MTI-5 (UART Interface)
Fast Acquisition Enhanced Sensitivity GPS Sensor Module

GENERAL DESCRIPTION
The MTI-5 is a compact all-in-one GPS module solution suitable for a broad range of end product applications, where fast and easy system integration and minimal development risk is required.

The MTI-5 is optimized for good performance and low cost. Having fast time-to-first-fix and enhanced sensitivity, the MTI-5 offers good navigation performance even in urban canyons.

Satellite-based augmentation systems, such as WAAS and EGNOS, are supported to yield improved accuracy.

UART interface is provided on the interface connector. Supply voltage of 3.6V~5.5V is supported.

KEY PRODUCT FEATURES
- SBAS (WAAS, EGNOS) support
- High sensitivity: -140dBm acquisition
  -152dBm tracking
- Fast TTFF: < 10 second hot start
  35 second warm start
  45 second cold start
- 5m CEP accuracy
- UART/TTL interface
- Low current consumption: 40mA, typical
| **SPECIFICATIONS** | **Receiver** | L1, 1575.42MHz  
 1.023MHz chip rate  |
<table>
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<tbody>
<tr>
<td><strong>Interface</strong></td>
<td>UART/TTL</td>
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<tr>
<td><strong>Power Supply</strong></td>
<td>3.6V ~ 5.5V</td>
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| **Accuracy**      | Position: 5m CEP  
  Velocity: 0.1m/sec, without SA  
  Time: ±100ns synchronized to GPS time  |
| **Current Consumption** | 40mA, typical  |
| **Operating Temperature** | -40°C ~ 85°C(not include battery)  |
| **Startup Time**  | Hot Start: < 10sec  
  Warm Start: 35sec, average  
  Cold Start: 45sec, average  |
| **Dimension**     | 32.0mm (L) x 32.0mm (W) x 8.2mm (H)  |
| **Weight**        | 13g         |
| **Reacquisition** | 1s          |
| **Sensitivity**   | -140dBm acquisition  
  -152dBm tracking  |
| **Dynamic Conditions** | Altitude: <18,000m  
  Velocity: <515m/s  
  Acceleration: <4G  |
| **GPS Protocol**  | NMEA-0183 V3.01  
  4800, 9600, 19200, 38400 baud  
  Default 4800bps, 8, N, 1  |
| **Datum**         | WGS-84      |