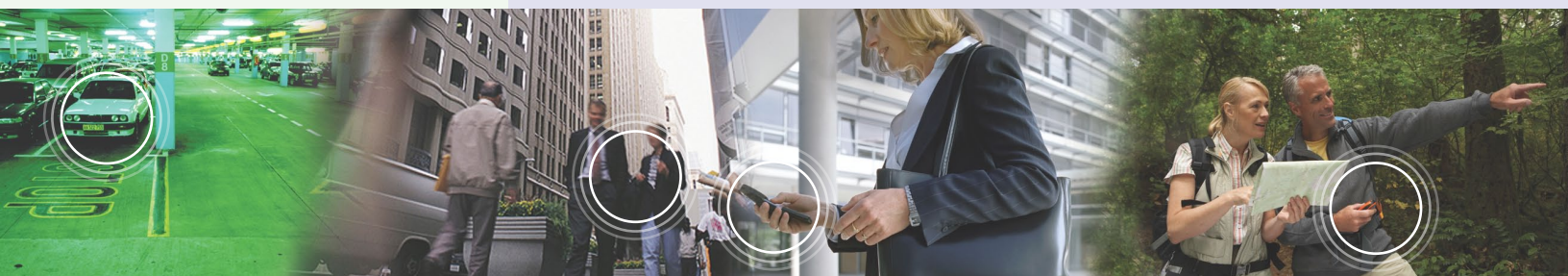


FURUNO

GN-8462

eMD3611F

32 Channel GPS/AGPS and 2 Channel SBAS Receiver Module



GN-8462/eMD3611F is a high-sensitivity, complete GPS/AGPS receiver module that combines a hardware measurement platform with *eRide's* powerful navigation software integrated onto an embedded 32-bit RISC microprocessor. It delivers fast, accurate positioning data in challenging locations like indoor environments and deep urban canyons.

GN-8462/eMD3611F is based on OPUS III technology and includes the OPUS IIIez Baseband IC and the Prelude III RF Receiver IC, along with all required supporting components in a small form factor. It a complete GPS/AGPS solution requiring only an external GPS antenna and power supply.

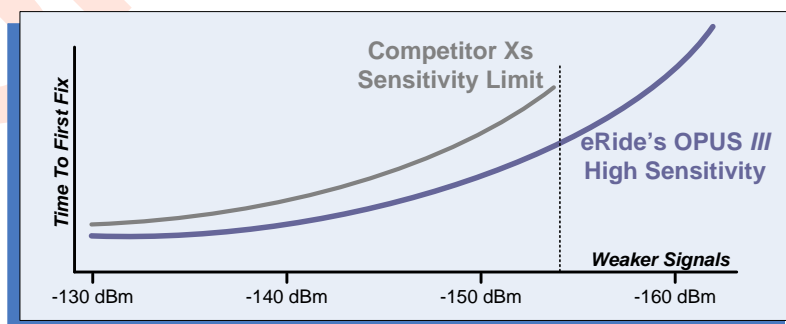
GN-8462/eMD3611F has been engineered specifically for mobile and embedded applications such as Personal Navigation Devices, Smart Phones or Tracking Devices, where performance, time to market and real estate are prime considerations.

This module has been designed to be an easy upgrade from *eRide's* eMD1100Z OPUS ONE miniRide module. These two modules share the same form factor, and are pinout compatible.

KEY FEATURES

Versatile:	32 Channel GPS Receiver Module operates in Autonomous and/or Assisted-GPS mode
Ultra-high Sensitivity:	-161 dBm sensitivity in acquisition and tracking ensures position fix availability indoors, outdoors and in urban canyons
Fast:	<1 sec TTFF ensures user satisfaction
Highly Accurate:	Typical position accuracy of 1.3 m outdoors and 12.5 m indoors
Easy Integration and Miniature Size:	Optimized RF and Digital design ensures GPS performance while on-chip LNA minimizes BOM
Low Power:	40 mW power consumption while tracking to extend battery life in handheld products
Dual GPS/AGPS Modes:	Complete Autonomous GPS mode with (and/or) Simple Assisted GPS mode for Plug and Play solutions
Assisted-GPS Mode:	Supports <i>eRide's</i> Symphony Assisted-GPS Server Aiding including 7-day Long Term Compact Satellite Models
Supports WAAS:	2 Channel capable SBAS (EGNOS, WAAS and MSAS)
PPS Output	One Pulse-Per-Second output signal for timing reference

