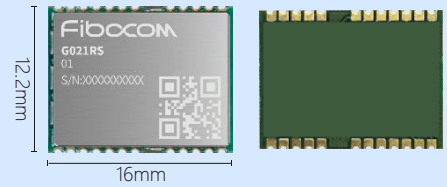


Fibocom G021RS

High Precision

Single-band Multi-constellation GNSS Module with RTK Functions

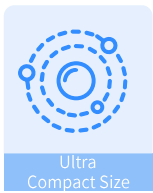


Fibocom G021RS is a single-band, multi-constellation GNSS module which support all five global GNSS constellation systems: GPS, GLONASS, BDS, Galileo and QZSS.

With build-in single-band RTK engine, G021RS can achieve centimeter-level single-band accuracy. 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, G021RS supports antenna detection feature which is able to implement the detection of Open/Short circuit.

It's an ideal solution for automotive navigation, real-time asset tracking, sharing economy related services, with the advantages of high sensitivity and high precision.

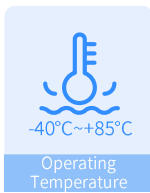
Key Features



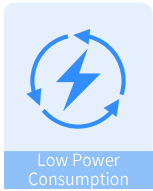
Ultra Compact Size



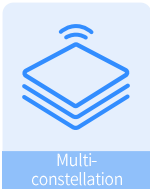
Multi GNSS



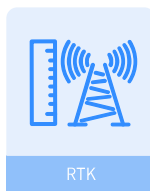
-40°C~+85°C
Operating Temperature



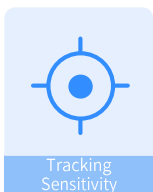
Low Power Consumption



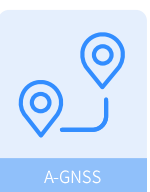
Multi-constellation



RTK



Tracking Sensitivity



A-GNSS

- Multi-constellations GNSS: GPS, BDS, GLONASS

Galileo and QZSS

- Centimeter-level GNSS positioning

- Integrated Real Time Kinematics (RTK)

- Integrated AGNSS function

- Configurable peripheral IO pins

- Low power consumption



GNSS		G021RS															
General Specifications																	
Package	24 PIN LCC																
Dimensions(mm)	12.2*16.0*2.4mm																
Weight	Approx. 0.9g																
Position Accuracy	GNSS 2.5m CEP D-GNSS: <1.0m CEP RTK: 1.0cm+1 ppm(H), 3.5cm+1 ppm(V)																
GNSS Features																	
Product	GPS/QZSS					BDS					GLONASS		Galileo			IRNSS	
	L1C/A	L1C	L2C	L5	L6	B1I	B1C	B2I	B2a	B3I	L1OF	L2	E1	E5a	E6	L5	
G021RS	●					●					●		●				
Accuracy	Centi-Meter																
GNSS Tracking Channels	40																
Update Rate	Maximum 10Hz																
TTF	Hot Start: 1s Cold Start: 28s RTK Convergence: <60s																
Power Consumption	Operating: 32mA@3.3V Standby: 13uA@3.3V																
Antenna	Active antenna																
Operating temperature	-40°C - +85°C																
Safety Supervision	Antenna short circuit protection and open circuit detection																
Sensitivity																	
Cold start	-147dBm																
Hot start	-153dBm																
Reacquisition	-156dBm																
Tracking & Navigation	-160dBm																
Velocity & Navigation	GNSS: 0.1m/s CEP D-GNSS: 0.05m/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																	
D-GNSS	●																
Data Logging	●																
Programmable (Flash)	●																
Raw Data	●																
RTK	●																
Interface																	
USB	*																
UART	●																
SPI	*																
I2C	*																
Certifications																	
Regulatory	Europe: CE, RoHS*																

* =Support upon request with special firmware

