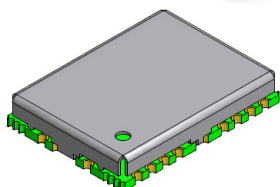


smart
positioning



Fastrax IT520

OEM GPS Receiver Module

- **Ultra High Sensitivity**
- **Low Power**
- **Tiny form factor**
- **Market leading performance**

GPS receiver for many Applications

Fastrax IT520 GPS module enables high performance navigation in the most demanding applications and solid fix even in harsh GPS environments. Market leading cold start sensitivity of -148dBm makes it possible to acquire satellite signals and start navigating in places where competing modules do not get even the first fix.

The Fastrax IT520 receiver is suited for asset tracking devices with covert installations (weak signal environment) and battery operated consumer products like personal navigation devices, handheld computers, cameras, and sports accessories. Fastrax IT520 is also an ideal receiver for GPS mouse and Mini PCI card applications, due to its compact design and easy interfacing with USB 2.0 option.

Highest Performance

The Fastrax IT520 has a market leading navigation sensitivity of -165dBm. This makes it possible to continue navigation in extremely difficult environments, such as indoors or urban canyons, where competing receivers have to give up.

IT520 Key Features:

- Tiny form factor 10.4 x 14.0 x 2.3mm
- Ultra High Sensitivity:
 - 148dBm (Cold Start Acquisition)
 - 165 dBm (Navigation)
- Low power consumption: 75mW @ 3.0V
- Configurable fix rate, up to 10Hz (default: 1Hz)
- NMEA protocol (default speed: 9600bps)
- 1PPS output
- WAAS/EGNOS support
- AGPS
- Optional USB 2.0 connection (IT520U)
- MediaTek MT3329 receiver

IT520 fix rate is configurable up to 10Hz by user command. This makes the IT520 ideal for extremely high dynamics applications.

Very high sensitivity also compensates the possible negative effect of host system EMI, enabling post-installations in multiple applications.

On-board high efficiency regulator

The Fastrax IT520 has internal high-efficiency switching regulator which makes it possible to use Li-Ion battery supply directly without any external regulators.

USB 2.0

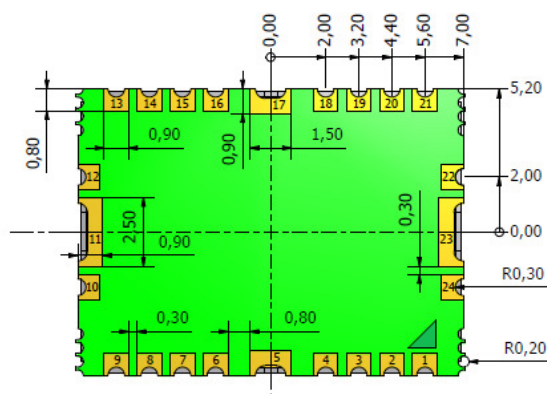
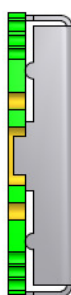
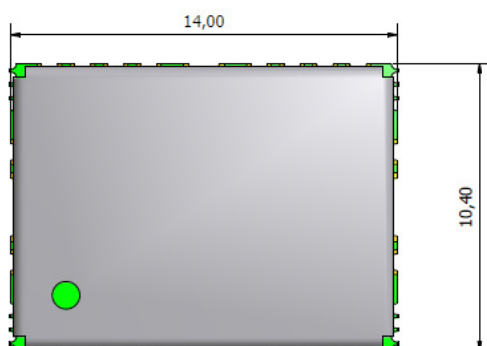
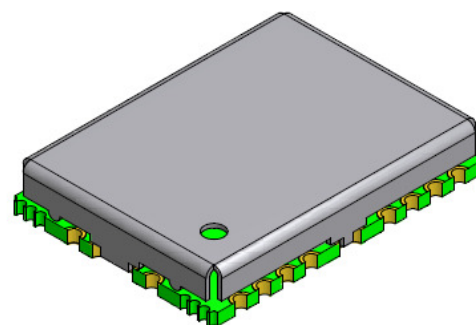
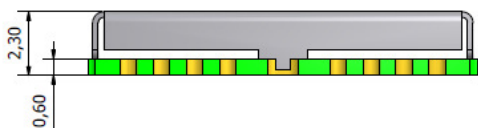
The Fastrax IT520U variant has built-in high speed USB 2.0 interface which can be used to interface with host devices.



Fastrax IT520

IT520 GPS Receiver Module			
Specifications			
General:	L1 frequency, C/A code (SPS)		
	22 tracking + 66 acquisition channels		
Update rate:	1 fix/s (user configurable, up to 10 fix/s)		
Accuracy (unaided):	Position:	1.8m (CEP95)	I/O ports:
	Velocity:	0.1m/s	24 contact LGA
	Time:	50ns RMS	Two asynchronous serial ports
TTFF:	Cold Start (out of the box):	34s typ.	1PPS output
	Warm Start	33s typ.	Antenna bias supervisor status pins
	Hot start:	1s typ.	
Sensitivity:	Acquisition (cold):	-148dBm	Protocol:
	Re-Acquisition:	-160dBm	NMEA 0183, 9600 baud
	Navigating/Tracking:	-165dBm	Chip set:
Power Drain (3.0V):	Navigating 1 fix/s:	75mW typ.	MediaTek MT3329
	Backup state:	15uW typ.	Dimensions:
			10.4mm x 14.0mm x 2.3mm (2.6 max)
Operating voltage:	Main Supply:	+3.0V...4.2V	Weight:
	Backup Supply:	+2.0V...4.2V	0.7g
			Operating temperature:
			-40C...+85C
			Storage temperature:
			-40C...+85C
			HW Options (IT520U):
			On-board USB 2.0 interface

SCALE (8 : 1)



Brochure rev 1.1 2010-05-04 (Subject to change without notice)