VIAVI Solutions

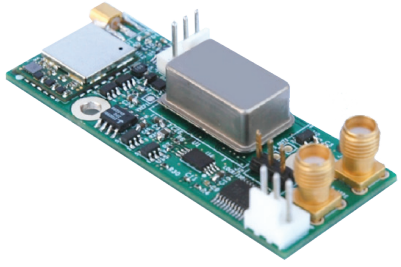
Data Sheet

VIAVI
Firefly-1A

GPSOCXO Module Specification – Standard Temperature

Typical Electrical Specifications

Module Specifications	
1 PPS Accuracy	±50 ns to UTC RMS (1-Sigma) GPS Locked
Holdover Stability	<±11 µs over 3 Hour Period @+25°C (No Motion)
1 PPS Output (OCXO Flywheel Generated)	3.3 V DC CMOS
RS-232 Control	NMEA and SCPI-99 Control Commands 1 PPS Level Output for Linux SNTP Server Software (with D Sub RTS pin)
Avionics Support	3D Velocity Vector (Velocity Output for the X, Y, and Z planes)
GPS Frequency	L1, C/A 1574 MHz
GPS Antenna	Active or Passive
GPS Receiver	50 Channels, Mobile, WAAS, EGNOS, MSAS capable
Sensitivity	
Acquisition	–144 dBm
Tracking	–160 dBm
TTFF	
Cold Start	<45 sec
Warm Start	1 sec
Hot Start	1 sec
ADEV	1 s – 1E-11
TTL Alarm Output	GPS Unlock and Hardware Failure, and LOCK indicators
Warm Up Time/Stabilization Time	<5 min at +25°C to 1E-08 Accuracy



GPSOCXO Module Spec – Standard Temperature Option

Oscillator Specification		
Supply Voltage (Vdd)	8.0 V to 14.0 V DC (12 V DC Nominal)	
Power Consumption	<1.8 W Max, 1.35 W Typical	
Temperature		
Operating Temperature	0°C to +60°C	
Storage Temperature	-45°C to +85°C	
Frequency Output	10 MHz Sine Wave	
10 MHz Retrace	±2E-08 After 1 Hour @ +25°C	
Frequency Stability Over Temperature (Unlock Condition)	±2.5E-08	
Output Amplitude	+13 dBm ±3 dBm	
Warm Up Time	<1 min @ +25°C	
Phase Noise	1 Hz	-80 dBc/Hz
	10 Hz	-110 dBc/Hz
	100 Hz	-135 dBc/Hz
	1 kHz	-145 dBc/Hz
	10 kHz	<-145 dBc/Hz
Connections	**Connector Type**	
1 PPS Output, 10 MHz Output	SMB (SMA upon special order)	
RS-232	3 Pin	

NOTE: Specifications subject to change without notice.

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