PS__maxi
Specification:

Input/Output Impedance:	50 Ω
In-band Input/Output VSWR	2:1
In-band RF Power Handling	5 Watt (input)
Out-band RF Power Handling	Up to 40 Watt
In-band Second Order IP	+80 dBm(input)
In-band Third Order IP	+40 dBm (input)
Center Frequency Drift:	±80 PPM/ºC
Tuning Control	Serial or Parallel
Tuning Speed	10 µS
DC Power Consumption (Static)	5V @800mA
Shape Factor (30 dB/ 3 dB)	7 typical
Operating TemperatureRange	-40°C to +85°C
Size:	97x64x38 mm
Weight:	420 g
RF Connection	SMA

PS_maxi series of tunable filters provides improved passband performance (reduced insertion loss for a given bandwidth) in a slightly larger package. The product line includes several standard designs in various frequencies to support almost any application.

PS30S filters' specification

FrequencyRange	#	Bandwidth (3 dB), %	Insertion Loss, dB	Shape factor (30 dB)		
				Overall	Low Side	High Side
1.5-6.7 MHz	7	6.5/7.5	2.6/3.0	5.5/6.1	6.3/6.8	4.8/5.6
	5	4.6/5.5	5.0/5.9	5.8/6.1	6.5/7.0	4.8/5.4
	3	2.5/3.5	5.6/6.8	5.8/6.2	6.8/7.3	4.8/5.3
6.7-30 MHz	7	6.5/7.5	2.4/3.0	5.5/6.1	6.5/7.3	4.8/5.4
	5	4.6/5.5	5.0/5.9	5.8/6.1	6.8/7.3	4.4/4.9
	3	2.5/3.5	5.6/6.6	5.8/6.2	6.8/7.1	4.6/5.0
30-96 MHz	7	6.5/7.5	2.4/3.0	5.5/6.1	6.5/7.0	4.8/6
	5	4.6/5.5	5.0/5.9	5.8/6.1	6.8/7.3	4.8/4.9
	3	2.5/3.5	5.6/6.5	5.8/6.2	6.8/7.1	4.8/5.0
96-262 MHz	7	6.5/7.5	2.5/3.0	6.5/7.1	8.2/9.2	4.8/5.8
	5	4.6/5.5	4.9/6.3	6.0/7.2	7.0/7.2	5.0/5.5
	3	2.5/3.5	5.8/7.0	6.0/6.2	6.9/7.2	4.9/5.2
262-512 MHz	7	6.5/7.5	2.6/3.0	6.5/7.1	8.5/9.5	4.7/5.5
	5	4.6/5.5	4.3/5.2	6.1/6.3	7.0/7.4	5.1/5.2
	3	2.5/3.5	5.1/6.2	5.9/6.0	6.6/6.7	5.2/5.4

Note: table values are shown as average/maximum.

Pinout & Ratings

PIN #	Reference designator	Description	Notes
1	A2	Tune Bit 2	Active: 5V; Inactive: 0V
2	A3	Tune Bit 3	Active: 5V; Inactive: 0V
3	A4	Tune Bit 4	Active: 5V; Inactive: 0V
4	A5	Tune Bit 5	Active: 5V; Inactive: 0V
5	A6	Tune Bit 6	Active: 5V; Inactive: 0V
6	A7	Tune Bit 7	Active: 5V; Inactive: 0V
7, 9, 11, 12	GND	Digital/RF Ground	—
8	VCC	+5V Power Supply Input	4.75 to 5.25V @ 800mA
10	N/C	No Connect	—
13	STB	Strobe	Active: 0V; Inactive: +5V
14	A0, CLK	Tune Bit 0, Serial Clock	Active: 5V; Inactive: 0V
15	A1, DI	Tune Bit 1, Serial Data Input	Active: 5V; Inactive: 0V

Serial interface description

Serial interface consists of 3 signals: CLK (clock), DI (data input), STB (strobe). Data input is 11 bits code. First 8 bits determine the tuning frequency and the last 3 bits determine the frequency band.

Parallel interface description

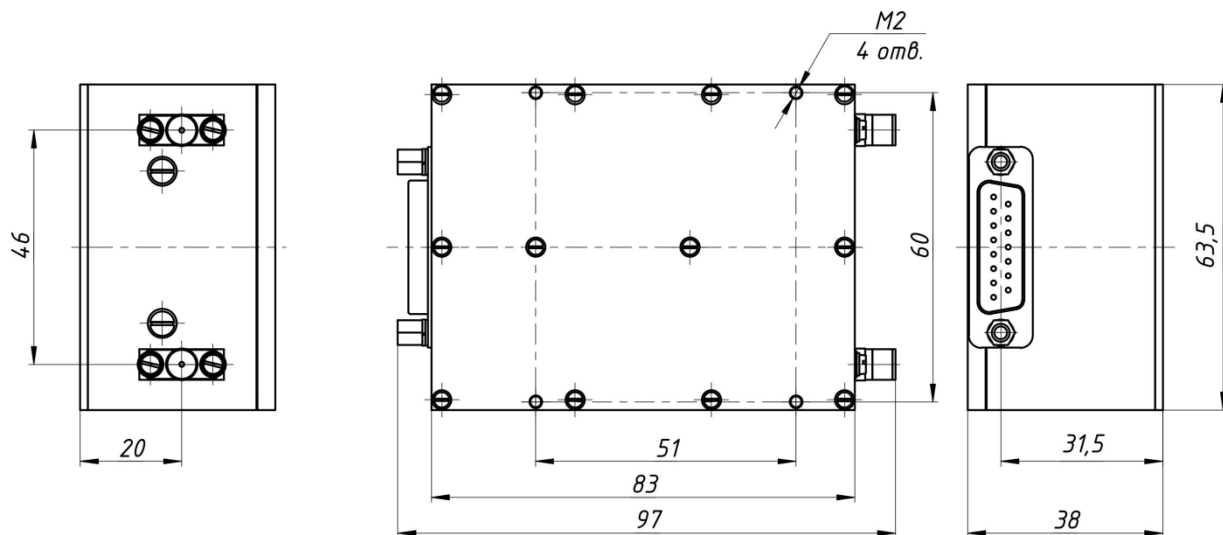Serial interface consists of 9 signals: A0-A7 (tuning frequency code) and STB (strobe).

Tuning frequency code

Tuning frequency code is calculated by X_{10} conversion into binary code. X_{10} is calculated by the formula:

$$X_{10} = \left(\frac{f_0 - f_l}{f_h - f_l} \right) \times 250 \, ,$$

f_0 — tuning frequency; f_l — low frequency of the band; f_h — high frequency of the band.

Mechanical Outline

M2
4 отв.

46

20

51

83

97

60

63,5

31,5

38

Note: sizes are shown in millimeters.