

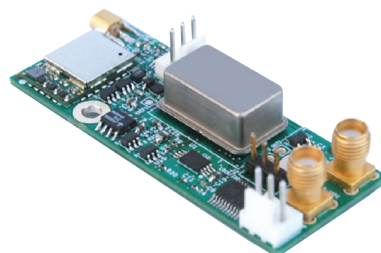
# VIAVI

## Firefly-1A – Extended Temperature Option

### GPSOCXO Module Spec – Extended Temperature Option

#### Typical Electrical Specifications

Module Specifications	
1 PPS Accuracy	$\pm 50$ ns to UTC RMS (1-Sigma) GPS Locked
Holdover Stability	$< \pm 11$ $\mu$ s 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
TTF	
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



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<b>Module Specifications continued</b>		
Supply Voltage (Vdd)	8.0 V to 14.0 V DC (12 V DC Nominal)	
Power Consumption	<2 W Max, 1.35 W Typ.	
Temperature		
Operating Temperature	-40°C to +75°C	
Storage Temperature	-45°C to +85°C	
<b>Oscillator Specification</b>		
Frequency Output	10 MHz Sine Wave	
10MHz Retrace	±2E-08 After 1 Hour @ +25°C	
Frequency Stability Over Temperature (Unlock Condition)	±2.5E-07	
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
<b>Connections</b>	<b>Connector Type</b>	
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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