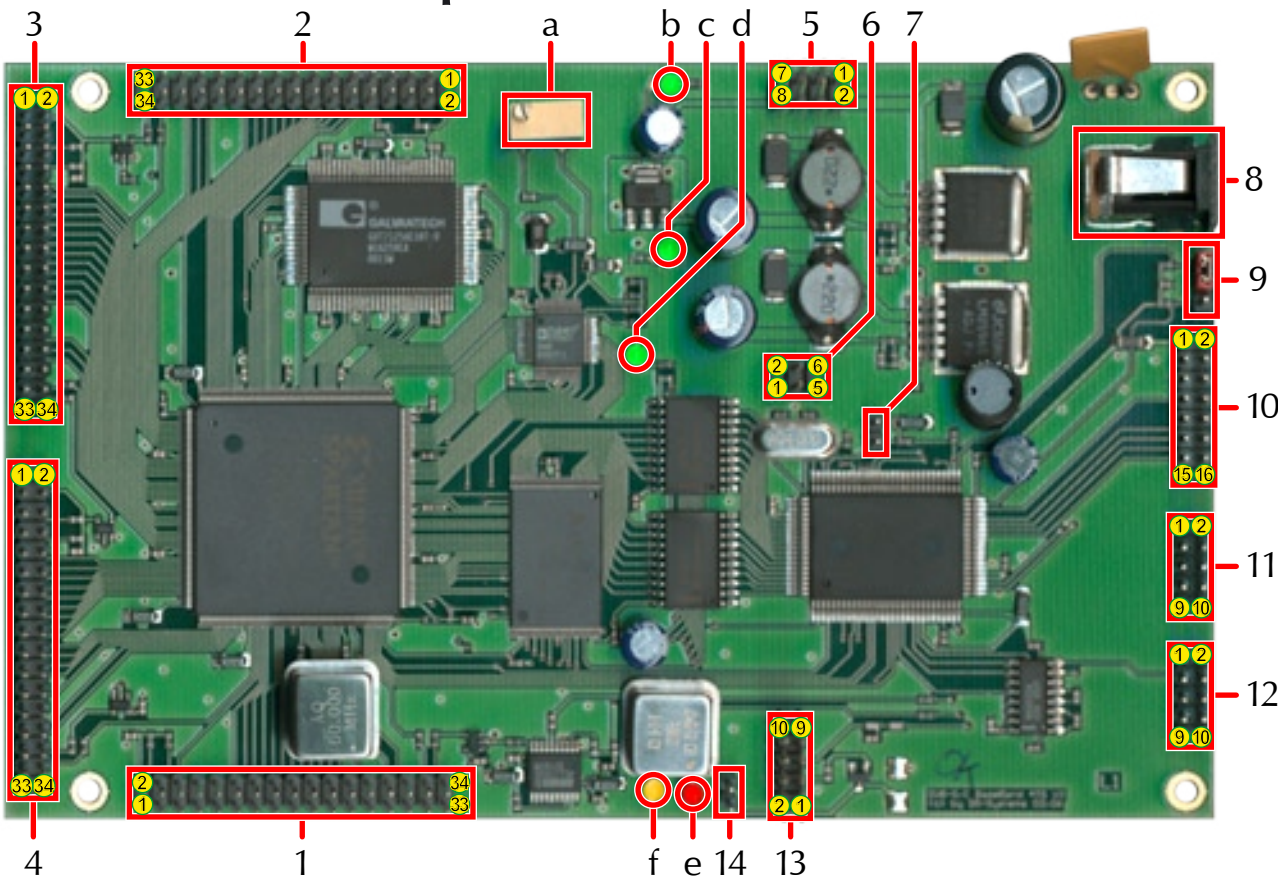
1 Connector description



board dimensions: 160×100 mm

Connectors	1–4	Transportstream 1–4 You can use Encoders, DVB-Tuners (S/C/T), Ethernet-Interface and ext. TS-Inputs on the connectors 1 and 2, the connectors 3 and 4 are only for encoders.
	5	Connection to I/Q-Modulator (diff. IQ)
	6	Connection to I/Q-Modulator (PLL-Control)
	7	ext. Reset
	8	Power Input (10–24 V DC) Attention: positive inside!
	9	Mode switch the shown position is *run*, other position is *program*
	10	optional
	11	Serial Interface COM1 RS232 (19k2 8N1)
	12	Serial Interface COM2 RS232
	13	Connection to I/Q-Modulator
	14	ext. PTT

LEDs and Switches	a	Potentiometer for adjusting the I/Q-Balance
	b	Voltage 3.3 V ok
	c	Voltage 5.0 V ok
	d	Voltage 2.5 V ok
	e	***On:*** Microcontroller executes firmware ***Blinking:*** Encoder-Firmware is being loaded to all encoder boards ***Off:*** Successful start of encoder software ***On after off:*** one or more encoders couldn't start Note: Encoders can be connected only to the TS-Input, for which these have been programmed! If a tuner/ext. Clock is connected instead an encoder, the LED will be continuous on after switching on the device.
	f	lightens up after loading and starting code

2 Pin description

1-4 – TS Input			
1	+5.0 V	2	+5.0 V
3	+5.0 V	4	+5.0 V
5	SDA	6	not connected
7	SCL	8	xReset
9	GND	10	GND
11	TSCLK	12	PSYM
13	not connected	14	DVAL
15	TS 6	16	TS 7
17	TS 4	18	TS 5
19	TS 2	20	TS 3
21	TS 0	22	TS 1
23	GND	24	GND
25	SD Out (f. E.*)	26	PLL THR (f. E.*)
27	SDCLK (f. E.*)	28	SD In (f. E.*)
29	GND	30	GND
31	MCLK 27 MHz	32	ASCLK (f. E.*)
33	RST Vid. Codec	34	not connected

f.E.* = for Encoders

5 – IQ-Modulator (U_B)			
1	GND	2	V_{in}
3	GND	4	V_{in}
5	GND	6	5.0 V
7	GND	8	5.0 V

6 – IQ-Modulator (diff. IQ)			
1	Q_{out} A	2	I_{out} A
3	Q_{out} B	4	I_{out} B
5	GND	6	GND

13 – IQ-Modulator (PLL-Ctrl.)			
1	PLL-Clk	2	PLL-Data
3	PTT	4	PLL-Ena
5	PLL-Lock	6	GND
7	Bandswitch 2	8	GND
9	Bandswitch 1	10	GND

10 – optional			
1	+5.0 V/500 mA	2	SDA TS0
3	SCK 1	4	SCL TS0
5	R_{Oset}	6	Power off
7	P 81	8	DA 0
9	DA 1	10	AN 7
11	AN 6	12	AN 5
13	AN 4	14	SCK 0
15	ADTG	16	GND

11/12 – COM1/COM2			
1	con. with 4+6	2	TxD
3	RxD	4	con. with 1+6
5	GND	6	con. with 1+4
7	RTS	8	CTS
9	not connected	10	GND

Errata/corrections:

05.05.2006 Turned numberation of con. 3, 4, 5, 10, 11 and 12 by 180° in picture

26.03.2008 Coloured TS connector