Functional block diagram of CRT1082IPE

Functional blocks description.

DVB-S2 receiver. 8 full featured DVB-S2 receiver blocks take signal from LNBs, demodulate it and route 8 MPTS to Common interface blocks for descrambling or direct to ASI.

Common Interface. 8 Common interface blocks are able to send and receive TS data to/from CAM modules for descrambling services.

Output Stream Router. Output Stream Router module provide simultaneous transmitting of DVB services over DVB-ASI or IP media.

ASI output I/F. 8 DVB-ASI output interface ports are used to output TS to a third party DVB head end equipments.

IP-over-DVB encapsulator. DVB-over-IP encapsulator module provides Multicast or Unicast streaming of DVB services over IP networks.

Device control & configuration. All device control and configuration is made via active TCP/IP connection and use Web Interface technology.

6. Technical specification

DVB-S2 receiver	
Number of channels	8
Receiving frequency range	950-2150 MHz
Input signal level	-65~-25 dBm
Nominal RF input impedance	75 Ohm
Connector type	IEC, F-type
Modulation	QPSK, 8PSK, 16APSK
SR	1-45Msps(QPSK,8PSK), 1-36Msps(16APSK)
FEC	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10
Common Interface	
Number of channels	8
Specification	EN50221, ETSI TS 101699
DVB-ASI Output	
Number of channels	8
Specification	EN 50083-9
Output impedance	75 Ohm
Connector type	IEC 169-8, BNC-type
Operation modes	Packet, 188 byte
Maximum output bit rate	213 Mbps
DVB-over-IP	
Specification	ETSI TS 102034
Streaming protocols	RTP, UDP
Number of multicast streams	64 (SPTS)
Number of unicast connections	8 (MPTS)
Network interface	1Gbit Ethernet

7. Abbreviations

DVB	–	Digital Video Broadcasting
DTV	–	Digital Television
SI	–	Service Information
PSI	–	Program Specific Information
QPSK	–	Quaternary Phase Shift Keying
SMATV	–	Satellite Master Antenna Television
CATV	–	Cable Television
MMDS	–	Multichannel Multipoint Distribution System
MVDS	–	Multipoint Video Distribution System
SR	–	Symbol Rate
FEC	–	Forward Error Correction