

LC_XO TCXO Low Cost 1x1 inch GPSDO Module Spec - gen-2

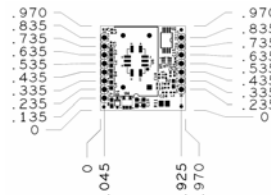


- 0.97 X 0.97 X 0.42 inch Module
- TCXO-No Crystal Warmup required
- 50 Channel WAAS GPS Receiver
- Very Low Power TCXO
- PRELIMINARY SPECIFICATION

TYP. ELECTRICAL SPECIFICATIONS:

Module Specification:															
1 PPS Accuracy	±50ns to UTC RMS (1-Sigma) GPS Locked														
Holdover Stability	<±35us over 3 Hour Period @+25°C (No Motion, No Airflow)														
1 PPS Output	3.3VDC CMOS														
Serial Control	SCPI-99 TTL Level, 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 <2E-012 (GPS Locked, 25°C, no motion, no airflow)														
TTL Alarm Output	GPS LOCK indicator														
Warm Up Time / Stabilization Time	<10 min at +25°C to 1E-09 Accuracy														
Supply Voltage (Vdd)	3.3V Single-Supply only (5V internally generated and filtered)														
Power Consumption	0.4W with TCXO														
Operating Temperature	-10°C to +75°C, -40C to +85C optional														
Storage Temperature	-45°C to +85°C														
Additional Features	Firmware field-upgradable, external 1PPS input, status LEDs, compatible to GPSCon, SNTp, GPSD, and Z38xx software applications, full NMEA														
Oscillator Specification (TCXO):															
Frequency Output	10MHz CMOS 5Vpp (3.3Vpp optional)														
10MHz Retrace	±2E-08 After 1 Hour @ +25°C														
Frequency Stability Over Temperature (Unlock Condition)	±7.5E-08 (TCXO, 0C to +60C)														
Output Amplitude	5Vpp CMOS														
TCXO Warm Up Time	Instant-on, no warmup period required														
Phase Noise (with 33uF or larger cap on 5V_Output pin 6)	<table border="1"> <thead> <tr> <th colspan="2">TCXO</th> </tr> </thead> <tbody> <tr> <td>1Hz</td> <td>-65dBc/Hz</td> </tr> <tr> <td>10Hz</td> <td>-102dBc/Hz</td> </tr> <tr> <td>100Hz</td> <td>-132dBc/Hz</td> </tr> <tr> <td>1kHz</td> <td>-148dBc/Hz</td> </tr> <tr> <td>10kHz</td> <td>-152dBc/Hz</td> </tr> <tr> <td>100KHz</td> <td><-155dBc/Hz</td> </tr> </tbody> </table>	TCXO		1Hz	-65dBc/Hz	10Hz	-102dBc/Hz	100Hz	-132dBc/Hz	1kHz	-148dBc/Hz	10kHz	-152dBc/Hz	100KHz	<-155dBc/Hz
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Connections:															
1PPS Output, 10MHz Output, power, serial communication, system status, NMEA, 1PPS in, ISP mode enable, antenna input	Connector Type: 100 mil spacing on pins, can be soldered, or plugged into a socket, gold-plated pins														

LC_XO TCXO Gen2, PN: 1009302-g2



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LC_XO PINOUT DESCRIPTION:

