

# FlexCom104-GPS *Communication Solution*

## GPS Receiver, Socket Modems & Serial Port

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TECHNOLOGIES

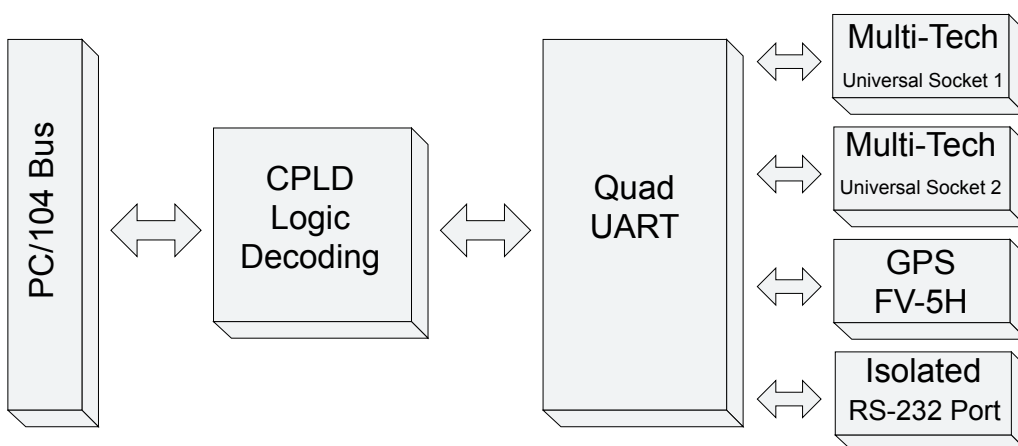


The FlexCom104-GPS is a PC/104 communication board that can support two Multi-Tech® Universal Socket Modems while providing GPS capabilities and I/O through an isolated RS-232 serial port. This multi-function design provides a single board solution for location and communication needs.

As with all Tri-M products, the FlexCom104-GPS, is engineered for rugged environments. A soldered-on GPS receiver and RS-232 port isolation are some of the design elements that make this solution right for harsh environments where exposure to dust, airborne particles, shock, and vibration can take a toll on embedded systems.

For applications where you need location information, as well as wired and wireless communications, the FlexCom104-GPS is a product that will meet your needs.

### Block Diagram



### Key Specifications

- **1 GPS Receiver**  
50 channels
- **2 Universal Socket Ports**  
Wireless communication
- **1 Isolated RS-232 Port**  
50V protection, 250Kbp/s
- **Input Voltage**  
+5VDC
- **Extended Temperature**  
-20°C to +60°C (-4°F to +140°F)

### Advantages

- **Integrated Functionality**  
Single board with multiple services
- **Soldered-on GPS**  
Ruggedized solution
- **Dual Socket Modem Ports**  
Variety of communication options
- **Isolated RS-232 Port**  
Protection from transients, spikes and surges
- **Configuration**  
GPS module speed 9600 N81 baud

### Our Capabilities

- **Application Engineering**
- **Rapid Development**
- **Engineered Systems**
- **Custom Software**
- **Industry Standards & Certification**
- **Exceptional Customer Experience**

**TRI-M**

Tri-M specialises in embedded computing for rugged environments. For over 28 years, we have supplied industry proven solutions for the Aerospace, Defence, Transportation, Undersea, Industrial and Mining industries. To learn more about our products and services, please visit us at [www.tri-m.com](http://www.tri-m.com).

## Specifications

### Module

RS-232 Serial Port	1
RS-232	RX, TX, CTS, RTS, COM
Power	+5V supplied over PC/104 bus
Supplied Oscillator Frequency	14.7456MHz

### UART Specifications

Model	STC16C554DIQ64
FIFOs	16 bytes
Ports	4

### Communication Modules

Universal Sockets	2
Manufacturer	Multi-Tech Systems, Inc.
Voltage	5V
Types	GSM/GPRS, CDMA, EDGE, CELL, Wi-Fi (802.11b), Bluetooth®

### GPS

Receiver Module	FV-5H
Channels	50 channels
Connector	SMA Female

### Configuration

GPS Module Speed	9600 N81 baud Configurable in the operating system
Status	GPS 1 Pulse-Per-Second LED

### Mechanical / Environmental

Dimensions	PC/104 form factor compliant <sup>1</sup> 90 × 96 × 15mm (3.55 × 3.75 × 0.60")
Weight	43.5g / 1.53oz
Operating Temperature <sup>2,3</sup>	-20°C to +60°C (-4°F to +140°F)
Relative Humidity	5% to 95% (non-condensing)

### Certifications



Manufactured in  
**ISO 9001:2008,**  
**ISO 14001:2004 &**  
**ANSI/ESD S20.20**  
Environments

- 1) The height is measured without the Universal Socket module installed. Some Universal Socket modules may be large enough to violate the PC/104 form factor.
- 2) Limited by the rechargeable backup battery for GPS.
- 3) The operating temperature for the Multi-Tech modules may vary.

## Ordering Information

### Models

<b>FlexCom104-GPS-PBF</b>	Flexible communications platform with 50-channel GPS receiver
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### Options

<b>Conformal Coating</b>
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Top View



Back View



### Note

For detailed dimensions, connector and pin spacing information, please see the *FlexCom104-GPS User Guide*.