

# Micro-JLT™ SOCXO 10MHz GNSDO™ Extended Temp, PN: 100316



"the next generation in frequency and timing"

- Three concurrent GNSS tracking
- Very Low Phase Noise, ADEV
- LVDS, RS-422 interfaces
- 1.5 x 3.0 x 0.7 Inches
- GPS, Galileo, Glonass, BeiDou
- PRELIMINARY SPECIFICATION

## TYPICAL ELECTRICAL SPECIFICATIONS:

Module Specification:	
1 PPS Stability	<10ns to UTC RMS (1-Sigma) GPS Locked
Serial Control	GNSS NMEA and Status Output, SCPI-99 control, RS-422 Port
GNSS Frequency, antenna power	GPS/Glonass/Galileo/BeiDou/QZSS 3.3V antenna-power built-in
GNSS Receiver	72 Channels, Auto-Survey, Position-Hold Mode, and SBAS capable
Sensitivity	Acquisition -148 dBm, Tracking -167 dBm
GNSS TTFF	Cold Start - <29 sec, Warm Start - <2 sec, Hot Start - <2 sec
ADEV SOCXO at 25.0°C, no airflow/motion/vibration, 5 days GPS locked	0.1s < 3E-12, 1s < 6E-12, 1Ks < 9E-12, 10Ks < 4E-12
Holdover at 25.0°C, no airflow, no motion/vibration, 5 days GPS locked	<2us in 5 hours
Warmup and Stabilization Time	<12 min at +25°C to <1E-09 Accuracy to GNSS
Supply Voltage (Vdd)	5.5V +0.5V/-0.3V, 5.0V optional
Power Consumption	<2.6W @25C, <6W during warmup (SOCXO)
Operating Temperature	-40°C to +85°C
1PPS External Reference Input	Supports an optional external 1PPS TTL/CMOS input
10MHz output	+8.5dBm ±0.5dB
1PPS Output	OCXO flywheel generated, LVDS
Oscillator Specification:	
Frequency Output	10MHz Sine Wave
10MHz Retrace	<±1E-09 After 1 Hour @ +25°C (no GNSS)
Frequency Stability over Temperature, and over 24hrs	±6E-09, <1E-012 over 24hrs (with GNSS), ±2E-010 optional w. DOCXO
Output Harmonics, spurs	<-50dBc/Hz, <-125dBc/Hz
OCXO aging (fully compensated by GNSS)	<±0.1ppm per year without GNSS
Phase Noise @ 10MHz	<b>SOCXO</b>
	1Hz -92dBc/Hz
	10Hz -128dBc/Hz
	100Hz -150dBc/Hz
	1kHz -156dBc/Hz
	10kHz -157dBc/Hz
100kHz <-162dBc/Hz	
Connections:	
10MHz Sine Wave Out, GNSS Antenna	<b>Connector Type:</b> SMA
+5.5V Power, 1PPS output, RS-422 serial	12-pin Hirose, PN: DF11-12DP-2DSA(01)
3-pin 100mil through hole (optional)	1PPS Input, ISP#

Micro-JLT GNSDO™ Module PN: 100316:

MADE IN USA



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