

PRELIMINARY



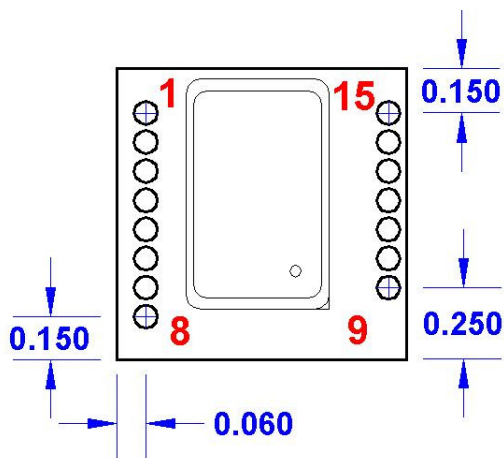
- The Pletronics GPS-TCXO Series is a high precision GPS-disciplined reference oscillator.
- The GPS-TCXO utilizes a high precision TCXO oscillator, synchronized to the GPS atomic clock.
- The GPS-TCXO offers unmatched price and performance over traditional GPS-OCXO reference solutions.
- Allan Deviation $< 2 \times 10^{-11}$ at 25°C.
- The GPS-TCXO has a standard LVCMOS output.
- Power is 3.3v.
- The GPS-TCXO has very low power consumption due to its high performance TCXO.
- An ideal solution for low power applications.
- Very low phase noise.
- Available in 10 MHz standard reference oscillator frequency. Contact Pletronics for additional frequencies.
- Evaluation modules are available.

TYP. ELECTRICAL SPECIFICATIONS:	
Module Specification:	
1 PPS Accuracy	±75ns to UTS RMS (1-Sigma) GPS Locked
1 PPS Output	3.3VDC CMOS
Serial Control	GPS NMEA Output
GPS Frequency	L1, C/A 1574MHz
GPS Antenna	Active or Passive
GPS Receiver	50 Channels, Mobile, SBAS WAAS, EGNOS, MSAS capable
Sensitivity	Acquisition -142 dBm, Tracking -158 dBm
GPS TTFF	Cold Start—<45 sec, Warm Start—1 sec, Hot Start—1 sec
ADEV	10Ks $< 5 \times 10^{-12}$ (TCXO, GPS Locked, 25°C, no motion)
TTL Alarm Output	GPS LOCK indicator, GPS Lock output
Warm Up Time / Stabilization Time	< 3 min at + 25°C to 1E-08 Accuracy
Supply Voltage (Vdd)	3.3V Single-Supply only (5V internally generated and filtered)
Power Consumption	< 0.6W with TCXO
Operating Temperature	0°C to +60°C
Storage Temperature	-45°C to +85°C
Additional Features	External 1PPS input, status LEDs, full NMEA
Oscillator Specification (TCXO):	
Frequency Output	10MHz CMOS 3.3Vpp (5.0Vpp optional)
10MHz Retrace	±2E-08 After 1 Hour @ +25°C
Frequency Stability Over Temperature (Unlock Condition)	±7.5E-08 (TCXO)
Output Amplitude	3.3Vpp CMOS, (5.0Vpp optional)
Connections:	
Connector Type:	
1PPS Output, 10MHz Output, power, system status, NMEA, 1PPS in, antenna input	100 mil spacing on pins, can be soldered, or plugged into a socket, gold-plated pins

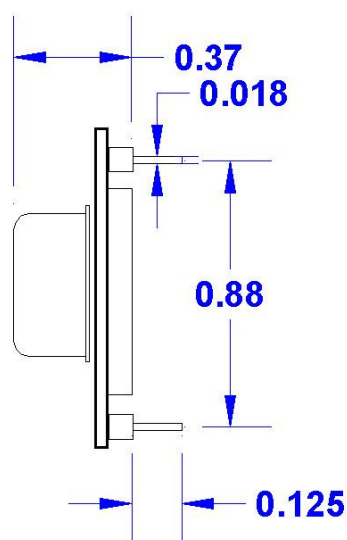
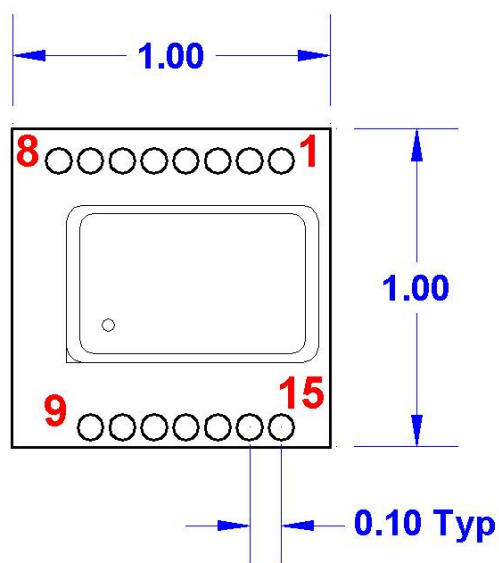
GPS-TCXO Series

GPS Synchronized TCXO Module

March 2014



Pad	Function	Note
1	Ground	
2	10 MHz Out	10 MHz CMOS Output
3	Lock OK	3.3V CMOS Output
4	1 PPS Output	3.3V CMOS Output
5	1 PPS Input	3.3V to 5.0V CMOS (Rising Edge)
6	+ 5V Output	< 100 ma
7	Ground	
8	+3.3V VDO In	
9	Ground	
10	Antenna Input	Module provides +5.0V Power Supply for Active Antenna
11	Ground	
12	NMEA Transmit	NEMA-0183 GGA format GPS data output
13	1PPS Input	High—External PPS, Low Internal PPS
14	N/C	No external Connection Allowed
15	N/C	No external Connection Allowed



Note: All dimensions are in inches

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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