

Features:

- Antenna input with SMA connector
- On board low noise 3.3 V voltage regulator
- USB A connector
- Time pulse LED, Power LED
- BY_Connect Evaluation Software
- Extensive visualization and evaluation features
- Backup supercapacitor
- Dimensions 85x30x15 mm
- Fully assembled and ready to use

Reference: ELT0652



GNSS FEATURES

Based on the new generation GNSS SoC - Alice, designed on the basis of ISO26262 ASIL B functional safety

17x22x2.75 mm LGA package

Full-temperature calibrated high-precision IMU and deeply coupled combined navigation engine

Supports on-chip RTK positioning calculation on all systems and multiple frequencies

Supports GPS L1C/A/L1C/L2P(Y)/L2C/L5, BDS B1I/B2I/B3I/B1C/B2a/B2b, GLONASS G1/G2/G3, Galileo E1/E5a/E5b/E6, QZSS L1C/A/L1C/L2C/L5, NavIC L5 and SBAS L1C/A

All-system multi-frequency RTK engine and advanced RTK technology

Independent tracking of different frequencies and 60dB narrowband anti-jamming technology

PERFORMANCE

Channels: 1507 channels, based on Alice

Frequency: GPS L1C/A/L1C*/L2/L5
BDS B1I/B2I/B3I/B1C*/B2a/B2b*
GLONASS G1/G2
Galileo E1/E5a/E5b/E6*
QZSS L1/L2/L5/L6(CLAS*)
NavIC L5
SBAS* L1C/A

Single point positioning (RMS): Horizontal: 1.5 m
Vertical: 2.5 m
Data Update Rate 50 Hz Positioning

RTK (RMS): Horizontal: 1 cm + 1 ppm
Initialization Reliability > 99.9%
Vertical: 1.5 cm + 1 ppm
Data Update Rate 2 Hz Positioning, 100Hz INS

Sensitivity: Acquisition: -146 dBm
Re-acquisition: -156dBm
Tracking: -156 dBm
L-band: -133 dBm
L-band BER: 10E-5

Accuracy: Carrier phase: <1mm (RMS)
Pseudorange: <0.1m (RMS)
Tracking: -156 dBm
Time Accuracy(RMS): <20 ns
Speed measurement: 0.03 m/s (RMS)
Dead reckoning accuracy, typical: 0.8%

OTHER FEATURES

Anti-jamming protection: Jamming to signal ratio: 65dBc
Multitone jamming: 6 or more pulses
Narrowband jamming: 10% of the signal bandwidth
Fast sweep jamming protection

Physical Characteristics: Packaging: 54 pin LGA
Dimension: 17.0 × 22.0 × 2.75 mm
Weight: 1.88 ± 0.03 g

Environmental Specifications: Working temperature: -40 °C ~ +105 °C
Storage temperature: -55 °C ~ +150 °C
Humidity: 95% No condensation
Vibration: MIL-STD-810F
Shock: MIL-STD-810F

Communication Interfaces: 3 × UART (LVTTTL)
2 × CANFD (shared with UART0, UART1)
1 × SPI (shared with UART2 and RMII)
1 × RMII 100Mbit (shared with UART2 and SPI)