

Product Summary

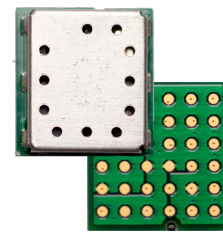
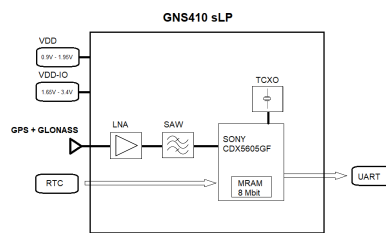
GNS41x sLP

Best in class super low power module

High performance, small GNSS module for power critical applications



- ▶ Super low power consumption
- ▶ Cost efficient
- ▶ Embedded noise filters
- ▶ Spectrum analyzer for development



9.3 x 10.0 x 2.1 mm

GNS41x sLP

GNSS	
GPS / QZSS	●
GLONASS	●
Galileo	●
BeiDou	●
Number of concurrent GNSS	2

Interfaces	
UART	1
I ² C	1
RTC Input	1

Features	
Oscillator	TCXO
Time Pulse	1

Power Supply	
Supply Voltage	0.9 V – 1.95 V
I/O Voltage GNS410sLP	1.71 V – 1.89 V
I/O Voltage GNS413sLP	3.14 V – 3.46 V

PRODUCT DESCRIPTION

The GNS41x sLP is the ideal module for state of the art battery powered Internet of Things (IoT) applications. The power consumption of only 9 mW in low power mode facilitates extended operating time along with improved product form factors by downsized batteries. Performance is not compromised by GNS41x sLP super low power consumption - the GNS41x sLP module features outstanding precision and acquisition time powered by GPS in addition with either GLONASS, Galileo or BeiDou.

	I/O Voltage	
	1.8 V	3.3 V
No ext. Flash	GNS 410sLP	GNS 413sLP
8 MBit ext. Flash	GNS 410sLP-8	GNS 413sLP-8

► **FEATURES**

Receiver type	Multi-GNSS receiver for GPS, GLONASS, SBAS, QZSS, BeiDou and Galileo
Position accuracy	1.0m 2DRMS (GPS, GLONASS)
Acquisition	Cold starts 35 s Aided starts 2 s
Tracking & Navigation	-161 dBm
Reacquisition	-160 dBm
Hot starts	-160 dBm
Cold starts	-147 dBm
Assistance	Long term ephemeris
Oscillator	TCXO
RTC crystal	Optional (recommended)
Memory	8MBit integrated MRAM and opt. external Flash
Supported antennas	Active and passive

► **FEATURES - TIMING**

Time pulse	1Hz
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► **PACKAGE**

L x W x H	(9.3 x 10.0 x 2.1) mm
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► **ENVIRONMENTAL DATA, QUALITY & RELIABILITY**

Operating temperature	-40 °C to +85 °C
Storage temperature	-65 °C to +150 °C
RoHS compliant (lead-free)	

► **ELECTRICAL DATA**

Power supply	0.90 V to 1.95 V
Power consumption	8 mW @ 0.9 V (8-ch tracking) 14 mW @ 0.9 V (acquisition)
I/O Supply GNS410sLP	1.65 V to 3.4 V
I/O Supply GNS413sLP	3.14 V to 3.46 V

► **INTERFACES**

Serial interfaces	1 UART 1 I ² C
Protocols	NMEA
Time pulse output	1

► **SUPPORT PRODUCTS**

Evaluation Kit	GNS41x sLP Evaluation Kit
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