

IP Receiver Module

The module is designed to receive DVB-transport stream transmitted in Ethernet networks according to the DVB-over-IP standard using UDP / RTP protocols and further transfer using the Synchronous parallel interface (according to EN 50083-9) to other devices. For VBR (SMPTE 2022-3), only SPTS reception is possible. For CBR (SMPTE 2022-2) - SPTS and MPTS. The module can be used to build various digital broadcasting equipment to enable it to receive transport streams over an Ethernet network, and also to create various gateways (IP-to-ASI, etc.). The transport stream from the module can be transmitted to the DVB-S / -S2 / -C / -T - / -T2 modulators, DVB TS-to-ASI converters and others.

Control, monitoring and adjustment of the module parameters is carried out using a PC via the Ethernet interface using a specialized program. The module's internal software is updated via Ethernet.

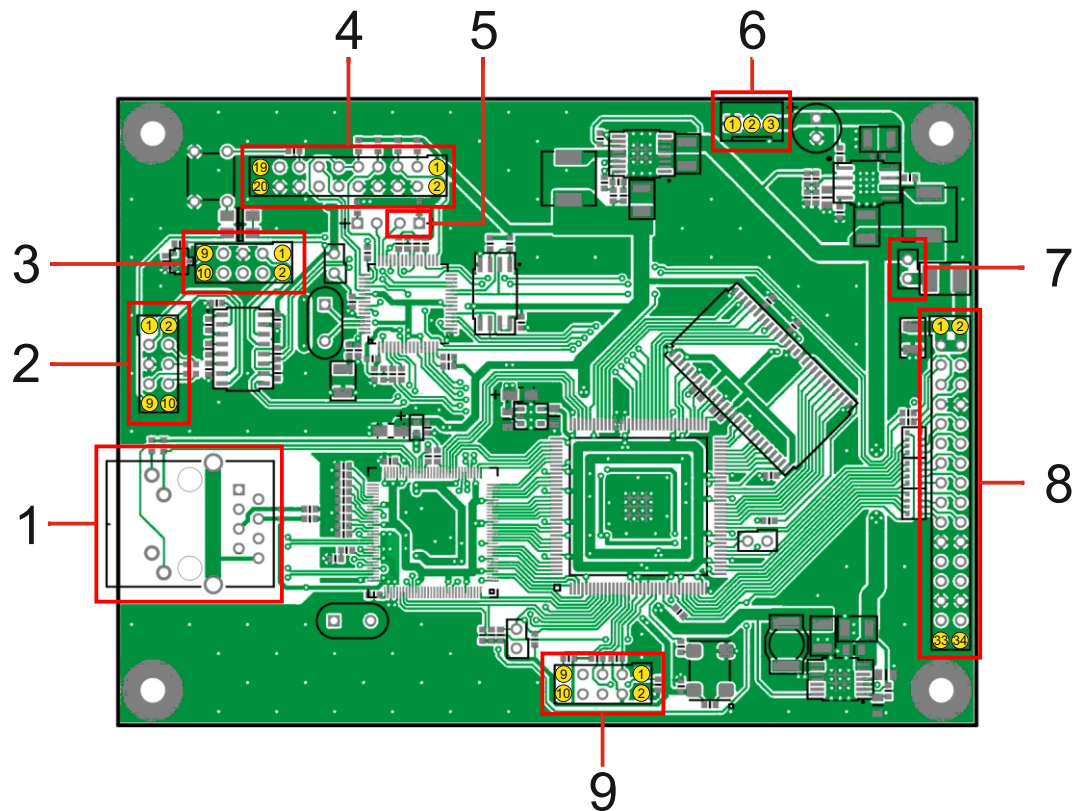
To build multi-channel devices, it is possible to connect via RS232 to the control module, while still retaining the ability to use all the functions of the IP receiver, including updating the internal software. This mode ("Slave") is activated by means of a jumper intended for this purpose. All the settings of the IP receiver in the "Slave" mode are made through the control module.

There is a modification module with an additional port RS232, designed to control another paired device (for example, a modulator). In the "Master" mode via the Ethernet port of the IP receiver, you can access the settings of this paired module. Presence of "Master" / "Slave" control modes substantially increases flexibility when creating equipment from modules in various combinations.

Main technical characteristics

Input interface	10/100 Base-T, Full/Half Duplex
Negotiation with the connected equipment	Auto/manually
Input Connector Type	RJ-45
Maximum input bitrate	100 Mbit/s
Supported input protocols	UDP/RTP, Unicast/Multicast
Number of DVB-transport packets in one Ethernet frame	1...7
SMPTE encapsulation standards	2022-2, 2022-3
Output interface	Synchronous parallel interface
Maximum output bitrate	99 Mbit/s
Management Interfaces	Ethernet, RS-232
Supply voltage	8...18 V
Consumed power, no more than	3 W
Board dimensions	110x80 mm

Module Connectors



- 1 - RJ-45 - Ethernet interface for receiving stream and communication with a PC
- 2 - PLD-10 - Management of the module (connection of the control module), RS-232 (115200, 8N1)
- 3 - PLD-10 - connect a compatible module, conjugate with this converter, RS-232
- 4 - PLD-20 (CPU programming - service)
- 5 - Jumper for "Master" / "Slave" control modes
- 6 - Power supply module (8 ... 18 VDC, 3 W)
- 7 - The jumper for power supply (+ 5.0 V) to the mating module via the transport stream connector
- 8 - PLD-34 - Transport stream output
- 9 - PLD-10 - FPGA debugging port

Pin Assignment

Connector 2 - management module, RS-232

1	Not connected	2	TxD
3	RxD	4	Not connected
5	GND	6	Not connected
7	Not connected	8	Not connected
9	Reset	10	GND

Connector 3 - conjugated module control, RS-232

1	Not connected	2	RxD
3	TxD	4	Not connected
5	GND	6	Not connected
7	Not connected	8	Not connected
9	Reset ext. device	10	GND

Jumper 5 - "Master"/"Slave"

Closed - enabled mode "Slave" - work with the control module
 Open - enabled mode "Master" - control via own Ethernet port and the ability to control another module

Connector 6 - module power supply

1	GND
2	GND
3	8...18 VDC, 3 W

Jumper 7 - power for the conjugated module

Closed - supply (+ 5.0V) is supplied to the transport stream connector
 Open - power (+ 5.0 V) is not supplied

Connector 8 - transport stream output

1	+ 5,0 V	2	+ 5,0 V
3	+ 5,0 V	4	+ 5,0 V
5	Not connected	6	Not connected
7	Not connected	8	Not connected
9	GND	10	GND
11	TSCLK	12	PSYNC
13	Not connected	14	DVAL
15	TSDATA 6	16	TSDATA 7
17	TSDATA 4	18	TSDATA 5
19	TSDATA 2	20	TSDATA 3
21	TSDATA 0	22	TSDATA 1
23	GND	24	GND
25	Not connected	26	Not connected
27	Not connected	28	Not connected
29	GND	30	GND
31	Not connected	32	Not connected
33	Not connected	34	Not connected