

Miniature Rubidium Oscillator

- ❑ 1PPS Discipline I/O Sync
- ❑ 12V dc 8W
- ❑ High Performance Reference, exhibits excellent drift per hour and per day



The E10-MRO is a compact cost effective Miniature Rubidium Oscillator Frequency Standard that maintains the high time and frequency accuracy demanded in applications such as telecoms, aviation, nautical and precision test and measurement.

Features

- RS232 Interface
- Low phase noise to -165dBc/Hz option
- Ageing: 5×10^{-10} /year
- Stability 5×10^{-12} /year
- 10MHz Output

Benefits

- Simple integration into system
- Fits 1u case
- Low failure risk
- 2 year warranty

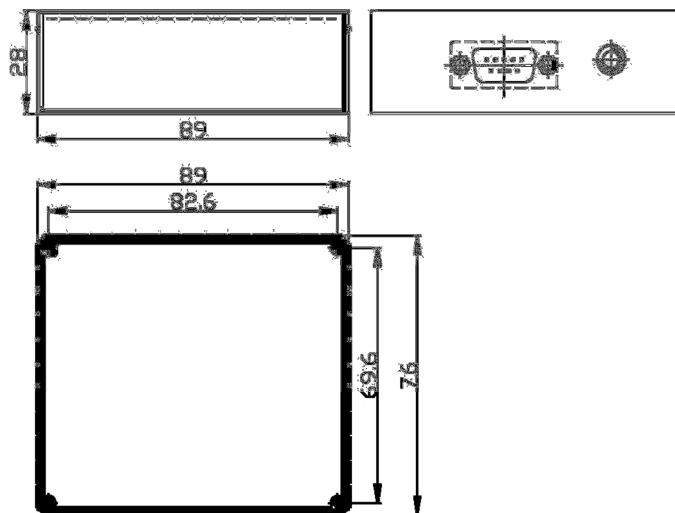
Applications

- Telecom Network synchronisation
- Frequency Calibration
- Broadcast
- Cellular wireless Base stations

Specification

Output	10MHz
Optional Outputs	Consult factory
Accuracy	$\pm 5 \times 10^{-11}$ at shipment @25°C
Aging	5x10 ⁻¹² /day 5x10 ⁻¹¹ /month
Retrace) $\pm 3 \times 10^{-11}$
Short Term Stability	1s 5x10 ⁻¹¹ 10s 1.6x10 ⁻¹¹ 100s 5x10 ⁻¹²
Phase Noise	dBc/Hz 10Hz -85dBc 100Hz -125dBc 1kHz -140dBc
Input Power	8W at 12V@25°C, Max 2.5A
Input Voltage Range	12 \pm 0.5Vdc
Warm-up	5 minutes to lock @ 25°C
Frequency Control	Internal trim range *2x10 ⁻⁹ (trimpot) External trim range *2x10 ⁻⁹ (0V~5V)
Temperature	Operating -20°C to +50°C Temperature 2x10 ⁻¹⁰ Coefficient (ambient) (-20°C to 50°C) Storage -55°C to +85°C
MTBF	100,000 hours
Connector	DB-9 Connector, SMA
Size	89 × 76 × 28 (mm ³) (190cc)
Weight	0.25kg max
Warranty	2 years
Low Noise Option E10-MRO LN	This high performance version exhibits lower phase noise and higher short term stability. A 1PPS locking module is included (see A6-1PPS). Customers may specify lower phase noise than above.

Dimensions



Connector Interface

- J1: SMA, RF OUTPUT J2: DB-9
 1: lock monitor(bit) 2&4: dc return/ground
 3: locking signal 5: ext C-field (0~5V)
 6, 8 & 9: NC (Used for RS232 option)
 7: +12V