

Mini-JLT™ GNSS variant with GPS, Glonass, Galileo, BeiDou, QZSS



- Concurrent 8th-gen GNSS version
- Three concurrent GNSS tracking
- Position Hold, and 3D Modes
- 72 Channel GNSS Receiver
- -167dBm GNSS tracking
- PRELIMINARY SPECIFICATION

TYP. ELECTRICAL SPECIFICATIONS:

Module Specification:																						
1 PPS Stability	<±10ns to UTC RMS (1-Sigma) GPS Locked (DOCXO)																					
Serial Control	GPS NMEA and Status Output, SCPI-99 control, USB and TTL Port																					
GPS Frequency, antenna power	C/A 1574MHz, 3.3V antenna-power built-in, 5V external supply option																					
GPS Receiver	72 Channels, GPS, Glonass, Galileo, BeiDou, QZSS, SBAS capable																					
Sensitivity	Acquisition -148 dBm, Tracking -167 dBm (GPS & Glonass)																					
GPS TTFF	Cold Start - <30 sec, Warm Start - 2 sec, Hot Start - 2 sec																					
ADEV SOCXO	1s < 7E-012, 1Ks < 7E-011, 10Ks < 8E-012 (25°C, no motion/airflow)																					
ADEV DOCXO option	1s < 5E-012, 1Ks < 3E-011, 10Ks < 3E-012 (25°C, no motion/airflow)																					
Holdover at 25.0°C, no airflow, no motion/vibration, 5 days GPS locked	<5us in 5 hours (SOCXO), <4us in 24 hours (DOCXO)																					
Warmup and Stabilization Time	<12 min at +25°C to <1E-09 Accuracy to GPS																					
Supply Voltage (Vdd)	5V ±1.0V																					
Power Consumption	<2.4W (SOCXO), <3.2W (DOCXO) @25C, <8W during warmup																					
Operating Temperature	-45°C to +80°C (SOCXO), 0°C to +75°C (DOCXO)																					
1PPS External Reference Input	Supports an optional external 1PPS input on pin 1 of power connector																					
10MHz outputs	1x 10MHz at +5dBm, 1x optional 10MHz at +13dBm, ±3dB																					
3-axis accelerometer	Up to 20 readings/s, can be used for electronic g-compensation option																					
Oscillator Specification (SOCXO):																						
Frequency Output	10MHz at +5dBm and +13dBm																					
10MHz Retrace	<±1E-09 After 1 Hour @ +25°C (no GPS)																					
Frequency Stability over Temperature, and over 24hrs	±6E-09 (SOCXO), ±0.5E-09 (DOCXO), <1E-012 over 24hrs (with GPS)																					
Output Harmonics, spurs	<-50dBc/Hz, <-115dBc/Hz																					
OCXO aging (fully compensated by GPS)	<±0.1ppm per year without GPS																					
Phase Noise @ 10MHz	<table border="1"> <thead> <tr> <th></th> <th>SOCXO</th> <th>DOCXO</th> </tr> </thead> <tbody> <tr> <td>1Hz</td> <td>-90dBc/Hz</td> <td>-94dBc/Hz</td> </tr> <tr> <td>10Hz</td> <td>-128dBc/Hz</td> <td>-132dBc/Hz</td> </tr> <tr> <td>100Hz</td> <td>-148dBc/Hz</td> <td>-142dBc/Hz</td> </tr> <tr> <td>1kHz</td> <td>-153dBc/Hz</td> <td>-150dBc/Hz</td> </tr> <tr> <td>10kHz</td> <td>-155dBc/Hz</td> <td>-152dBc/Hz</td> </tr> <tr> <td>100KHz</td> <td><-155dBc/Hz</td> <td>-152dBc/Hz</td> </tr> </tbody> </table>		SOCXO	DOCXO	1Hz	-90dBc/Hz	-94dBc/Hz	10Hz	-128dBc/Hz	-132dBc/Hz	100Hz	-148dBc/Hz	-142dBc/Hz	1kHz	-153dBc/Hz	-150dBc/Hz	10kHz	-155dBc/Hz	-152dBc/Hz	100KHz	<-155dBc/Hz	-152dBc/Hz
		SOCXO	DOCXO																			
	1Hz	-90dBc/Hz	-94dBc/Hz																			
	10Hz	-128dBc/Hz	-132dBc/Hz																			
	100Hz	-148dBc/Hz	-142dBc/Hz																			
	1kHz	-153dBc/Hz	-150dBc/Hz																			
	10kHz	-155dBc/Hz	-152dBc/Hz																			
100KHz	<-155dBc/Hz	-152dBc/Hz																				
Connections:																						
2x 10MHz Sine Wave Out (second output not stuffed), GPS Antenna	Connector Type: SMA																					
+5V Power, ext. 1PPS input, TTL serial port, Ant. power (3.3V to 5.5V)	Molex PN 70543-0005																					
USB Communication	Mini USB, USB 2.0																					

Mini-JLT GNSSO™ Module: - MADE IN USA - PART NUMBER: 100306 (SOCXO), 100307 (DOCXO)



Jackson Labs Technologies, Inc., 10191 Park Run Dr., Suite 100, Las Vegas, NV 89145
 Phone: (702) 233-1334, Fax: (702) 233-1073, www.jackson-labs.com
sales@jackson-labs.com