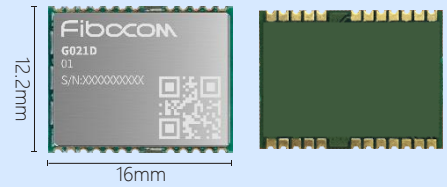


Fibocom G021D

High Precision Multi-band GNSS Raw Data Module

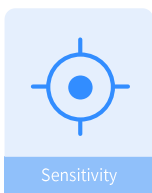
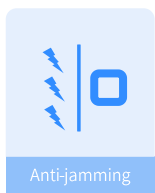
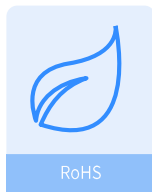
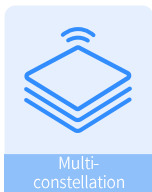
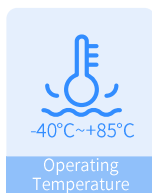


G021D is a high-performance and dual-band GNSS module that support all global GNSS constellations: GPS, GLONASS, BDS, Galileo and QZSS. Compared with GPS-only receiver, them module enables multiple GNSS systems that enhances positioning performance.

The module supports AGNSS features to improve the accuracy of positioning, allowing high-sensitivity and high-precision positioning even in the poor signal environment, as well as fast signal tracking and acquisition. The offline ephemeris feature can extend the operating time to up to 6 days. Moreover, G021D supports antenna detection feature which is able to implement the detection of Open/Short circuit.

G021D integrates efficient power management architecture, while providing high-precision, high-sensitivity and low-power GNSS solution, which make it suitable for high precision industries, like precision agriculture, surveying and mapping, deformation monitoring, Unmanned Aerial Vehicle(UAV), etc..

Key Features



- Ultra-compact size 12.2mm*16.0mm*2.3mm
- Multi- constellation systems: GPS, GLONASS, BDS, Galileo, QZSS
- Concurrent reception of multi-band GNSS signals by 3 RF settings: L1&L5/L1&L2/L1&L6
- State-of-art low power consumption
- Support multi-band/system high-precision raw data output
- Built-in LNA for increased sensitivity



GNSS		G021D-01														
General Specifications																
Package	24 PIN LCC															
Dimensions(mm)	12.2*16.0*2.4mm															
Weight	Approx.0.9g															
Position Accuracy	GNSS <1m CEP															
Features		[1]Supported by default. B/C mode needs to be supported by upgrading firmware. [2]: Only E5a and pilot channel are supported. [3]: L2CM is supported.														
RF mode A(L1+L5) [1]																
Product	GPS/QZSS					BDS					GLONASS		Galileo			
	L1C/A	L1C	L2C	L5C	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5a	E6	
G021D-01	●			●		●			●		●		●	●[2]		
RF mode B(L1+L2)																
Product	GPS/QZSS					BDS					GLONASS		Galileo			
	L1C/A	L1C	L2C	L5C	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5a	E6	
G021D-01	●		●[3]			●		●			●	●	●			
RF mode C(L1+L6)																
Product	GPS/QZSS					BDS					GLONASS		Galileo			
	L1C/A	L1C	L2C	L5C	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5a	E6	
G021D-01	●				●	●				●	●		●		●	
Accuracy	Centi-Meter															
GNSS Tracking Channels	40															
Update Rate	10Hz Maximum															
Time to First Fix (TTFF)	Hot Start: 1s Cold Start: 24s															
Power Consumption	GPS+QZSS (L1): 22mA@3.3V GNSS (L1+L5): 34mA@3.3V GNSS (L1+L2): 34mA@3.3V GNSS (L1+L6): 34mA@3.3V Standby: 12uA@3.3V															
Antenna	Active Antenna															
Operating temperature	-40°C - +85°C															
Safety Supervision	Antenna short circuit protection and open circuit detection															
Sensitivity																
Cold Start	-148dBm															
Hot Start	-158dBm															
Reacquisition	-160dBm															
Tracking & Navigation	-162dBm															
Velocity & Navigation	GNSS: 0.1m/s CEP 1PPS: 20ns															
Operating Condition																
Main voltage	2.0~3.6V															
Digital I/O voltage	1.8~3.6V															
Backup voltage	1.8~3.6V															
Operation Limit																
Velocity	515m/s															
Altitude	18,000m															
Features																
Raw Data	●															
Data Logging	●															
Programmable (Flash)	●															
D-GNSS	●															
Interface																
USB	*															
UART	●															
SPI	*															
I2C	*															
Certification																
Regulatory	RoHS, REACH*, FCC, CE															

* =特殊固件支持

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