MAX-7 series

Compact u-blox 7 GPS/GNSS modules

The MAX-7 series is the newest family of standalone GPS/GNSS modules from u-blox. With the exceptional performance of the u-blox 7 multi-GNSS (GPS, GLONASS, Galileo, QZSS and SBAS) engine, the MAX-7 series delivers high sensitivity and minimal acquisition times in the ultra compact MAX form factor.

The MAX-7 series provides maximum sensitivity while maintaining low system power. The MAX-7C is optimized for cost sensitive applications. The MAX-7Q provides best performance and lowest power, while the MAX-7W provides best performance and is optimized for active antennas. The industry proven MAX form factor allows easy migration from MAX-6 modules. Sophisticated RF-architecture and interference suppression ensure maximum performance even in GPS-hostile environments.

- Highlights

- Small and low power multi-GNSS modules
- Cost and performance optimized versions
- Simple integration with u-blox wireless modules
- Easy migration from MAX-6 family

- Features

- Receiver type
  - 56-channel u-blox 7 engine
  - GPS/QZSS L1 C/A, GLONASS L1 FDMA,
  - SBAS: WAAS, EGNOS, MSAS
- Navigation update rate up to 10 Hz
- Accuracy GPS / GLONASS
  - Position 2.5 m CEP / 4.0 m
  - SBAS 2.0 m CEP / n.a.

- Assistance
  - AssistNow Online
  - AssistNow Offline
  - AssistNow Autonomous
  - OMA SUPL & 3GPP compliant
- Oscillator: TCXO (MAX-7Q/7W), crystal (MAX-7C)
- RTC crystal: built-in (MAX-7Q/7W)

- Acquisition GPS / GLONASS
  - Cold starts: 29 s / 30 s
  - Aided starts: 5 s / n.a.
  - Reaquisition: 1 s / 3 s
- Sensitivity GPS / GLONASS
  - Tracking: −162 dBm / −158 dBm
  - Cold starts: −148 dBm / −140 dBm
  - Warm starts: −148 dBm / −145 dBm
- Anti jamming: active CW detection and removal
- Memory: onboard ROM
- Supported antennas: active and passive