



FSP-SG-10

**Beacon Transmitter 10200
to 10400 MHz • 200mW**

Typical Applications

The FSP-SG-10 is ideal for:

- Vsat Radios
- Microwave point-to-point radios
- Military end-use
- Phase array applications
- FMCW Radar systems

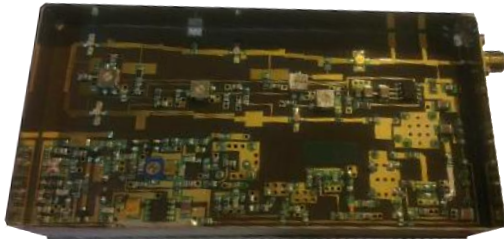


Table 1. Specifications

Input Power	
Supply voltage	+12 ... 14 V DC
Quiescent current	typ. 0.38 A
Output Specifications [@ 25° C]	
Frequency Range	10200..10400 MHz
Output power	200 mW (typ.)
Multiplication factor	96
Frequency stability	0.1 ppm (max.)
CW keying (telegraphy)	A1, F1
CW input connector	feed-through capacitor
Output connector	SMA-female
Output Impedance	50 ohms
SSB Phase Noise.	-90dBc/Hz @ 10KHz
Mechanical	
milled aluminum - Grounded	
138 x 62 x 36 [mm]	
Environmental	
Operating Temperature	-20° to 50° C
Storage Temperature	-40° to 50° C
MTBF	
200,000 hours	

Features

- Low-jitter clock generator for high frequency stability
- Helical filters and micro strip filters for high spurious and harmonic rejection
- FM Modulation

General Description

The FSP-SG-10 transverter is a single board construction on RO4003 substrate. The receiver has a noise figure of 1.2 dB and the transmitter achieves an output power of more than 200mW. The IF is changeable and the spurious rejection is better than 40 dB. The IF can be selected just by change of the crystal output in the XO. Then the spurious rejection is even better than 50 dB.

Everything (TX, RX, LO, IF-Switch and T/R-control) is on a single board housed in a 138 x 62 x 36 mm large box from tinplate. Tuning is required only for the two cavity resonators, the four helix band filter in the LO-chain and the bias currents of the TX/RX amplifiers.

The restricted tuning range of the helix filters make “false“ resonances not possible.

Important notes:

Please notice the following:

- **The technical specifications refer to room temperature.**
- **The recommended combination of heat sink and fan(s) is only specified for an ambient temperature of 25 °C.**
- **Further information about dimensioning of heat sinks is available on our FAQ site**

Selling this equipment only to state enterprises or companies that have regulatory authority is possible.