



## RFS7: Low Phase Noise Rubidium Oscillator



### Description

The RFS7 is a high-quality, low-cost rubidium oscillator module. Intended for OEM applications, the RFS7 provides a very accurate 10 MHz output signal.

A special feature of the RFS7 is its small size and low power consumption. Its size is 25 x 88 x 125 mm and operates from 15V with a typical power consumption of 15 to 36W.

Many options are available for the RFS7.

### Specifications

#### Output

- Output frequency 10 MHz sine wave
- Amplitude: + 7 dBm (+10 dBm typical)
- Phase noise (SSB) < -100 dBc/Hz (10 Hz), < -125 dBc/Hz (100 Hz), < -145
- Harmonics: -30 dBc. Spurious - 60 dBc.
- Accuracy at shipment  $\pm 5 \times 10^{-11}$
- Aging (after 30 days) <  $2 \times 10^{-11}$  (24 hours), optional <  $4 \times 10^{-12}$  (24 hours)
- Short-term stability <  $1.4 \times 10^{-11}$  (1 s), <  $5 \times 10^{-12}$  (10 s), <  $2 \times 10^{-12}$  (100 s)
- Frequency retrace  $\pm 5 \times 10^{-11}$
- Settability <  $1 \times 10^{-11}$
- Trim range 0 – 5V >  $2 \times 10^{-7}$
- Warm-up time 5 minutes to lock.

### Electrical

- Input voltage +15 VDC
- Current 2.5 A (warm-up), 1 A @ 25 °C

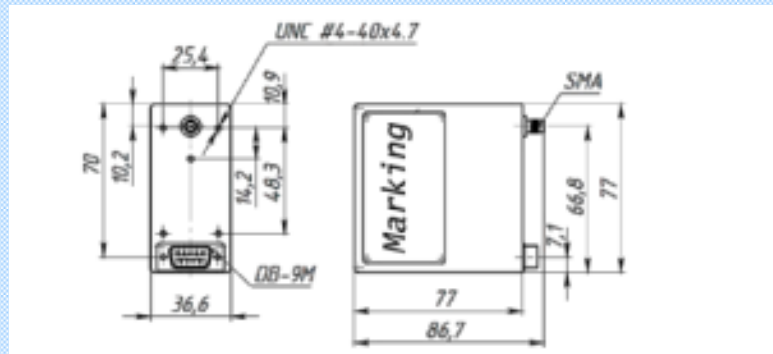
- Lock Monitor output

## Environmental

- Operating temperature  $-5^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- Temperature stability  $\pm 3 \times 10^{-10}$
- Shock g/ms 40/11 $\pm$ 4
- Humidity 80%

## Miscellaneous

- Size: 25 mm x 88 mm (wide) x 125 mm
- RoHS: Compliant
- Lamp Life: Up to 20 years



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Specifications subject to change without notice (070122)