



R12 GPS Specification

Two GPS configurations are available:

U-Blox7 Discreet GPS & Gobi WWAN with GPS

Parameter	Navisys GE-730 (U-Blox7)	Sierra Wireless EM73x5 Gobi
Satellites	GPS	GPS + GLONASS
Channels	56 channels	12 channels
Protocol	NMEA 0183 V2.3 (compatible with V3.0)	NMEA 0183 V3.0
Acquisition time (hot / warm / cold)	1sec / 28sec / 30sec	1sec / 29sec / 32sec
Accuracy (CEP 50%) (h / v / s)	< 2m (SBAS) / --- / < 0.1m/s	< 2m / < 4m / < 0.2m/s
Sensitivity (tracking / acquisition)	-161dBm / -147dBm	-161dBm / -145dBm

CEP : circular error probable

h/v/s : horizontal / vertical / speed

SBAS : Satellite Based Augmentation System

Summary:

Motion provides two options for GPS capability to ensure users have a choice that fits the needs of their workflow.

Location dependencies:

For use in open areas, the performance will be very similar between options. In areas where the horizon is blocked by geographic features or large structures the Gobi GPS is likely to perform better due to the ability to acquire more satellites from overhead.

The discrete U-Blox7 GPS device supports Satellite Based Augmentation Systems (SBAS) to increase accuracy, including the Wide Area Augmentation System (WAAS) for increased accuracy throughout North America and Hawaii, the European Geostationary Navigation Overlay Service (EGNOS) for increased accuracy throughout Europe, and the Multi-functional Satellite Augmentation System (MSAS) for increased accuracy in Japan. In areas where the augmentation systems are not available, the U-Blox7 GPS device will provide an accuracy of < 2.5m (CEP 50%).