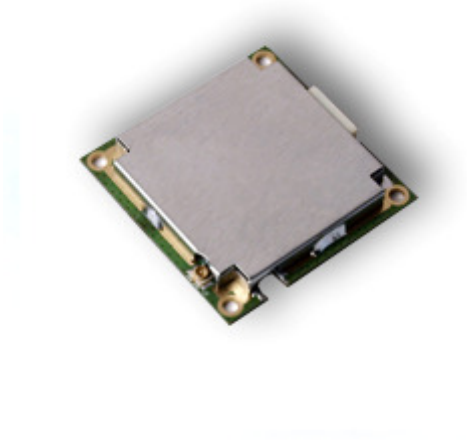
FV-W9U GPS Receiver Module



Overview

The main application of the FV-W9U is to be used as a part of an integrated system, which could be a simple PVT (Position-Velocity-Time) system like a GPS-mouse or PND (Personal Navigation Device), or a complex wireless system including GSM function or Bluetooth function.

The module is a good candidate for applications where important factors are performance, sensitivity, power consumption and module size.

Features

- 50 parallel channels for fast acquisition
- 160dbm Sensitivity for reliable performance
- Choice of UART-TTL or RS-232 or USB Data Output

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FV-W9U Specifications

PHYSICAL CONSTRUCTION	
GPS Board Dimension	L35.4mm*W35.4mm*H4.3mm
Receiving frequency	1575.42MHZ; C/A code
Mounting	8-pin Connector with 1.0mm pitch
Construction	Full EMI shielding
ENVIRONMENTAL CONDITIONS	
Temperature	Operating: -30° ~ +80°
	Storage: -40° ~ +85°
COMMUNICATION	
Protocol	NMEA, UBX, binary
Signal level	TTL UART (USB and RS232 also available)
INTERFACE CAPABILITY	
Standard Output Sentences	GGA, GLL,GSA,GSV,RMC,VTG Optional: ZDA
ANTENNA	
External	MMCX Connector

PERFORMANCE		
Sensitivity	-160dbm (Tracking)	
SBAS	1 channel (Support WAAS, EGNOS, MSAS,GAGAN)	
Receiver architecture	50 parallel channels u-blox6 engine	
Start-up time	1 sec. typical (hot start) 40 sec. typical (warm start) 45 sec. typical (cold start)	
Position accuracy(CEP 50)	Autonomous: 2.5 m	SBAS: 2.0m
Velocity	500 m/s	
Update Rate	1Hz Optional: up to 5Hz	
Power Supply	3.0V ~ 5.0V	
Power Consumption	Acquisition: 67mA, Tracking: 47mA	
Baud Rate	9600 bps (default) Optional:4800/19200/38400/115200 bps are adjustable	
CABLE		
Length	10cm 8-Pin bus cable	

Part Numbers

FV-W9U	GPS Engine Board with UART-TTL Data Output
FV-W9U-RS232	GPS Engine Board with RS-232 Data Output
FV-W9U-USB	GPS Engine Board with USB Data Output

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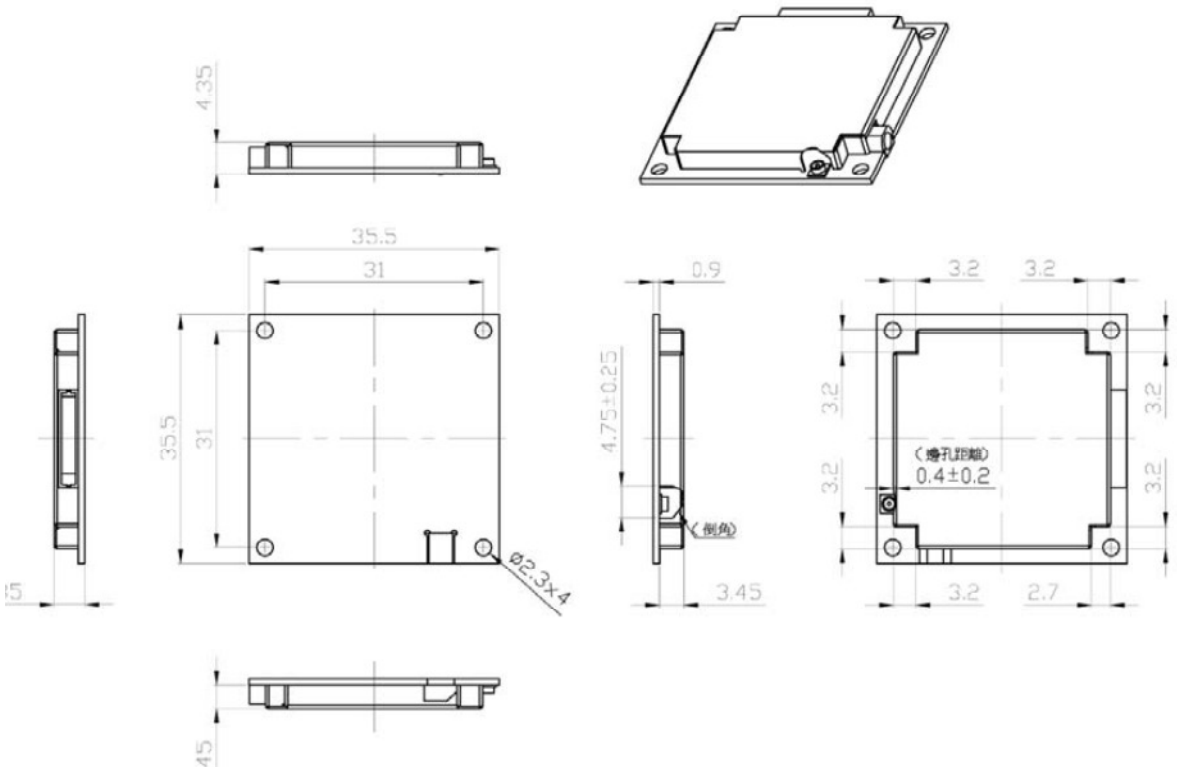
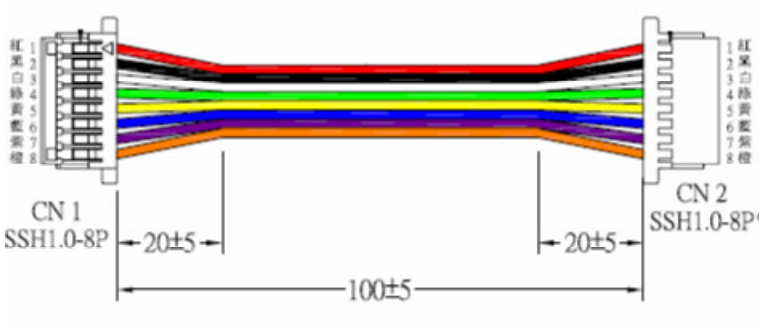
Mechanical Diagram



Pin Assignment



Pin	Signal	Colour	Description	Type
1	NC	Red	-	-
2	GND	Black	Ground	Ground
3	TX1	White	Serial Data Output	Output
4	RX1	Green	Serial Data Input (Command)	Input
5	Vin	Yellow	3.3V ~ 5V DC Power input	Power Input
6	GND	Blue	Ground	Ground
7	D+	Purple	USB+ (Optional)	Output
8	D-	Orange	USB- (Optional)	Input/Output