

## GPS Antenna Module

WGM-U8

- Concurrent reception of up to 3 GNSS (GPS, Galileo, GLONASS, BeiDou).
- Industry leading  $-167$  dBm navigation sensitivity.
- Industry lowest current consumption.
- Superior position accuracy in urban canyons.
- Security and integrity protection.
- Support for all satellite augmentation systems.
- Operating temperature range of  $-40^{\circ}$  to  $+105^{\circ}\text{C}$  for automotive grade chip.



### Performance Data WGM-U8 Series

Receiver Type	72-channel u-blox M8 engine, GPS/QZSS L1 C / A, GLONASS L10F, BeiDou B1I, Galileo E1B / C SBAS L1 C / A: WAAS / EGNOS / MSAS / GAGAN
Update Rate	Single GNSS Up to 18 Hz, 2 Concurrent GNSS Up to 18 Hz
Position Accuracy	Standalone 2.0 m CEP, SBAS 1.0 m CEP
Acquisition	Cold start 26s, Warm start 2s, Hot start 1s
Sensitivity	Cold start $-148$ dBm, Hot start $-157$ dBm, Tracking $-167$ dBm
Assistance	AssistNow GNSS Online AssistNow GNSS Offline (up to 35 days), AssistNow Autonomous (up to 6 days)

### Electrical Data

DC Supply	5V~28V
Power Consumption	Acquisition $< 250\text{mW}$ , Tracking $< 120\text{mW}$

### 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.	$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
Storage Temp.	$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

RoHS Compliant (lead-free)