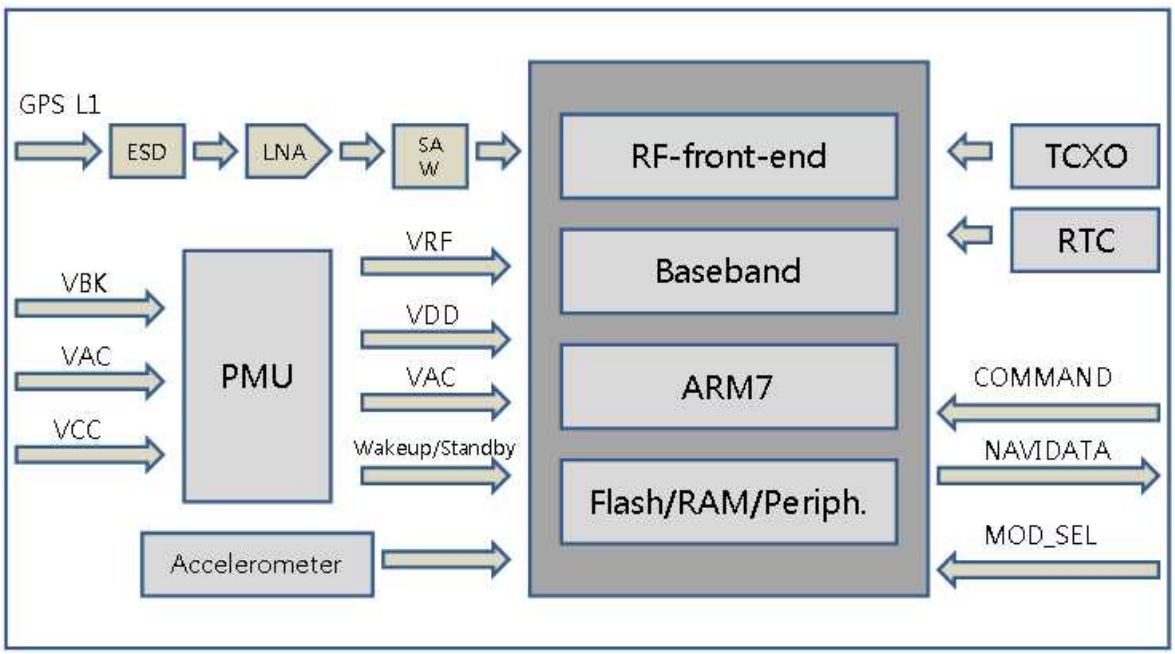
CruizCore® MGM1500H

Features

- 16-Channel GPS Receiver
- Low Power Consumption
- Compact Packaging
- Fast time-to-first-fix
- Compatible with L1 Signal (C/A Code)
- Small Size: 24×20×3 mm, < 3.5 g
- Fully Shielded Design
- RoHS Compliant
- MEMS Accelerometer contained
- 1 Hz Position and Heading Output
- 100Hz Acceleration Output

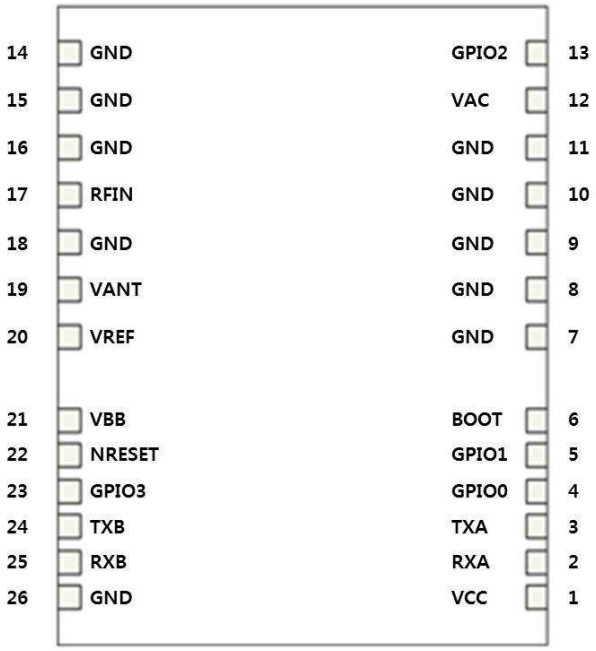
Description

The CruizCore® MGM1500H is a reliable and precise GPS navigation system. It is a GPS receiver providing a solution that high position and speed accuracy performances as well as high sensitivity and tracking capabilities in urban condition. The CruizCore® MGM1500H uses the ST Microelectonics STA8058 single chipset. It can support up to 16 GPS satellite tracing channels. The CruizCore® MGM1500H must be mounted securely in the vehicle so that it cannot move. Also, the product must be mounted horizontally. CruizCore® MGM1500H must be mounted so that the sensing axis is vertical in order to detect X-axis. The CruizCore® MGM1500H is designed as a single board system in order to facilitate its integration with other systems such as MDT (Mobile Data Terminals) or CNS (Car Navigation System).



MGM1500 Block Diagram

MICROINFINITY
http://www.minfinity.com E-mail: support@minfinity.com, TEL: +82-31-546-7408, FAX: +82-31-546-7409
(USA) E-mail: usa.support@minfinity.com, TEL: +1-734-223-5904, FAX: +1-866-400-3125



Pin Function

Pin Name	I/O	Function
VCC	I	Main supply voltage
RXA	I	Serial Port A (User command)
TXA	O	Serial Port B (Navigation output)
BOOT	I	Switch to download mode
VAC	I	Analog supply voltage
GND	-	Ground
RFIN	I	GPS signal form antenna
VANT	I	Active antenna power input
VREF	O	Power supply out for VANT
VBB	I	Backup supply voltage
NRESET	I	System reset (active low)
TXB	O	Serial Port B (Accelerometer output)
RXB	I	Serial Port B (Reserved)

Product Characteristics

Size (LxWxH)	24 mm x 20 mm x 3 mm	Weight	< 3.5 g
Main supply voltage	3.3 VDC	Input Current	< 100mA (typical)
Power Consumption	< 350 mW (typical)	Backup Current	< 50 uA (typical)
Data Interface	3V, UART (baudrate:115200(default))	Operating Temperature	- 40 ~ 85 ˚C

Performances

General	L1 frequency, C/A code 16 channel high performance GPS 1Hz navigation solution output	
Acquisition Time	Cold Start Warm Start Hot Start	45 sec (open sky, typical) 35 sec (open sky, typical) 5 sec (open sky, typical)
Receiving Sensitivity	Tracking Acquisition (Warm)	-159 dBm -146 dBm
Position Accuracy	Autonomous	≤ 3m CEP with SA off (typical) , CEP 50%, 24 hour static at –130dBm
Output Message	Latitude, Longitude, Velocity, Heading angle, Time, Height, Satellite tracking status, Sensor information (optional)	
Protocol	NMEA 0183 v2.2 : 1Hz output rate / Microinfinity Format : 100 Hz output rate	

MICROINFINITY
http://www.minfinity.com E-mail: support@minfinity.com, TEL: +82-31-546-7408, FAX: +82-31-546-7409
(USA) E-mail: usa.support@minfinity.com, TEL: +1-734-223-5904, FAX: +1-866-400-3125