M10-ATechnical Specification

GNSS Performance	
Positioning System	Full system, all frequency points
Satellite Frequency	BDS： B1I, B2I, B3I, B1C, B2a, B2b GPS： L1C/A, L1C, L2C, L2P(Y), L5 GLONASS： G1, G2, G3 Galileo： E1, E5a, E5b, E6 QZSS： L1C/A, L1C, L2C, L5 NavIC： L5 SBAS： L1C/A L-Band*
RTK accuracy	Plane: 0.8cm + 1ppm Elevation: 1.5cm + 1ppm
Time accuracy	20ns
Speed measurement accuracy	0.03m/s
Time taken for first positioning	Cold start: <12s
RTK initialization time	<5s (typical)
RTK Initialization Reliability	>99.9%
Data transmission performance	
Operating Frequency	410-470 MHz
Carrier Power	1.5W or 0.5W
Modulation Mode	GFSK/4FSK
Protocol Version	SOUTH、TRIMTALK、TRANSEOT、TRIMMARK3、 Transmission protocols such as SATEL
air speed	9600bps、19200bps
Operating Temperature	-40~+75°C
Physical Specifications	

Size	101X101X67
Weight	434g
Middle rod thread	5/8-11
Battery Capacity	6800mAh
External Interface	Type-C
Protection Class	IP67
Performance Specifications	
Endurance Time	18 hours
Memory Card	TF Card (optional 16-128GB)
Bluetooth	Bluetooth
WIFI	IEEE802.11b/g/n
Inertial Navigation Performance	
Accelerometer	Measurement Range: ±8g
	Bias Instability: 25μg
	Random Walk: 0.05m/s/√h
Gyroscope	Measurement Range: ±500°/s
	Bias Instability: 5.0°/h
	Random Walk: 0.3°/√h
Tilt Measurement Index	Pitch, Roll: ⩽0.1° (1σ)
	Heading: ⩽0.4° (1σ)
	Data output frequency: 100Hz
Tilt measurement accuracy	Accuracy: 1.0cm (within 30 degrees)
Initialization speed	1-2s
Working Environment	
Operating Temperature	-20°C~70°C
Storage Temperature	-20°C~70°C