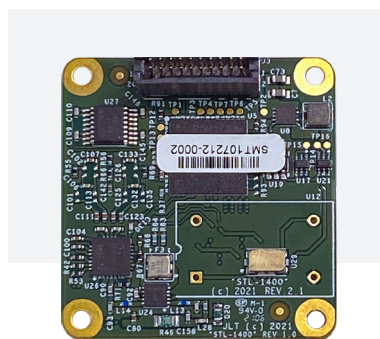


STL-1400 STL LEO Receiver Module

Typical Electrical Specifications

Module Specifications	
1 PPS UTC Stability	<45 ns rms (1-sigma, stationary, external Rubidium reference)
Serial Control	TTL NMEA and Status Output, SCPI serial control and monitoring
NMEA Messages	GGA, RMC, ZDA, GSV, PASHR, GSA
STL Receiver	3.3 V antenna-power built-in, custom-designed receiver
STL Sensitivity (25 dB antenna LNA gain assumed)	
Tracking	-120 dBm
Supply Voltage (Vdd)	+3.3 V: 0.2 V, -0.1 V
Power Consumption	0.85 W typical
Temperature	
Operating Temperature	-20°C to +75°C
Storage Temperature	-45°C to +95°C
Oscillator Specifications	
Frequency Output	10 MHz CMOS 3.3 V
10 MHz Accuracy	<±0.5E-010 after 20 minutes with STL ¹ or external 1 PPS
Frequency Stability over Temperature in GNSS/STL Holdover	±75E-08 0°C to +60°C
Output spurs	<-110 dBc/Hz



STL-1400 STL LEO Receiver Module

Typical Electrical Specifications (continued)

I/O Connectors	
1 PPS, 10 MHz External Reference Input	Supports optional external 1 PPS and/or 10 MHz reference inputs
10 MHz Output	CMOS 3.3 V, low phase noise
1 PPS Outputs	UTC (GPS) and UTC (STL) synchronized, CMOS 3.3 V, 200 ms pulse-width
RF Antenna	Miniature U.FI coax, +3.3 V, 60 mA max
+3.3 V Power, 10 MHz out, 1 PPS out, TTL status, TTL serial, ISP/RST	20-pin Samtec, PN: TFM-110-11-H-D
Serial Ports (9,600 to 921,600 baud)	NMEA out, SCPI Control/Monitoring, External CSAC/Rb Oscillator control
In Situ firmware updates	Fully field upgradeable through SCPI serial port

Ordering Information

Catalog Number	22185820
Description	STL-1400 LEO Receiver 3.0 - Timing and Position
SecureTime Service Options	SecureTime altGNSS LEO-S
	SecureTime altGNSS LEO LOCUS

¹STL Lock capability requires active subscription to Iridium based SecureTime LEO services.



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