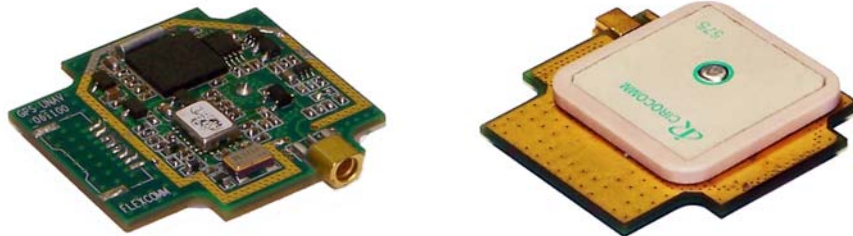


Flex-UN102-02

OEM GPS Receiver Module



Product Overview

The Flex-UN102 family integrates a high performance passive patch antenna. It is a versatile OEM GPS receiver for applications that require only an "NMEA-machine". It is suitable for instance for GPS type of applications where high performance and low cost are key issues.

Product Highlights

- Compact design with integrated antenna
- High performance, Cost effective design
- Very high sensitivity
- Suitable for PMP+GPS, mobile navigation or portable type of GPS applications

High performance receiver architecture

The chipset use is uNAV uN1510 RF combined with uN2110 baseband device with built in ROM based firmware. In addition a LNA, TCXO, SAW filter and RTC are included. Necessary on board regulators and reset devices are also included for ease of use. Typical Cold Start TTFF is 37s. State of the art signal acquisition and tracking circuitry enables weak signal capability in difficult environments.

Versatile interfaces

The 8-pin interface connector carries all necessary signals for making typical "NMEA machine" type of applications possible. The user needs only to connect the power supplies (main power supply and battery supply) to make it functional. Low power mode is simply achieved by removing the main power supply or send sleep mode command at any time. The receiver will resume normal operation once the main power

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supply is reconnected or send hot start command through UART port.

NMEA0183 output (GGA, GSA, RMC, ZDA, GLL, GSV, VTG, DTM) can be customized using Orin protocol. The default output message includes GGA, GSA, RMC, GSV. And the default output port is a CMOS level serial interface. A Highly accurate 1PPS timing pulse is also available. A valid fix output can be used for indicating the state of the receiver.

Specifications

General:	
L1 frequency, C/A code (SPS)	12 independent tracking channels
Update rate:	Protocol:
1 fix/s	NMEA 0183
Accuracy:	TTFF:
Position: 3m (CEP), 6m 2Drms	Cold start: <37s
Velocity: < 515m/s	Warm start: < 32s
Acceleration: <4g	Fast start: < 4s
Sensitivity:	I/O ports:
Acquisition: -144dBm	8-pin interface connector
Tracking: -155dBm	One serial data port
Power assumption:	1PPS timing output
Acquisition: 44ma/Navigation: 39ma	Main power supply
Battery backup: 0.25ua	Battery backup supply
Dimension:	Operating voltage:
34.5x33.8x6mm	3.0V to 3.3V (main power)
Weight: 10g	1.3V to 5.5V(battery backup)
Antenna:	Operating temperature:
Internal passive path antenna	-30C to +85C
External active antenna	