

GNSS SPECIFICATIONS						
MAX-M8Q	GPS & GLONASS	GPS	GLONASS	BeiDou	Galileo	
Frequency band	72x u-blox M8 engine channels GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1SAIF, GLONASS L1OF, BeiDou B1I, Galileo E1B/C					
Horizontal positioning accuracy	2.5m CEP	2.5m CEP	4.0m CEP	3.0m CEP	-	
Max navigation update rate	10Hz	18Hz	18Hz	18Hz	18Hz	
Time-To-First-Fix	Cold starts	26s	29s	30s	34s	45s
	Hot starts	1s	1s	1s	1s	1s
	Aided starts	2s	2s	2s	3s	7s
Sensitivity	Tracking and navigating	-167 dBm	-166 dBm	-166 dBm	-160 dBm	-159 dBm
	Re-acquisition	-160 dBm	-160 dBm	-156 dBm	-157 dBm	-153 dBm
	Cold starts	-148 dBm	-148 dBm	-145 dBm	-143 dBm	-138 dBm
	Hot starts	-157 dBm	-157 dBm	-156 dBm	-155 dBm	-151dBm
PPS accuracy	RMS	30ns	30ns	30ns	30ns	30ns
	99%	60ns	60ns	60ns	60ns	60ns
PPS frequency	0.25Hz..10MHz (configurable)					
Velocity accuracy	0.05m/s					
Heading accuracy	0.3 degree					
Operational limits	Acceleration (max): 4g					
	Altitude (max): 50000m					
	Velocity (max): 500m/s					
OTHER SPECIFICATIONS						
Communication interface	UART (4800~921600bps, 9600bps by default), I2C (max 400KHz)					
Update rate	1Hz (default), 18Hz (max)					
Protocol	NMEA 0183 Version 4.0 (V2.1, V2.3 or V4.1selectable), UBX, RTCM 2.3					
Power supply	5V					
Overall current	<40mA @5V (Continue mode)					
Module current	23mA @3V (Continue mode, tracking status)					
Operating temperature	-40°C ~ 85°C					