

GPS Antenna Module

WGM-T8

- Concurrent reception of GPS / QZSS, GLONASS, BeiDou, Galileo.
- Market leading acquisition and tracking sensitivity.
- Optimized accuracy and availability with Survey-in and single-satellite timing.
- Minimized power consumption with low duty-cycle operation.
- Maximized reliability with integrity monitoring and alarms.



Performance Data WGM-T8 Series

Receiver Type	72-channel u-blox M8 engine, GPS / QZSS L1 C / A, GLONASS L10F, BeiDou B1 SBAS L1 C / A: WAAS / EGNOS / MSAS / GAGAN Galileo E1B / C
Update Rate	Up to 4 Hz
Position Accuracy	Standalone 2.5 m CEP
Acquisition	Cold start 28s, Warm start 3s, Hot start 1s
Sensitivity	Cold start -148 dBm, Hot start -157 dBm, Tracking -167 dBm
Assistance	AssistNow GNSS Online, OMA SUPL & 3GPP compliant AssistNow GNSS Offline (up to 35 days), AssistNow Autonomous (up to 6 days)

Raw Data and IMES

Measurement Data	GPS, GLONASS, BeiDou, SBAS and QZSS (Carrier phase; Code phase & pseudo range; Doppler)
Message Dta	GPS, GLONASS, BeiDou, SBAS, QZSS / L1S and IMES beacons (50/250 bps auto-baud)

Features-Timing

Timing Accuracy	Clear sky: ≤ 20 ns
Time-Pulse Frequency	0.25 Hz – 10 MHz
Time-Pulse Jitter	± 11 ns
Time-Mark Resolution	21 ns
Integrity Reports	RAIM active, phase uncertainty time-pulse rate/duty-cycle

Electrical Data

DC Supply	5V~28V
Power Consumption	Acquisition < 350mW, Tracking < 220mW

Interfaces

Serial Interfaces	UART / USB
Protocols	NMEA / UBX binary / RTCM
1PPS Output	Programmable duration and polarity

Dynamics

Velocity	Up to 500 m/s
Altitude	Up to 50,000 m (max)
Acceleration	Standard up to 4 g

Environmental Data

Operating Temp.	-40 ⁰ C to +85 ⁰ C
Storage Temp.	-40 ⁰ C to +85 ⁰ C

RoHS Compliant (lead-free)