

LC-XO-Plus Low Cost Desktop GPSDO Module Kit Specification



- 5.5cm x 8.5cm x 3.0cm enclosure
- Complete kit with accessories
- 50 Channel WAAS GPS Receiver
- 10MHz, 1PPS, Event, USB outputs
- PRELIMINARY SPECIFICATION

TYPICAL ELECTRICAL SPECIFICATIONS:

Module Specification:															
1 PPS Accuracy	±50ns to UTC RMS (1-Sigma) GPS Locked														
Holdover Stability	<±50us over 3 Hour Period @ +25°C (No Motion)														
1 PPS Output	3.3VDC CMOS														
Serial Control	USB serial port with SCPI-99 commands, GPS NMEA Output														
GPS Frequency	L1, C/A 1574MHz														
GPS Antenna	Active or Passive, 5V supplied by unit														
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 <5E-012 (GPS Locked, 25°C, no motion)														
TTL Alarm Output	GPS LOCK and Event indicator														
Warm Up Time / Stabilization Time	<5 min at +25°C to 1E-08 Accuracy														
Supply Voltage (Vdd)	5V via USB connector, or 4V to 5.25V on optional header pins														
Power Consumption	<0.5W														
Operating Temperature	-10°C to +65°C														
Storage Temperature	-45°C to +85°C														
Additional Features	Firmware field-upgradable, status LED, compatible to GPSCon, SNTP, GPSD, and Z38xx software applications, NMEA output														
Oscillator Specification:															
Frequency Output	10MHz CMOS 5Vpp														
10MHz Retrace	±2E-08 After 1 Hour @ +25°C														
Frequency Stability Over Temperature (without GPS lock)	±75 parts per billion from 0°C to +60°C														
Output Amplitude	5Vpp CMOS														
Warm Up Time	< 1 min @ +25°C														
Phase Noise	<table border="1"> <thead> <tr> <th>Offset</th> <th>Phase Noise</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>	Offset	Phase Noise	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, USB, TTL alarm status, antenna input. MMCX, Mini-USB, and Screw-In header block	Supplied Accessories:														
	GPS antenna, two MMCX cables, USB power supply, USB cable														

LC-XO-PLUS GPSDO KIT:

MADE IN USA



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