

# Datasheet



***CRT1081IRD-S2-MX***  
*Compact size 8-channel multiplexing DVB-S2 IRD*



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## **1 General information**

### **1.1 Description**

CRT1081IRD-S2-MX – is a compact size eight channel DVB-S2 integrated receiver decoder with embedded four channel DVB remultiplexer. The device consists of 8 full featured DVB-S/S2 receivers, 4 DVB-ASI input interfaces, flexibly configurable 8-channel Common Interface for descrambling services and 4-channel DVB remultiplexer with DVB EPG processor, DVB-ASI and DVB-over-IP outputs, all in one 19-inch, 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.

### 1.2 Technical specifications

<b>DVB-S/S2 receivers</b>	
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
Max. LNB power	13/18 V, 400 mA
Symbol rate	1-45 Mbaud(QPSK, 8PSK)
FEC	auto
<b>Common Interface</b>	
Number of channels	8
Specifications	EN50221, ETSI TS 101699
<b>DVB-ASI inputs</b>	
Number of channels	4
Specifications	EN 50083-9
Connector type	IEC 169-8, BNC-type
Operation modes	auto detect
Max. input bitrate, Mbit/s	213 (packet), 72 (byte)
<b>DVB multiplexers</b>	
Number of input channels	12
Number of output channels	4
Specifications	ISO IEC 13818-1
Max. output bitrate(all channels On)	300 Mbit/s(IP), 400 Mbit/s(ASI)
PID restamping	Yes
SI/PSI processing	Yes
DVB EPG server	Yes(embedded)
DVB NIT server	Yes(embedded)
PCR jitter	< 500 ns
<b>DVB-ASI outputs</b>	
Number of output channels	4
Specifications	EN 50083-9
Connector type	IEC 169-8, BNC-type
Operation modes	Byte/Package, 188 byte
Max. output bitrate, Mbit/s	213 (packet), 72 (byte)
<b>DVB-over-IP</b>	
Specification	ETSI TS 102034
Streaming protocol	UDP
Streaming type	Multicast/Unicast
Number of DVB-over-IP streams	4 (ASI bound MPTS)
Network interface	1 Gbit Ethernet
<b>Control software</b>	
HTTP server (Web)	
<b>Control interface</b>	
100 Mbit Ethernet, TCP/IP	
<b>Supply voltage</b>	
100-240 V	
<b>Max. power</b>	
60 W	
<b>Operational conditions</b>	
Temperature	10...30 °C
Relative Humidity	Up to 95 %, without condensation
<b>Dimensions</b>	
Width, mm	440
Depth, mm	356
Height, mm	44

## 2 Physical Description

### 2.1 Front view

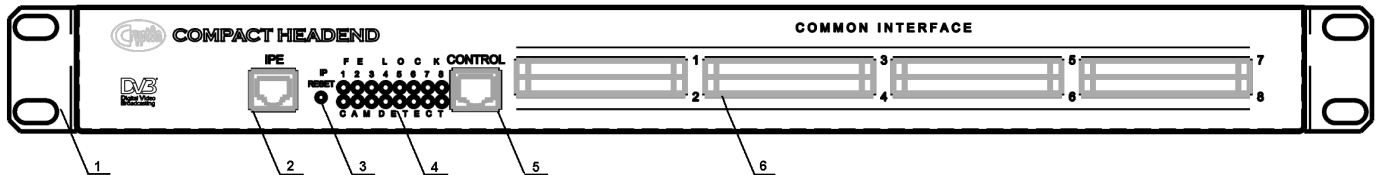


Fig. 1 Front view

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

### 2.2 Rear view

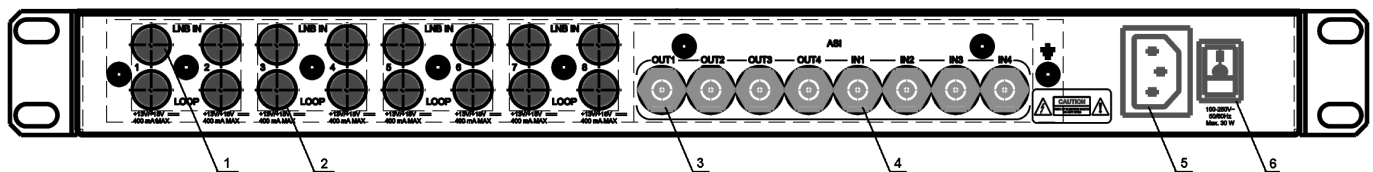


Fig. 2 Rear view

1. 8 DVB-S/S2 receiver LNB inputs;
2. 8 DVB-S/S2 receiver Loop outputs;
3. 4 DVB-ASI outputs from multiplexers;
4. 4 DVB-ASI multiplexers inputs;
5. Power socket;
6. Power switch.

