



# Global Positioning Receiver for StackableUSB™ USB1700



## Features

- ✓ 12-channel, WAAS-capable GPS module
- ✓ Option passive antenna
- ✓ Small 1.85" x 1.78" board



The USB1700 module easily adds GPS capabilities to any StackableUSB Host computer or microcontroller. Powered by the Trimble Copernicus GPS core module, the USB1700 has extremely fast startup times for determining location and tracking movement. It performs well in challenging foliage-canopy, multipath, and urban-canyon environments. This small easy-to-use expansion module comes with sample software and full documentation.

The USB1700 module provides a 12-channel, WAAS-capable GPS function. The

RF antenna option improves performance by providing the GPS module a connection to a passive antenna

The 1.85" x 1.78" module is USB 2.0 compliant providing users the advantages of plug-and-play interfacing. The module stacks onto the top or bottom of any StackableUSB Host single board computer or microcontroller, forming a small, rugged, embeddable system, ideal for harsh environments. The USB1700 can connect to desktop PCs and laptops via a Mini-B USB connector for development.

### Software/Driver Support

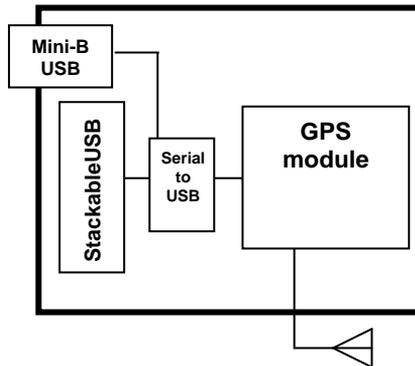
Windows XP  
Windows CE  
Linux  
Microcontroller firmware  
Sample programs

### Compatible Hardware

StackableUSB Host single board computers or microcontrollers  
PC Host desktops and laptops

### Mounting/Packaging

¼-Size 104™ Form Factor  
Standoffs, STDOFFUSB



## Specifications

### Mechanical:

- ❑ 1.85" x 1.78"
- ❑ ¼-Size 104™ Form Factor

### Power Requirements:

- ❑ +5v ±5% at 40mA typical, 100mA max

### Environmental:

- ❑ -40° to +85°C operating
- ❑ -40° to +85°C storage
- ❑ 5%-95% relative humidity, non-condensing

### GPS Module:

- ❑ Trimble Copernicus supports NMEA, TSIP, and TAIIP protocols
- ❑ Horizontal accuracy: <3m (50%), <8m (90%)
- ❑ Altitude accuracy: <10m (50%), <16m (90%)
- ❑ Velocity 0.06 m/sec
- ❑ Pulse-per-second accuracy: ±50ns

### External Connections:

- ❑ StackableUSB
- ❑ Mini-B USB connector
- ❑ MCX non-magnetic RF connector

### Internal Electrical Interface:

- ❑ StackableUSB
- ❑ USB 1.1 & 2.0 compatible, full-speed

### Development Kit:

- ❑ Base module
- ❑ Complete cable set
- ❑ Documentation, schematics, sample software

## Ordering Information:

### OEM Modules:

|            |   |
|------------|---|
| USB1700-ST | Global Positioning Receiver board with StackableUSB stack-through connector   |
| USB1700-PC | Global Positioning Receiver board with Mini-B USB connector for PC connection |
| CS1700     | Complete cable set  |
| 1700OPT1   | Antenna Connector   |

### Related Products:

|           |                           |
|-----------|---------------------------|
| STDOFFUSB | StackableUSB Standoff Kit |
|-----------|---------------------------|

## Development Board Kits\*

|           |  |
|-----------|--|
| DK1700-ST | Global Positioning Receiver board with StackableUSB stackthrough connector; Windows-ready development kit    |
| DK1700-PC | Global Positioning Receiver board with Mini-B USB connector for PC connection; Windows-ready development kit |

\*See Development Kit Specifications