OPUS *III* nano*Ride*

32 Channel GPS/AGPS Receiver Module

nano*Ride* is eRide's latest generation of GPS Module Technology, defining Satellite Navigation to new performance heights.

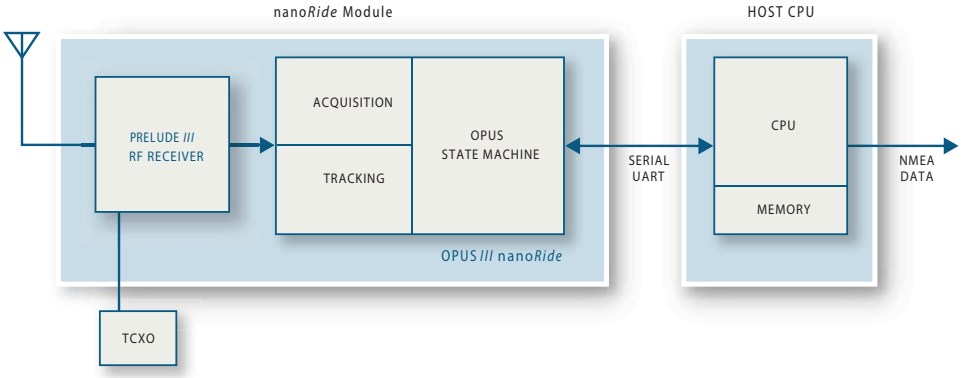
Engineered as a cost efficient host-based architecture, **OPUS *III*** provides unparalleled performance by combining a hardware measurement platform (MP) with a powerful navigation software running on a host microprocessor. The solution delivers fast, accurate positioning data ideal for wireless applications and handheld system in challenging locations like indoor environments and deep urban canyons

nano*Ride* is based on **OPUS *III*** technology and includes the **Prelude *III* RF Receiver IC, OPUS *III* Baseband IC** a saw filter and various matching and peripheral components in a small form factor.

nano*Ride* has been engineered specifically for mobile and embedded applications such as Personal Navigation Devices or Smart Phones, where performance, time to market and real estate are prime considerations.

FEATURES

Versatile:	32 Channel receiver/baseband processor chipset operates in Autonomous and Assisted-GPS mode and 2 Channel Real Time Differential GPS with SBAS
Ultra-high Sensitivity:	-161 dBm sensitivity in acquisition and tracking ensures position fix continuity indoors, outdoors and in urban canyons
Fast:	< 1 sec TTFF ensures user satisfaction
Highly Accurate:	2.5 m outdoors, 10 m indoors typical, live-sky measurements
Miniature Size:	6.7 x 8.7 mm small form factor SMD solution supports ultra compact miniaturized designs
Easy Integration:	Optimized RF and electrical design ease GPS system integration Standard SMD package enables cost-efficient, high volume production
Low Power:	75 mW power consumption while tracking, with intelligent power management to extend battery life in handheld products
Simple, Low Cost:	Host based: leverages resources of host CPU and memory Navigation software runs in background, requires under 7 MIPS
Scalable:	Navigation software and drivers easily matched to memory footprint and processing power availability on host system



The OPUS *III* chipset is a hosted solution, so it reduces system power consumption, eliminates redundant resources, and lowers costs. eRide has the tools and the engineering team support it takes to get your new GPS-equipped products up and running and off to market, quickly and efficiently.

OPUS *III*
nano*Ride* eMD3100T

32 Channel GPS/AGPS and 2 Channel SBAS Receiver Module

SPECIFICATIONS

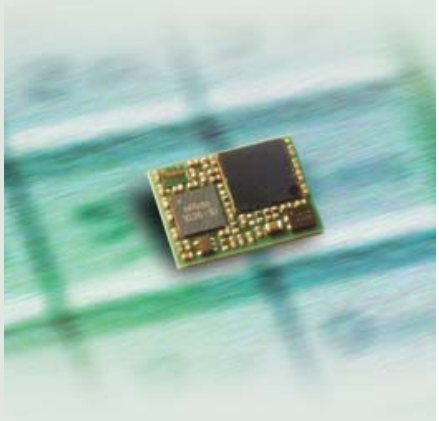
Receiver Type:	L1, C/A Code 32 Channel Acquistition 12 Channel Tracking 2 Channel capable SBAS (EGNOS, WAAS and MSAS)
Maximun Update Rate:	1 Hz
Position Accuracy:	Outdoors[1]: 2.5m, 50% CEP, Open Sky[1] Indoors[2]: 10 m, 50% CEP
Start-up Times:	Hot Start: Outdoors[1]: < 1 sec Typ, Indoors[2]: < 10 sec Typ Warm Start: 34 sec Typ @ -135 dBm Cold Start: 35 sec Typ @ -135 dBm
Sensitivity:	Acquisition, Reacquisition & Tracking: -161 dBm, variable update rate -155 dBm, 1 sec update rate
Supply Voltage:	OPUS *III*, Core: 1.2V, I/O: 3.3V Prelude *III*: 3.0V
Power Consumption:	Deep Sleep Mode: < 1mW Search Mode: 130mW Track Mode, Outdoors: 75mW Track Mode, Indoors: 120 mW
Operating Temperature:	-30° to +85°C
Package & Ordering:	8.7 mm (L) x 6.7 mm (W) x 1.4 mm (H) SMD Module with QFN Pattern P/N: eMD3100T, Opus III nano*Ride* Module

HOST ENVIRONMENT

Host CPU Load:	7 MIPS
RAM:	128 KB Max.
ROM/Flash:	256 KB Max.
Host Processor:	ARM, Strong ARM, Pentium, SH, Motorola, NEC, Samsung
Host OS:	Single thread, OS independent

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.

1. Open Sky: All visible satellites with received power at -140 dBm or higher.
2. Indoors: All visible satellites with power levels at -153 dBm or lower



*The **nano*Ride*** module (eMD3100T) is housed in a 6.7.0 x 8.7 x 0.8 mm 20 pnis SMD package that includes all RF matching elemenct and a saw filter.*

*Combined with eRide's navigation software, the **nano*Ride*** offer a complete GPS/AGPS solution. that provide best in class performance without the need for an additional external LNA.*

Enabling Satellite Navigation

eRide Headquarters
One Letterman Drive
Building C, Suite 310
The Presidio of San Francisco
San Francisco, CA 94129-1492
Tel: +1 (415) 848-7800
info@eRide.com

eRide Japan
Tokyo, Japan
Tel: +81 (3) 5730 7880
InfoJapan@eRide.com

eRide Korea
Seoul, Korea
Tel: +82 (2) 5779151
infoKorea@eRide.com

eRide Europe
Munich, Germany
Tel: +49 (89) 9286157-10
infoEurope@eRide.com

Distribution Partner
Hitachi High Technologies
gps_contact@nst.hitachi-hitech.com
http://www.hitachi-hitec.com

www.eRide.com