### 3 Functional block diagram

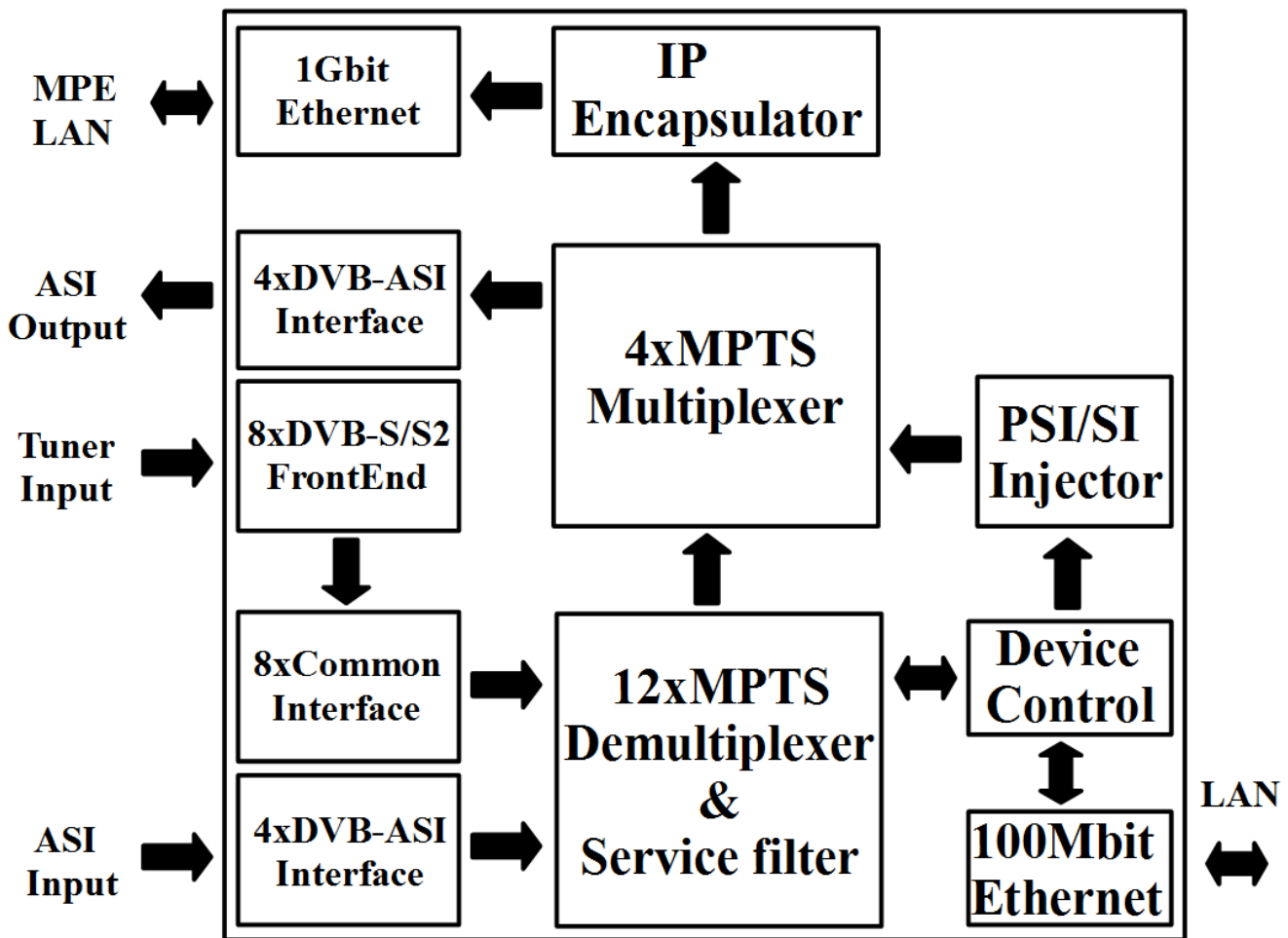


Fig. 3 Functional block diagram.

1. **1Gbit Ethernet** is used to connect the device to the transport DVB-over-IP network;
2. **IP incapsulator** performs packing of DVB services into IP for network delivery;
3. **DVB-ASI interface** provide classical data exchange capability of Head-End equipment;
4. **DVB-S/S2 FrontEnd** supply into the system services from the satellite;
5. **Common Interface** let the CA protected services to be opened with the CAM;
6. **MPTS Demultiplexer&Service filter** provide the ability to only select programs required for re-broadcast;
7. **4xMPTS Multiplexer** collects demultiplexer selected services into 4 new broadcast multiplexes;
8. **PSI/SI Injector** provide the new made multiplexers with proper DVB SI and MPEG PSI stream and program information;
9. **Device control** let you make all the device settings with embedded Http(Web) server;
10. **100Mbit Ethernet** connects the device to the HeadEnd control network.