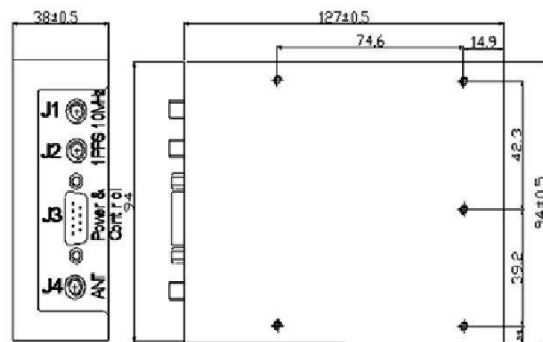


GPS Disciplined Rubidium Oscillator

- ❑ Low Phase Noise
- ❑ High Short Term Stability
- ❑ RS232C Digital Monitor & Control



The E10-GPS Disciplined Rubidium Oscillator is the most cost effective way to maintain the high time & frequency accuracy required for demanding applications for the OEM manufacturer. This Rubidium Oscillator provides the precision synchronization required by base stations, optical network nodes, and high-speed digital networks.

Features

- 12 dc operation
- Low Distortion
- 7 minutes to lock
- 10MHz Output
- 1PPS Output

Benefits

- Cost effective GPS Disciplined Rubidium
- 2 year warranty
- GPS Traceable Standard
- Calibration free
- Quick & simple to install

Applications

- Internal Frequency Reference
- Telecom Network Synchronisation
- Cellular Wireless Base Stations

Specification

Accuracy	Disciplined to GPS or to EXT. 1PPS	Frequency	$\leq 1 \times 10^{-12}$ (after disciplined for one day, 24 hours average, 25°C)
		Time	$\pm 100\text{ns}$ (relative to GPS or Ext. input, 25°C)
Short Term Stability	Holdover (no GPS)	Frequency	$\leq 5 \times 10^{-12}/\text{day}$
		Time	$\leq 1 \mu\text{s}/24 \text{ hours}$
Phase Noise			$\leq 3 \times 10^{-11}$ @1s $\leq 1 \times 10^{-11}$ @10s $\leq 3 \times 10^{-12}$ @100s
Harmonics			< -100dBc@10Hz
Spurious			< -130dBc@100Hz
Temperature Coefficient			< -140dBc@1kHz
Time to Lock (@25°C)			< -40dBc
Earth Magnetic Field Sensitivity			< -80dBc
Retrace			$\pm 3 \times 10^{-10}$ over -20°C ~ +50C
Output			< 7 min
Input			$\leq 2 \times 10^{-11}$
Mode of Operations			$\leq 2 \times 10^{-11}$
Remote Setting Via Serial Port Software for PC			1×10MHz Sine wave (7~13)dBm/501 SMA 1×1PPS TTL/501 SMA PC channel (RS232) for Time & Locality & Other Data and Frequency Control
Power Supply			GPS Antenna/501 SMA
Input Voltage			Ext. 1PPS/501 BNC
Power Dissipation			A. Disciplined to GPS B. Disciplined to external 1PPS C. Auto Select: first priority to external 1PPS and second to internal GPS receiver.
Dimensions			Export UTC time.
Weight			Export the location of the local place, including longitude, latitude and length.
Operating Temperature			Export the model of the Atomic Oscillator.
Storage Temperature			Export the version number of the software.
Humidity			Adjust the accuracy of 10MHz.
MTBF			12VDC
			22W@ Warm-up, 9W@ Steady (25°C)
			$\leq 127^{\pm 0.5} \times 94^{\pm 0.5} \times 38^{\pm 0.5}$
			< 0.6kg
			-40°C ~ +60°C
			-40°C ~ +70°C
			$\leq 90\%$
			$\geq 100000\text{h}$

Mechanical & Electrical

- J1 (SMA): 10MHz output
- J2 (SMA): 1PPS output
- J3 (9 PIN D-SUB):
 - Pin1 +12V Pin2 GND
 - Pin3 Lock Signal
 - Pin4 1PPS_Ext
 - Pin5 GND
 - Pin6 TxD
 - Pin7 Lock TAG
 - Pin8 1PPS
 - OUT_GPS Pin9 RxD
- J4 (SMA): GPS Antenna