



### Features:

- On-board low noise 3.3 V voltage regulator with noise 2 nV/√Hz
- **USB, I2C** (SDA, SCL), **SPI** and two **UART** (Tx, Rx) interfaces
- **Mini USB** connector
- 12 pin JST SH connector
- SMA antenna connector
- u-center Evaluation Software
- Extensive visualization and evaluation features
- Time pulse LED, GEO LED, RTK LED
- Backup supercapacitor
- Dimensions: **38x22 mm** without SMA
- Weight: **9 gr.**

### Reference: ELT0098

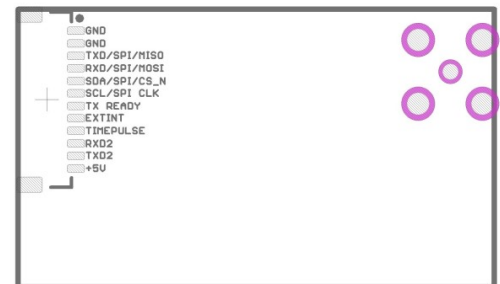


### GNSS FEATURES

Receiver type	184-channel u-blox F9 engine Beidou, Galileo, GLONASS, GPS/QZSS
GNSS platform	Concurrent GNSS
GNSS bands	L1C/A, L1OF, E1-B/C, B1I, L2C, L2OF, E5b, B2I
Oscillators	TCXO

### PERFORMANCE

Baseline accuracy	0.01 m		
Heading accuracy	0.4 deg		
Convergence time			
GPS+ any other system	< 10 s		
GPS only	< 30 s		
Acquisition	Cold start	Hot/Aided start	Nav. update rate
GPS+GLO+GAL+BDS	25 s	2 s	8 Hz
GPS+BDS+GAL	25 s	2 s	8 Hz
GPS+GAL	30 s	2 s	10 Hz
GPS+GLO	26 s	2 s	10 Hz
GPS+BDS	28 s	2 s	10 Hz
GPS	30 s	2 s	10 Hz
Velocity accuracy	0.05 m/s		
Dynamic heading accuracy	0.3 deg		
Sensitivity:			
Tracking and Navigation	-167 dBm		
Reacquisition	-160 dBm		
Cold start	-148 dBm		
Hot start	-157 dBm		



### OTHER FEATURES

Anti-jamming	Active CW detection and removal Dual band onboard pass filter
Anti-spoofing	Advanced anti-spoofing algorithms
Security	Secure boot Secure firmware update
Memory	Flash
RAW data support	Carrier phase, code phase and pseudo-range, Doppler on all signals
Operating temperature	0 °C to +50 °C
Supply voltage	4.5 V to 5.5 V
Supply current	<130 mA (without external antenna)
External antenna requirements	Supply voltage 3.0 V Consumption current <50 mA