

Data Sheet

VIAVI

LC-XO Plus

Low-Cost Desktop GPSDO Module Kit

Typical Electrical Specifications

Module Specifications	
1 PPS Accuracy	± 50 ns to UTC RMS (1-Sigma) GPS Locked
Holdover Stability	$< \pm 50$ μ s over 3 Hour Period @+25°C (No Motion)
1 PPS Output	3.3 VDC CMOS
Serial Control	USB serial port with SCPI-99 commands, GPS NMEA Output
GPS Frequency	L1, C/A 1574 MHz
GPS Antenna	Active or Passive, 5 V supplied by unit
GPS Receiver	50 Channels, Mobile, SBAS WAAS, EGNOS, MSAS capable
Sensitivity	
Acquisition	-142 dBm
Tracking	-158 dBm
ADEV	10 Ks $< 5E-012$ (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)	5 V via USB connector, or 4 V to 5.25 V on optional header pins
Power Consumption	< 0.5 W
Temperature	
Operating Temperature	-10°C to +65°C
Storage Temperature	-45°C to +85°C



LC-XO Plus

Oscillator Specifications

Additional Features	Firmware field-upgradable, status LED, compatible to GPSCon, SNTP, GPSD, and Z38xx software applications, NMEA output	
Frequency Output	10 MHz CMOS 5 Vpp	
10 MHz Retrace	$\pm 2E-08$ After 1 Hour @ +25°C	
Frequency Stability Over Temperature (without GPS lock)	± 75 parts per billion from 0°C to +60°C	
Output Amplitude	5 Vpp CMOS	
Warm Up Time	<1 min @ +25°C	
Phase Noise	Offset	Phase Noise
	1 Hz	-65 dBc/Hz
	10 Hz	-102 dBc/Hz
	100 Hz	-132 dBc/Hz
	1 kHz	-148 dBc/Hz
	10 kHz	-152 dBc/Hz
	100 kHz	<-155 dBc/Hz

Connections

1 PPS Output, 10 MHz 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

NOTE: Specifications subject to change without notice.



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