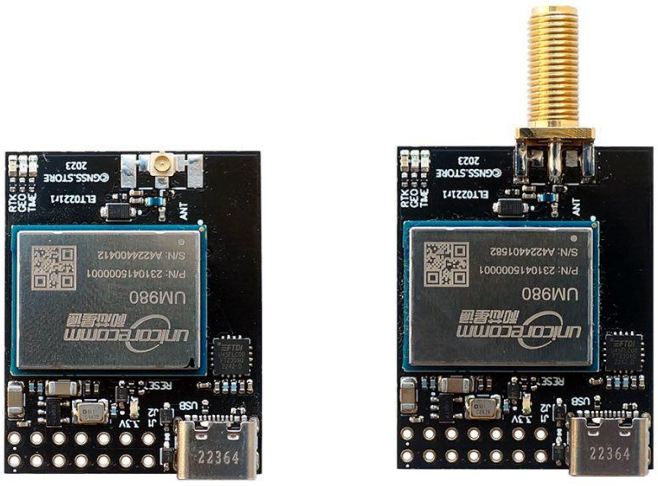
UM980

RTK InCase PIN GNSS receiver board with USB C

Features:

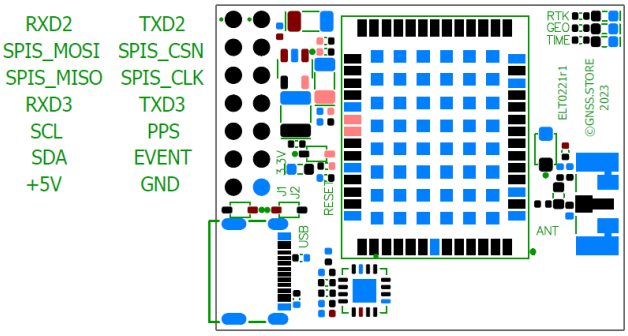
- Antenna input with IPEX or SMA connectors
- On board low noise 3.3V voltage regulator
- **USB**, **SPI, I2C** and two **UART** (Tx, Rx) interfaces
- **USB C connector**
- Time pulse LED, GEO LED, RTK LED, Power LED
- u-precise Unicore evaluation software
- Extensive visualization and evaluation features
- Time pulse LED, GEO LED, RTK LED, Power LED
- Backup supercapacitor
- Dimensions: 28x38 mm without SMA
- Weight 10 gram
- Fully assembled and ready to use

Reference: ELT0221



GNSS FEATURES	
Receiver type	1408-channel NebulasIV engine Beidou, Galileo, GLONASS, GPS/QZSS
GNSS platform	All-constellation Concurrent GNSS
GNSS bands	GPS L1C/A/L2P (Y)/L2C/L5 BDS B1I/B2I/B3I/B1C/B2a/B2b GLONASS G1/G2/G3 Galileo E1/E5a/E5b/E6 QZSS L1C/A/L!C/L2C/L5 NavIC L5 SBAS L1C/A

PERFORMANCE	
Horizontal pos. accuracy	
Single point (RMS)	1.5 m
DGPS (RMS)	0.4 m + 1 ppm
RTK (RMS)	0.008 m + 1 ppm
Vertical pos. accuracy	
Single point (RMS)	2.5 m
DGPS (RMS)	0.8 m + 1 ppm
RTK (RMS)	0.015 m + 1 ppm
Heading accuracy (RMS)	0.1°/1 m baseline
Velocity accuracy (RMS)	0.03 m/s
Time accuracy (RMS)	< 20 ns
Observation accuracy (RMS)	
Pseudorange (all systems)	10cm
Carrier Phase (all systems)	1 mm
RTK Initialization time	< 5 s (typ)
RTK initialization reliability	> 99.9%
Time to First Fix	Cold start < 30 s Warm start < 20 s
Data update rate	50 Hz Positioning



OTHER FEATURES		
Anti-jamming	60dB narrowband anti-jamming technology Active CW detection and removal Jamming status for each frequency	
Anti-spoofing	Advanced anti-spoofing algorithms	
RTK technology	Instantaneous RTK initialization	
Operating temperature	0 °C to +50 °C	
Supply voltage	4.5 V to 5.5 V	
Supply current	<150 mA typ (without external antenna)	
External antenna requirements	Supply voltage	<5.0 V
	Consumption current	<100 mA