

FireFly II GPSDO Module Spec Ruggedized MilSpec-COTS

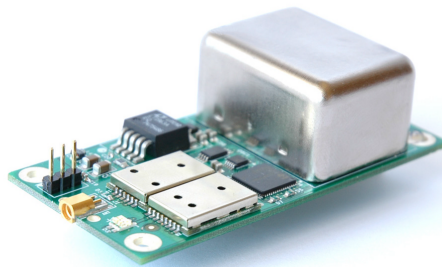


- 1.5 X 3 X 0.8 Inch Package
- Fast Warm Up, -20°C to +75°C
- Excellent Holdover Stability
- Low Power, Low-g, Ruggedized
- PRELIMINARY SPECIFICATION

ELECTRICAL SPECIFICATIONS:

Module Specification:		
1 PPS Accuracy	< ±50ns to UTC RMS (1-Sigma) GPS Locked	
Holdover Stability	< ±7us over 24 Hour Period @ +25°C (No Motion)	
1 PPS Output (OCXO Flywheel Generated)	LVDS output, RS-232 level output	
10MHz Output	LVDS and CMOS 5V	
RS-232 Control	Full control via SCPI-99 Control Commands	
GPS Frequency	L1, C/A 1574MHz	
GPS Antenna	Active	
GPS Receiver	50 Channels, Mobile, GPS, 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	1s – <7E-12	
TTL Alarm Output	(GPS Unlock and Hardware Failure)	
Warm Up Time / Stabilization Time	<7 min at +25°C to 1E-09 Accuracy	
Supply Voltage (Vdd)	12 VDC Nominal +/-5%	
Power Consumption	<4W at +25°C	
Operating Temperature	-20°C to +75°C Double Oven OCXO	
Storage Temperature	-45°C to +85°C	
Oscillator Specification:		
Frequency Output	10MHz	
10MHz Retrace	±2E-08 After 1 Hour	
Frequency Stability	±2.5E-010 over temperature, ±3E-010 per g per axis	
Output Amplitude	CMOS 5V, LVDS +/-300mV differential	
Warm Up Time	< 12 min	
Phase Noise	1Hz	-90dBc/Hz
	10Hz	-120dBc/Hz
	100Hz	-140dBc/Hz
	1kHz	-150dBc/Hz
	10kHz	-155dBc/Hz

FireFly II GPSDO:



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