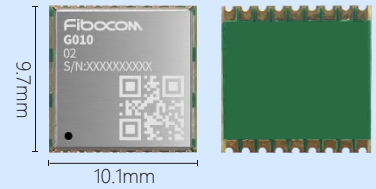


Fibocom G010

Standard Precision Dual-frequency GNSS Positioning Module

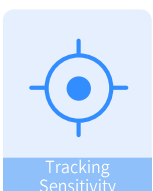
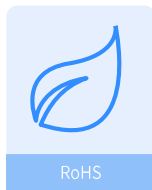
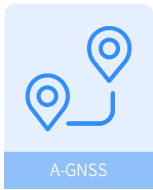
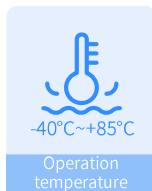
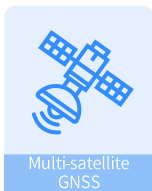


Fibocom G010 is a high-performance, dual-frequency and multi-constellation positioning module that supports all the signal of civil-navigation satellite systems (includes BDS、GPS、GLONASS、Galileo and QZSS).

Adopting the up-to-date power management technology, G010 can achieve GNSS sensing and positioning while maintain low power consumption. Combine with LNA and SAW Filter, G010 can acquire high-sensitivity positioning, as well as rapid signal tracking and acquisition even under the poor signal area. Besides, AGNSS can enhance the sensibility of acquisition in shorter time even under weak signal environment. The offline ephemeris feature can extend the operating time to up to 6 days. Moreover, G010 supports Antenna detection feature which is able to implement the detection of Open/Short circuit.

It's an ideal solution for real-time tracking, shared economy industries with the advantages of compact size and low power consumption.

Key Features



- Compact size 10.1*9.7*2.5mm
- Support Multi-satellite System: GPS、GLONASS、BDS、Galileo、QZSS and SBAS
- Supports single system independent positioning and multi-system combining positioning
- Dual SAW Filter, strengthen anti-jam capabilities
- Low Noise Amplifier(LNA), enhance receiving sensitivity
- Supports A-GNSS feature
- The best cost-effective standard-precision GNSS solution



| GNSS | | G010-02 | | | | | | | | | | | | | | | |
|-------------------------------|---|---------|-----|----|----|-----|-----|-----|-----|-----|---------|----|---------|-----|----|------|--|
| General Specifications | | | | | | | | | | | | | | | | | |
| Package | 18 PIN LCC | | | | | | | | | | | | | | | | |
| Dimensions (mm) | 10.1*9.7*2.5mm | | | | | | | | | | | | | | | | |
| Weight | Approximate 0.5g | | | | | | | | | | | | | | | | |
| Position Accuracy | GNSS 2.5m CEP | | | | | | | | | | | | | | | | |
| GNSS Features | | | | | | | | | | | | | | | | | |
| Product Model | GPS/QZSS | | | | | BDS | | | | | GLONASS | | Galileo | | | SBAS | |
| | L1C/A | L1C | L2C | L5 | L6 | B1I | B1C | B2I | B2a | B3I | L1OF | L2 | E1 | E5a | E6 | L1 | |
| G010-02 | ● | | | | | * | | | | | ● | | ● | | | ● | |
| Accuracy | Meter Level | | | | | | | | | | | | | | | | |
| GNSS Tracking Channels | 72 | | | | | | | | | | | | | | | | |
| Update Rate | 5Hz maximum | | | | | | | | | | | | | | | | |
| Time to First Fix (TTFF) | Cold Start: 1s Hot Start: 28s | | | | | | | | | | | | | | | | |
| Power Consumption | Operating (GNSS): 35mA@3.3V Standby: 14uA@3.3V | | | | | | | | | | | | | | | | |
| Antenna | Active antenna, Passive antenna | | | | | | | | | | | | | | | | |
| Operation Temperature | -40°C - +85°C | | | | | | | | | | | | | | | | |
| Safety Supervision | Antenna open circuit Detection & short circuit protection | | | | | | | | | | | | | | | | |
| Sensitivity | | | | | | | | | | | | | | | | | |
| Cold Start | -148dBm | | | | | | | | | | | | | | | | |
| Hot Start | -158dBm | | | | | | | | | | | | | | | | |
| Reacquisition | -159dBm | | | | | | | | | | | | | | | | |
| Tracking | -162dBm | | | | | | | | | | | | | | | | |
| Velocity & Time Accuracy | GNSS: 0.1m/s CEP 1PPS: 25ns | | | | | | | | | | | | | | | | |
| Operating Condition | | | | | | | | | | | | | | | | | |
| Main voltage | 3.0~3.6V | | | | | | | | | | | | | | | | |
| Digital I/O voltage | 3.0~3.6V | | | | | | | | | | | | | | | | |
| Backup voltage | 1.6~3.6V | | | | | | | | | | | | | | | | |
| Operation Limit | | | | | | | | | | | | | | | | | |
| Velocity | 515m/s | | | | | | | | | | | | | | | | |
| Altitude | 18,000m | | | | | | | | | | | | | | | | |
| Features | | | | | | | | | | | | | | | | | |
| LNA | ● | | | | | | | | | | | | | | | | |
| Data Logging | ● | | | | | | | | | | | | | | | | |
| Programmable (Flash) | ● | | | | | | | | | | | | | | | | |
| D-GNSS | ● | | | | | | | | | | | | | | | | |
| Interfaces | | | | | | | | | | | | | | | | | |
| UART | ● | | | | | | | | | | | | | | | | |
| I2C | * | | | | | | | | | | | | | | | | |
| Certification | | | | | | | | | | | | | | | | | |
| Certification | RoHS & REACH, CE | | | | | | | | | | | | | | | | |

* =Supported upon request with special firmware

