

Dual-band RTK Module

CM260R

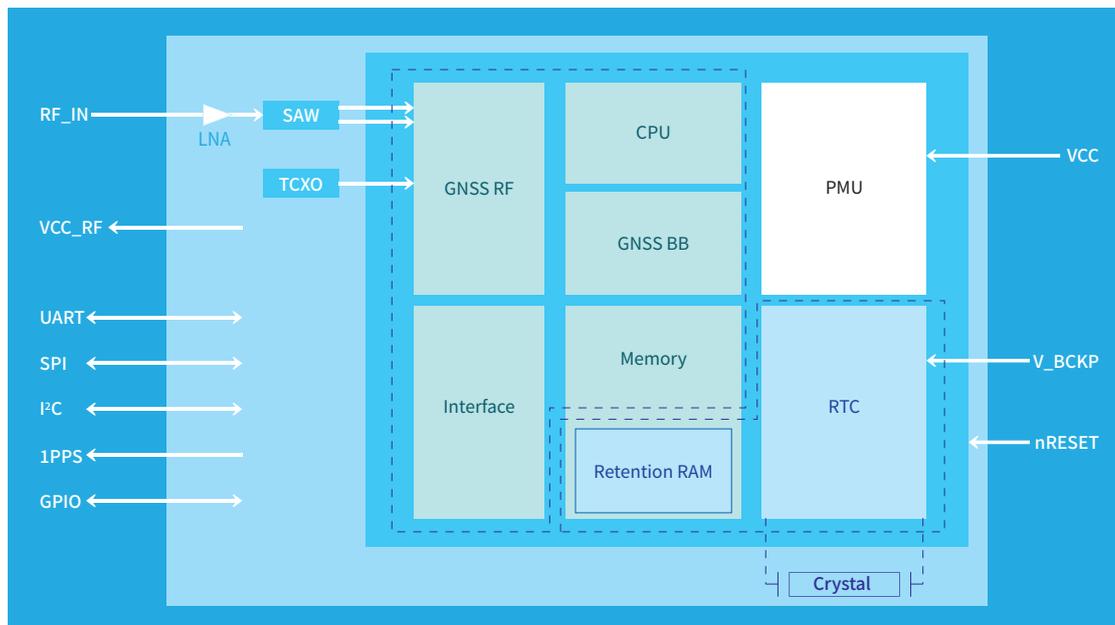
CM260R is a high-performance, low-power dual-band multi-system RTK module that supports five positioning systems including GPS, BDS, Galileo, GLONASS, QZSS. It enables RTK centimeter-level positioning, with a maximum positioning output rate of 10 Hz, and is suitable for industrial-grade application scenarios with high requirements for high precision and high performance.



Technical advantages

- » L1+L5, GPS/BDS/GLONASS/Galileo/QZSS
- » Dual-band, RTK algorithm inside with centimeter accuracy
- » High update rate(up to 10Hz) for highly dynamic applications
- » Real-time and predicted A-GNSS
- » High sensitivity: -148 dBm (Acquisition)
-164 dBm (Tracking)
- » Package: 16.0 x 12.2 x 2.4 (mm), 24-pin LCC

Product block diagram



Product Specifications

Performance Index

Supported GNSS Constellation	BDS: B1I, B1C, B2a GPS: L1C/A, L5 Galileo: E1, E5a QZSS: L1, L5 GLONASS: L1
Horizontal Positioning Accuracy	Single-Point Positioning: 1.0m RTK Positioning: 1cm+1ppm
Rate Accuracy ^①	0.1m/s
TTF ^②	Cold start: 24s Hot start: 1s Re-acquisition: 1s
Sensitivity ^{③④}	Cold Start: -148dBm Warm Start: -155dBm Re-acquisition: -156dBm Tracking: -164dBm
Power Consumption ^⑤	Tracking: 100mW Acquisition: 108mW
Update rate	1/2/5/10Hz
Data format	NMEA-0183, ICOE protocol

Others

Input Voltage	2.7V~3.6V
Communication interface	UART x 2, I ² C* x 1
Operating temperature	-40~+85°C
Storage temperature	-40~+125°C
Package	16.0 x 12.2 x 2.4 (mm), 500pcs/reel
Application restrictions	Acceleration ≤ 4 g Altitude ≤ 18,000 m Velocity ≤ 515 m/s

Note:

- ① Simulated linear motion at constant velocity (33 m/s)
- ② Instrument-measured satellite signal strength: -130 dBm
- ③ C/N0 of 41 dB-Hz achieved at -130 dBm signal level
- ④ With external Low-Noise Amplifier (LNA) implementation
- ⑤ The test result is based on DCDC supply mode

* This feature is still under development.

Final performance parameters will be documented in the subsequent product release specification.

Application scenarios



Handheld devices



Two-wheelers



Safety Helmet