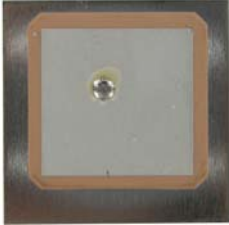


GPS Module Series Model:
MGT-320F(V2)
FLASH version

Data Sheet

MightyGPS International Corp. All right reserved, © 2010

MADE IN CANADA



MGT-320F(V2)

Fast Acquisition Enhanced Sensitivity 48 Channels GPS Module

The **MGT-320F(V2)** is a compact all-in-one GPS module solution intended for a broad range of Original Equipment Manufacturer (OEM) products, where fast and easy system integration and minimal development risk is required.

The receiver continuously tracks all satellites in view and provides accurate satellite positioning data. The **MGT-320F(V2)** is optimized for applications requiring good performance, low cost, and maximum flexibility; suitable for a wide range of OEM configurations including handhelds, sensors, asset tracking, PDA-centric personal navigation system, and vehicle navigation products.

Its 48 channels provide fast satellite signal acquisition and short startup time. Acquisition sensitivity of -145dBm and tracking sensitivity of -159dBm offer good navigation performance even in urban canyons having limited sky view.

Satellite-based augmentation systems, such as WAAS and EGNOS, are supported to yield improved accuracy.

Both of the LVTTTL-level and RS232-level serial interface are provided on the interface connector. Supply voltage of 3.5V~8.3V is supported.

Users can modify NMEA sentences or Binary code by the extra flash memory.

FEATURES

- 48 channels GPS receiver
- SBAS (WAAS, EGNOS) support
- -145dBm acquisition sensitivity
- -159dBm tracking sensitivity
- Hot start < 2 second
- Cold start < 33 second
- Power consumption < 45mA
- 5m CEP accuracy
- RoHS compliance
- Configuration (Baud rate and NMEA output) user selectable and store in memory)



TECHNICAL SPECIFICATIONS

Receiver Type	48 parallel channels, L1 C/A code
Accuracy	Position 5m CEP Velocity 0.1m/sec
Startup Time	< 2sec hot start < 29sec warm start < 33sec cold start
Sensitivity	-145dBm acquisition -159dBm tracking
Update Rate	1Hz
Dynamics	4G (39.2m/sec ²)
Operational Limits	Altitude < 18,000m or velocity < 515m/s (COCOM limit, either may be exceeded but not both)
Serial Interface	LVTTL level and RS-232 level
Protocol	NMEA-0183 V3.01 User selectable: NMEA Message: GPGGA, GPGLL, GPGSA, GPGSV, GPRMC, GPVTG, GPZDA Baud Rate: 4800, 9600, 19200, 38400, 57600, 115200 Default: NMEA output message: GPRMC, GPGGA, GPGSA, GPGSV Baud rate: 4800, 8 N 1
Datum	Default WGS-84 User definable
Interface Connector	One 1.0mm pitch WTB S/R wafer 87213 SMT R/A type connector
Input Voltage	3.5V ~ 8.3V
Power Consumption	< 45mA
Dimension	34 mm L x 34 mm W x 8.6 mm H
Weight:	14g
Operating Temperature	-20°C ~ +60°C
Humidity	5% ~ 95%



MightyGPS International Corp

3-1750 The Queensway, Suite 526, Toronto, ON, Canada M9C5H5

T: 416-712-9168

Email support@MightyGPS.com

Website www.MightyGPS.com

© 2010 MightyGPS International Corp. All rights reserved.

Not to be reproduced in whole or part for any purpose without written permission of MightyGPS International Corp ("MightyGPS") Information provided by MightyGPS is believed to be accurate and reliable. These materials are provided by MightyGPS as a service to its customers and may be used for informational purposes only. MightyGPS assumes no responsibility for errors or omissions in these materials, nor for its use. MightyGPS reserves the right to change specification at any time without notice.

These materials are provided "as is" without warranty of any kind, either expressed or implied, relating to sale and/or use of MightyGPS products including liability or warranties relating to fitness for a particular purpose, consequential or incidental damages, merchantability, or infringement of any patent, copyright or other intellectual property right. MightyGPS further does not warrant the accuracy or completeness of the information, text, graphics or other items contained within these materials. MightyGPS shall not be liable for any special, indirect, incidental, or consequential damages, including without limitation, lost revenues or lost profits, which may result from the use of these materials.

MightyGPS products are not intended for use in medical, life-support devices, or applications involving potential risk of death, personal injury, or severe property damage in case of failure of the product.