



GPS Engine Board

Model: FV-M7

Perfect match for any GPS mobile devices



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Introduction:

The main goal of FV-M7 is used as a part of integrated system, which can be a simple PVT (Position-Velocity-Time) system, for instance, G-mouse, PND (Personal Navigation Device), or complex wireless systems, such as a system with GSM function, a system with Bluetooth function, and a system with GPRS function. FV-M7 can be the best candidate for users' systems as the users' systems need the careful consideration on the performance, sensitivity, power consumption, and/or size of the module.

Features:

- 32 parallel channels
- Sensitivity -158dbm
- 5Hz Update Rate
- Low power consumption

Application:

Perfect match for any GPS mobile devices, such as PND, GPS PDA, personal tracker and any portable devices, which need GPS features

Specifications:

PHYSICAL CONSTRUCTION		
Dimension	L40.5mm*W35mm*H13.7Mm	
Weight	15 grams	
Receiving frequency	1575.42MHZ; C/A code	
RF Connector	Standard: MCX Jack Optional: SMA, SMB Jack	
Mounting	Line Connector and Screw Mount	
Connector	12pin connector with 1.27mm pitch	
Construction	Full EMI Shielding	
ENVIRONMENTAL CONDITIONS		
Temperature	Operating: -30°C ~ +80°C	
	Storage: -40°C ~ +85°C	
COMMUNICATION		
Protocol	NMEA V3.00	
Signal level	RS232 +- 13.2V / Option: UART @ 2.8V	
INTERFACE CAPABILITY		
Output Sentences	Standard: RMC, GGA, GSV*5, VTG, GSA*5	
	Option: GLL, ZDA	
PERFORMANCE		
Sensitivity	-158dBm	
SBAS	1 channel (Support WAAS, EGNOS, MSAS)	
DGPS	RTCM Protocol	
Receiver architecture	32 parallel channels	
Start-up time	1 sec. typical (hot start)	
	35 sec. typical (warm start)	
	41 sec. typical (cold start)	
Position accuracy	Without aid 3.3 m CEP	
	With SBAS 2.6 m	
Velocity	0.1 Knot RMS steady state	
Update Rate	1 ~ 5Hz	
Power Supply	3.3~5V +- 5%	
Current Consumption	Acquisition	68mA
	Tracking	64mA (first 5 minutes)
		47mA (after 5 minutes)
		38mA (after 20 minutes)
External Antenna	GPS antenna with 2.8V power input	
Baud Rate	4800 bps (default) & 4800/9600/38400/57600/115200 bps are adjustable	

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