ROBUST GNSS RECEIVER FOR CONTESTED ENVIRONMENTS

FEATURES

Benefits

- High accuracy in completely standalone mode by implementing HAS PPP corrections free of charge
- Robust jamming and spoofing mitigation technology proven in GNSS contested environment
- More than 400 hardware channels for simultaneous tracking of all visible supported satellite signals:
  - GPS, Galileo, Beidou, GLONASS
  - SBAS: Egnos, WAAS, GAGAN, MSAS, SDCM

Note: *As the Galileo HAS service and the constellations it supports evolve, we may extend support accordingly.*

Protocols

NMEA and Real-time binary **Custom Format** (proprietary extension) with added support for **raw measurements** and **PVT**.

Interfaces

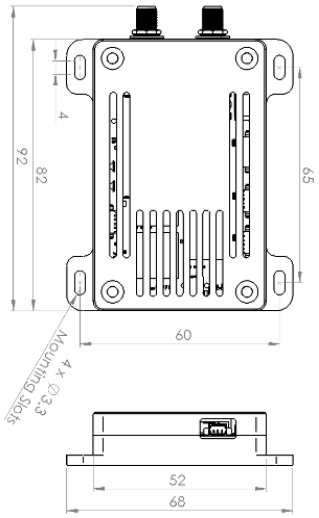
- USB-C (for power and communication – UART5)
- GNSS Receiver USB connection
- UART2 port and power
- UART4 port
- GNSS receiver EVENT signals and power
- CAN communication
- Debug UART1 & Processor USB OTG

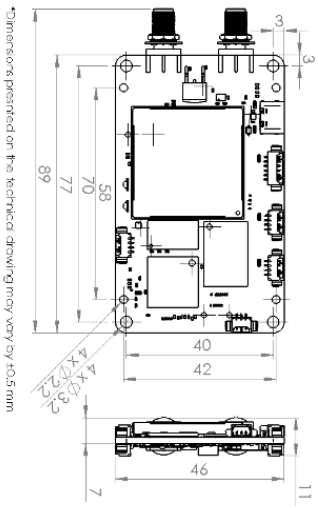
PERFORMANCE

Numbers of channels	448
Frequencies and signals	**GPS**: L1C/A, L1PY, L2C, L2P, L5 **GLONASS**: L1CA, L2CA, L2P, L3 CDMA **Beidou**: B1I, B1C, B2a, B2b, B2I, B3 **Galileo**: E1, E5a, E5b, E5 AltBoc, E6 **QZSS**: L1C/A, L1 C/B, L2C, L5 **Navic**: L5 **SBAS**: Egnos, WAAS, GAGAN, MSAS, SDCM (L1, L5)
RTK performance	Horizontal accuracy 0.6 cm + 0.5 ppm Vertical accuracy 1 cm + 1 ppm Initialisation time 7 s

		Horizontal	Vertical
Other positioning modes accuracy (Open Sky conditions)	HAS	0.3 m	0.4 m
	Standalone	1.2 m	1.9 m
	SBAS	0.6 m	0.8 m
	DGNSS	0.4 m	0.7 m
Velocity accuracy	3 cm/s		
Maximum update rate	50 Hz (1Hz for HAS accuracy)		
Time to first fix	Cold start < 45 s Warm start < 20 s Re-acquisition 1 s		
Tracking performance	Tracking 20 dB-Hz Acquisition 33 dB-Hz		
Protocols	Custom Binary Format NMEA 0183		

PHYSICAL AND ENVIRONMENTAL





Electrical

Antenna pre-amplification range	15-50 dB	
Antenna bias voltage (max 150mA)	3.0-5.5 V	3.3V typ.
Input voltage	4.5-6 VDC	
Power consumption	max. 1W	
Operating temperature	-30 to +65 °C	

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