



Connectors	1	Power Input	Power Input 7–24 V=
	2	8pin Header	Optional f. ext. Upconverter control
	3	SMA	RF out 50 Ω
	4	10pin Header	RS232 (115k2, 8N1)
	5	10pin Header	I ² C-Bus
	6	34pin Header	TSIN

LEDs and switches	a	LED green	+5,0 V
	b	LED green	+3,3 V
	c	LED green	Status
	d	LED green	Status
	e	2pin Header	MCU Prog if set
	f	LED green	+2,5 V



DVB MODÜLATÖR

2 Pin description

1 – Power input	
1	VIN 7–24 V=
2	GND
3	GND

2 –opt.ext.Upconv.control			
1	GND	2	16 MHz Ref.
3	PTT	4	PLL-ENA
5	PLL Lock	6	PLL-CLK
7	+5,0 V	8	PLL-DATA

4 - RS232			
1	ext. mode	2	Control Tx D
3	Control Rx D	4	Data Rx
5	GND	6	Data Tx
7	con. with 8	8	con. with 7
9	Reset	10	GND

5 – I ² C-Bus			
1	+5,0 V	2	+5,0 V
3	SDA	4	SDA
5	SCL	6	SCL
7	Reset-In	8	IRQ
9	GND	10	GND

e – Mode jumper			
	open		run mode
	closed		program mode

6 – TSIN			
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 B	12	PSYM B
13	not connected	14	DVAL B
15	TS B6	16	TS B7
17	TS B4	18	TS B5
19	TS B2	20	TS B3
21	TS B0	22	TS B1
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

3 Specifications

Board dimensions	100×80 mm			
Board weight	<50 g			
Voltage	7–24 V=			
Power consumption	~5 W			
TS Input	Raw TS input: Clock direction and Clock edge switchable Tuner TS input: DVB-S/C/T NIM Encoder input			
RF Frequency	board type	low band	high band	step size
	Mod-0*	575–712 MHz	1150–1425 MHz	250 kHz
	Mod-1	500–637 MHz	1000–1275 MHz	250 kHz
	Mod-2*	400–565 MHz	800–1125 MHz	250 kHz
	Mod-3	388–512 MHz	775–1025 MHz	250 kHz
	Mod-4*	315–455 MHz	625– 910 MHz	250 kHz
	Mod-5	288–375 MHz	575– 750 MHz	250 kHz
	Mod-6	250–330 MHz	500– 660 MHz	250 kHz
	*stock articles			



DVB MODÜLATÖR

DVB-S	Constellation	QPSK
	Modulation Error Rate (MER)	>25 dB
	FEC	1/2, 2/3, 3/4, 5/6, 7/8
	Symbolrate	1-45 MSymbol/s in 1 kSymbol-steps
	RFout	~110 dB μ V@50 Ω
DVB-C	Constellation	QAM16,QAM32,QAM64,QAM128,QAM256
	Modulation Error Rate (MER)	36dB
	Symbolrate	1000-7000 kSymbol/s in 1 kSymbol-steps
	RFout	~107 dB μ V@50 Ω
DVB-T	Constellation	QPSK,QAM16,QAM64
	Modulation Error Rate (MER)	36dB
	FEC	1/2,2/3,3/4,5/6,7/8
	Guard Interval	1/4,1/8,1/16,1/32
	IFFT Mode	2k
	Bandwidth	5, 6, 7 and 8 MHz
	RFout	>100 dB μ V@50 Ω
ATSC	Constellation	8VSB
	Bandwidth	6 MHz
	RFout	~107 dB μ V@50 Ω