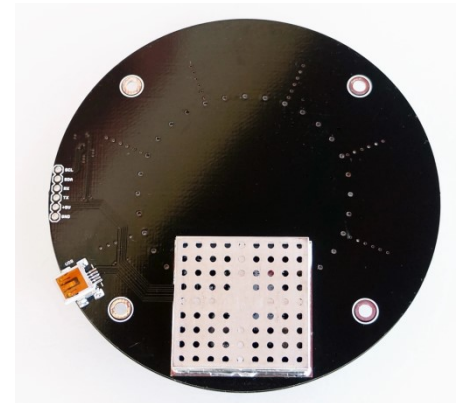


## Features:

- Continuous navigation in urban environment, even at signal loss, with speed or wheel-tick information from the vehicle
- On-board low noise 3.3 V voltage regulator and RF filter for noise blocking
- **USB, UART** (Tx, Rx) **RAW** data out and **I2C** (SDA, SCL)(for LIS3MDL)
- **Mini USB** connector
- **Dual band** GPS, GLONASS, BeiDou antenna
- **LIS3MDL** I2C magnetometer
- Time pulse LED
- u-center GPS evaluation software
- Extensive visualization and evaluation features
- EMI protection
- Backup supercapacitor
- Dimensions: Round **100 mm**; hole distance **60x60 mm**
- Weight: **113 gr.**

## Reference: ELT0056



### GNSS FEATURES

Receiver type	72-channel u-blox M8 engine GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1I, Galileo E1B/C, SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN
GNSS platform	Concurrent GNSS
GNSS bands	L1C/A, L10F, E1-B/C, B1I
Oscillators	Crystall Oscillator

### PERFORMANCE

Position accuracy (GPS)	1.5 m CEP (with SBAS) 2.5 m CEP (without SBAS)
Attitude accuracy (GPS)	3.0 m CEP (with SBAS)
Position error during GNSS loss	Rear wheel ticks 12% Gyro + speed pulse 3% Gyro + speed pulse + accelerometer 2%
Max nav. update rate	30 Hz
Nav update rate (PVT)	2 Hz
Navigation latency	<10 ms
Max sensor output rate	100 Hz
Acquisition	Cold start      Hot start      Aided start
GPS+GLONASS	26 s      1.5 s      3 s
GPS	30 s      1.5 s      3 s
GLONASS	31 s      1.5 s      3 s
BeiDou	39 s      1.5 s      7 s
Galileo	57 s      1.5 s      7 s
Velocity accuracy	0.05 m/s
Heading accuracy	1 deg
Sensitivity (GPS+GLO):	
Tracking and Navigation	-167 dBm
Reacquisition	-160 dBm
Cold start	-148 dBm
Hot start	-157 dBm

### OTHER FEATURES

Anti-spoofing	Spoofing detection
Memory	Flash
Operating temperature	0 °C to +50 °C
Supply voltage	4.5 V to 5.5 V
Supply current	<55 mA