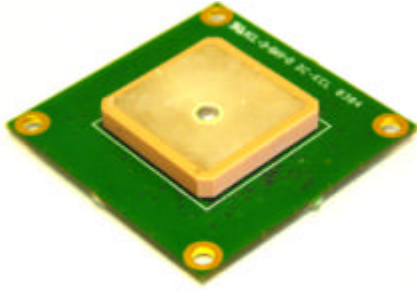


uPatch02-L OEM GPS Receiver



- Easy to use
- Low Power
- Market Leading Performance
- RS232 signal levels

uPatch02-L Key Features:

- Based on *iTRAX02/8* receiver architecture
- Size 45 x 45 mm to ensure good GPS signal levels
- Low power consumption – 55mA typical
- Very Fast TTFF (Cold start: 50s, Warm start: 35s, Hot start: 8s)
- NMEA 0183 protocol, optionally iTALK
- Data Logger
- Versatile I/O with several options:

Connector J1:

- Serial Port 0, RS232 levels
- Power supply, +3.0...+5.5 V
- Direct cable soldering

Connector J2:

- Serial Port 0, RS232 levels
- Power supply, +3.0...+5.5 V
- Wake up control input
- Boot mode control input
- Board-to-cable connector, 1x6 pins

Connector J3:

- 2nd Serial Port 1, RS232 levels
- Power supply, +3.0...+5.5 V
- Option for indicator output
- Board-to-cable connector, 1x6 pins

The uPatch02-L OEM GPS receiver board is based on the high performance iTrax02/8 GPS receiver architecture. The uPatch02-L is ideally suited for applications that require a GPS receiver with an integrated GPS antenna and where the state of the art GPS performance including fast TTFF even in extreme temperature is required.

Market Leading Performance

The uPatch02-L offers user configurable, low power consumption with three different operational modes. Full navigation, Idle Mode and Sleep Mode can be customized to perfectly meet the requirements of each specific GPS application. The uPatch02-L performance regarding sensitivity and very fast TTFF makes it applicable even for extremely demanding applications and environments with full industrial temperature range.

Functionality and I/O's

The uPatch02-L supports the basic GPS functionality plus support for versatile control for sleep state and even the Data Logger to store position information to the internal non-volatile Flash memory.

All navigational data is stored in non-volatile 8 Mbit Flash memory meaning that no external back-up battery is required.

The I/O connectivity includes two serial ports with RS232 signal levels. NMEA and iTalk protocols are supported with standard firmware. The I/O includes also power supply, ground, Wake up and Boot Mode control inputs. Power supply range is +3.0...+5.5V and typical current consumption is 55mA.

Applications that require only one serial port have two options: connectivity via J1 with direct cable soldering or alternatively J2 with board-to-cable connector 1x6 pins, FI-series from JAE-Connector.

Option for two serial ports require J2 & J3 connectors with board-to-cable connectors.

Internal Antenna

The module forms a ground plane for the internal patch antenna element. The size of the module is chosen for good reception of GPS signals.

Programmability

An extensive software development kit (*iSuiteSDK*) is available for customized functionality. Check also our Engineering Services to support your specific needs.

uPatch02-L Specifications:

Oper.Temp.: -40°C...+85°C

Power Supply: +3.0V min ...+5.5V max

Current drain: 55 mA typical

Protocols: NMEA 0183 V3.0 (default), RS232 signal levels

Proprietary iTalk binary protocol (optional)

Antenna: 25x25 mm patch element, directivity +2dBi typical

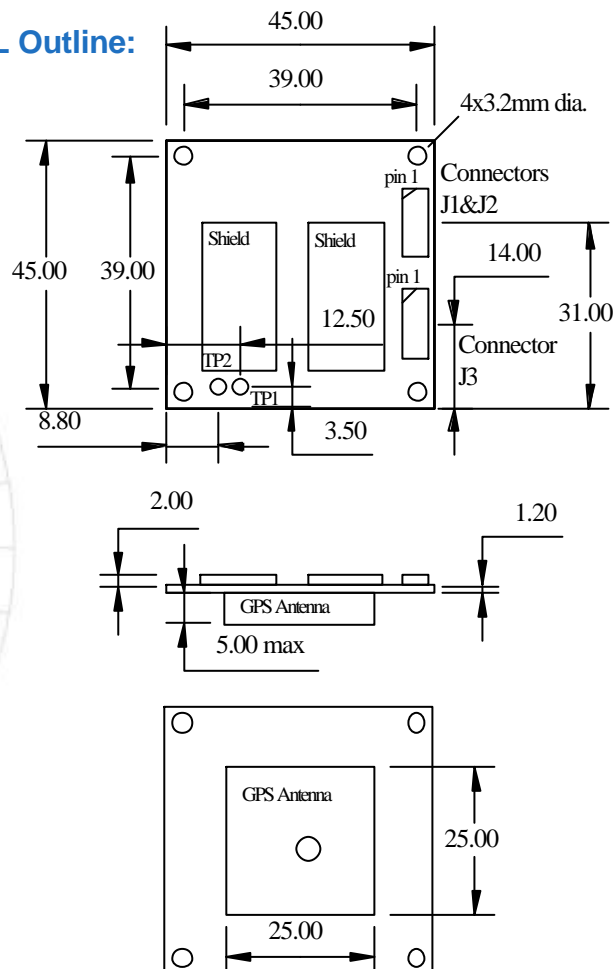
System conn.: 1x5 pads for direct cable soldering or one/two board-to-cable connectors from JAE-Connector, 1x6 pins, FI-series

Weight: TBD

uPatch02-L connectivity, J1:

Pin	Name	Description	I/O	Note
1	PWR	Power supply	I	
2	RXD_RS	Serial Port 0, receive	I	RS232 levels
3	GND	Power and signal ground	I/O	
4	TXD_RS	Serial Port 0, transmit	O	RS232 levels
5	N.C.	No connection, reserved for future usage	I	

uPatch02-L Outline:



For further information contact Fastrax Ltd. – sales@fastrax.fi or some of Fastrax authorized distributors.

Check also our web-site at <http://www.fastrax.fi>