

GEOL-2600 Standalone Timing Receiver Module

Typical Electrical Specifications

Module Specifications

Pulse Per Second Reference

1 PPS Stability	±100 ns GEO-L Locked, with SecureTime altGNSS GEO-L subscription
1 PPS Output	CMOS 3.3 V
Pulse width	200 msec
Cable Delay Compensation	5 ns resolution

GEO-L Receiver

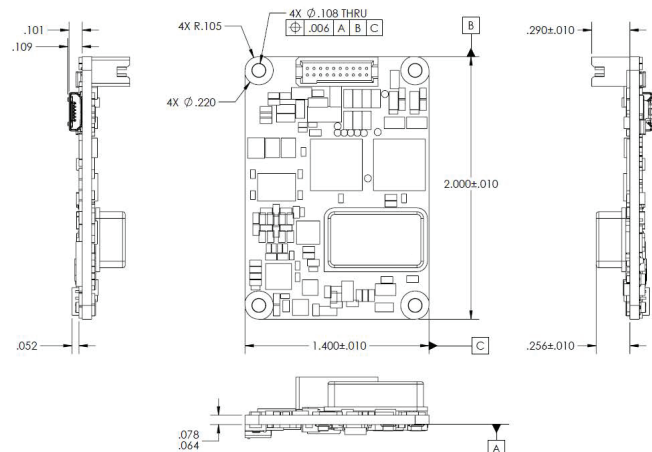
Sensitivity	-100 dBm
Dynamic Range	70 dB
VSWR	> 2:1
Antenna Power	3.6 Vdc ±0.1 at 60 mA
Input Power	-110 dBm: -80 dBm
Impedance	50 ohms

Power and Consumption

Supply Voltage (Vdd)	3.3 V ±0.15 V
Micro USB Power and Control	3.6 V to 5.5 V
Power Consumption	1.6 W max during warmup



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GEOL-2600 Dimensions

Typical Electrical Specifications continued**Temperature**

Operating Temperature	$-20^{\circ}\text{C} \leq T_c \leq +85^{\circ}\text{C}$
Storage Temperature	$-55^{\circ}\text{C} \leq T_c \leq +95^{\circ}\text{C}$

Oscillator Specifications

Frequency Output	10 MHz CMOS 3.3V
Stability (over temperature)	± 75 ppb over 0°C to $+60^{\circ}\text{C}$
Stability vs. supply	± 0.2 ppm, $V_{cc} \pm 2\%$
Stability vs. load	± 0.2 ppm, 15 pF $\pm 5\%$ load
Warm Up	0.4 s typical 3 s Max
Output spurs	< -110 dBc/Hz
Phase Noise (at 10 MHz)	
100 Hz offset	-117 dBc/Hz
1 kHz offset	-138 dBc/Hz
10 kHz offset	-148 dBc/Hz
100 kHz offset	-150 dBc/Hz

Connections and Interfaces

RF Antenna	Miniature U.FI coax
+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,
USB Power/Control	Micro-USB
1 PPS, 10 MHz External Reference Input	Supports optional external 1 PPS and/or 10 MHz reference inputs
Serial Control	TTL Status Output, SCPI serial control and monitoring, External CSAC/Rb Oscillator
Serial Ports	TTL, USB (9600 to 921,600 baud)
In Situ firmware updates	Fully field upgradeable through SCPI serial port

Standards/Compliance Certifications

CE
UKCA
REACH
RoHS
WEEE

Typical Electrical Specifications continued

<i>Weight and Dimensions</i>	
Width	1.4 in/3.556 cm
Length	2.0 in/5.08 cm
Height	0.5 in/1.27 cm
Weight	0.6 ounce / 17 grams

Ordering Information

Catalog Number	22185032
Description	GEOL-2600 Standalone Timing Receiver Module
Supported SecureTime - Service Options	Supports SecureTime altGNSS GEO-L



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