eRide's OPUS III Ultra High Sensitivity

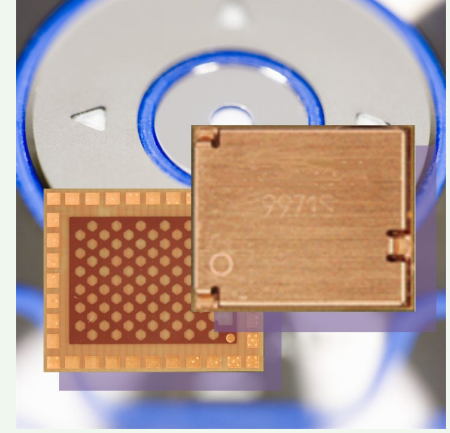


The **GN-8462/eMD3611F** features *eRide's* OPUS III ultra high sensitivity. The **GN-8462/eMD3611F** can provide fast and accurate hot starts in even the most challenging environments – even with *all* satellite signals weaker than -160 dBm. *eRide's* OPUS III technology works where the competition can't, and when used with *eRide's* advanced Symphony Server Aiding this performance can be achieved any time, anywhere.

GN-8462

eMD3611F

32 Channel GPS/AGPS and 2 Channel SBAS Receiver Module



The **GN-8462/eMD3611F** module is housed in a tiny 9.1 x 10.9 x 1.6 mm SMD package that includes all the required components for a complete GPS/AGPS solution.

Combined with an external passive GPS antenna and power supply, the **GN-8462/eMD3611F** provides unparalleled GPS performance.

KEY SPECIFICATIONS

Receiver Type:	L1, C/A Code 32 Channel Acquisition 12 Channel Tracking 2 Channel capable SBAS (EGNOS, WAAS and MSAS)
Maximum Update Rate:	1 Hz
Position Accuracy:	Outdoors: 1.3 m CEP Indoors: 12.5 m CEP
Time to First Fix:	Hot Start: Outdoors: <1 sec Typ, Indoors: 6 sec Typ Warm Start: 33 sec Typ @ -135 dBm Cold Start: 33 sec Typ @ -135 dBm
Sensitivity:	Acquisition (Hot Start) ¹ : -161 dBm Acquisition (Warm Start) ¹ : -146 dBm Reacquisition & Tracking ¹ : -161 dBm, variable update rate
Supply Voltage:	3.3V single-rail supply
Power Consumption:	Track Mode, Outdoors: 40 mW Track Mode, Indoors: 57 mW Search Mode: 65 mW
Operating Temperature:	-40°C to +85°C
Aiding:	Message based, through bidirectional NMEA/eSIP serial port (requires TCP/IP connection to eRide Symphony Server)
Package:	10.9 mm (L) x 9.1 mm (W) x 1.6 mm (H) Surface-Mount module with LGA terminal pattern
Part Number:	GN-8462 or eMD3611F

INTERFACES

Protocols:	NMEA 0183 eRide Standard Interface Protocol (eSIP)
Processor:	Embedded ARM7TDMI®
Serial Ports:	Simple Serial UART for eSIP/NMEA
Digital I/O:	3 Volt CMOS Digital Levels
Antenna Interface:	Supports Passive GPS Antenna



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eRide, Inc. is a fabless semiconductor company that develops advanced satellite navigation solutions.

eRide products help fuse wireless technology with the internet, enabling the rollout of mobile commerce and location-based services. Our products are designed to be easily integrated and scalable, and to help ensure end-user satisfaction and loyalty. They include ultra-sensitive GPS chipsets, as well as navigation and server software.