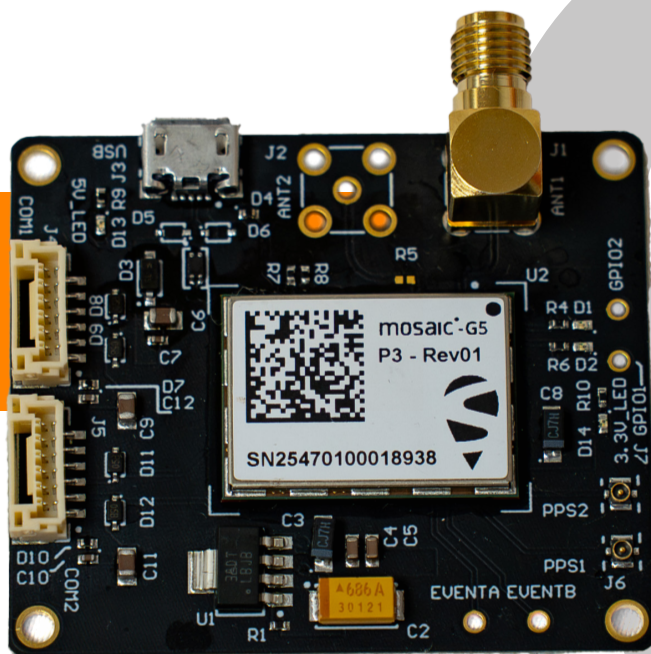


GPS ||| G5 P3

KEY FEATURES

- Small size, advanced functionality
- All-in-view satellite tracking: multi-constellation, quad-band GNSS receiver
- Best-in-class RTK centimeter-level positioning
- Industry-leading ultra-low power consumption



GNSS technology	789 hardware channels for simultaneous track of all visible supported satellite signals: • GPS : L1C/A, L1C, L2C, L2PY,L5 • GLONASS : L1CA, L2CA,L2P, L3 CDMA • Beidou : B1I, B1C, B2a, B2I, B2b, B3I • Galileo : E1,E5a, E5b, E6 • QZSS: L1C/A, L1 C/B, L2C, L5, L6
Septentrio's patented GNSS+ technologies	AIM+ Advanced functionality with jamming and spoofing detection automatic interference mitigation APME+ a posteriori multipath estimator for code and phase multipath mitigation LOCK+ superior tracking robustness under heavy mechanical shocks or vibrations IONO+ advanced scintillation mitigation RAIM+ receiver autonomous integrity monitoring

Performance		
RTK Performance [open sky conditions, RMS levels, baseline <40km]		
Horizontal Accuracy	0.6 + 0.5 ppm	
Vertical Accuracy	1 cm + 1 ppm	
Initialization time	7s	
Other Positioning Modes Accuracy [open sky conditions, RMS levels]		
	Horizontal	Vertical
Standalone	1.2m	1.9m
DGNSS	0.4m	0.7m
Velocity Accuracy [open sky conditions, RMS Levels]	3 cm/s	
Maximum Update Rate		
Position	20 Hz	
Measurements only (P3 only)	20HZ	
Latency [99.9%]	<10 ms	
Time Precision		
PPs resolution	1.4 ns	
Event accuracy	< 3 ns	
Time to First Fix		
Cold Start	< 35 s	
Warm Start	< 10 s	
Re-acquisition	1 s	
Tracking Performance (C/NO threshold)		
Tracking	20 dB-Hz	
Acquisition	30 dB-Hz	

FEATURES	
PROTOCOLS	Septentrio Binary Format (SBF) NMEA 0183, V2.3, v3.03, V4.0 RTCM v2.x, v3.x (MSM included) input
INTERFACES	2 UART (LVTTTL, up to 4 Mbps) USB device (2.0, HS up to 480Mbps) 2 GPIO user programmable 2 Event markers 2 Configurable PPS out
PHYSICAL AND ENVIRONMENTAL	
PACKAGE	
Size	42x50x2.4 mm / 1.65x1.97x0.09 in
Weight	14.00 g / 0.49 oz
ELECTRICAL	
Antenna connection	SMA
Antenna pre amplification range	15-50 dB SA, 15-35 dB DA
Antenna bias voltage	3.0-5.5 V
	Build-in current limit (150 mA)
Input voltage	3.3 VDC
Power Consumption	0.44 W typ / 0.57 Max
ENVIRONMENTAL	
Operating temp	-40 to 85° C , -40 to 185° F
Storage temp	-55 to 85° C , -67 to 185° F
Humidity	5% - 95% (non-condensing)
Vibration (chip only)	IEC 60721-3-5 Profile 5M3
	MIL-STD-810H 514.8 - Category 4
	MIL-STD-810H 516.8 - Procedure I
Certification	RoHS, WEEE, CE, FCC, ISED

