iBASE SPECIFICATIONS

GNSS Performance [1]	
Channels	1408 channels
GPS	L1C, A, L2P (Y), L2C, L5
GLONASS	L1, L2
Galileo	E1, E5a, E5b, E6*
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
QZSS	L1, L2, L5, L6*
PPP	B2b-PPP
SBAS	L1, L5

GNSS Accuracies [2]	
Real time kinematics (RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS Initialization time: < 10 s Initialization reliability: > 99.9%
Post-processing kinematics (PPK)	Horizontal: 3 mm + 1 ppm RMS Vertical: 5 mm + 1 ppm RMS
Post-processing static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 5 mm + 0.5 ppm RMS
Code differential	Horizontal: 0.4 m RMS Vertical: 0.8 m RMS
Autonomous	Horizontal: 1 m RMS Vertical: 1.5 m RMS
Positioning rate	Up to 10 Hz
Time to first fix [3]	Cold start: < 45 s Hot start: < 30 s Signal re-acquisition: < 2 s

Hardware	
Size (L x W x H)	Φ160.5 mm x 103 mm (Φ 6.32 in × 4.06 in)
Weight	1.73 kg (3.81 lb)
Environment	Operating: -40°C to +65°C (-40°F to +149°F) Storage: -40°C to +85°C (-40°F to +185°F)
Humidity	100% condensation
Ingress protection	IP67 waterproof and dustproof, protected from temporary immersion to depth of 1 m
Shock	Survive a 2-meter pole drop
Tilt sensor	E-Bubble leveling
Front panel	2 LED 0.96" OLED Display

Certifications
NGS Antenna Calibration

Communication	
Network modem	Integrated 4G modem LTE (FDD): B1,B2,B3,B4,B5,B7,B8,B20 DC-HSPA+/HSPA+/HSPA/UMTS: B1, B2, B5, B8 EDGE/GPRS/GSM 850/900/1800/1900 MHz
Wi-Fi	802.11 b/g/n, access point mode
Bluetooth ®	v 4.1
Others	NFC
Ports	1 x 7-pin LEMO port (external power, RS-232) 1 x UHF antenna port (TNC female)
UHF radio [4]	Standard Internal Rx/Tx: 450 - 470 MHz Transmit Power: up to 5 W Protocol: CHC, Transparent, TT450, Link rate: 9,600 bps /19,200 bps Range: Typical 5 km to 8 km, up to 25 km with optimal conditions
Data formats	RTCM2.x, RTCM3.x, CMR input / output HCN, HRC, RINEX2.11, 3.02 NMEA 0183 output NTRIP Client, NTRIP Caster
Data storage	8 GB memory

Electrical	
Power consumption	12 W (depending on user settings)
Li-ion battery capacity	2 x 7000 mAh, 7.4 V
Operating time on internal battery [5]	UHF receive / transmit (5 W): 8 h to 12 h Static: up to 15 h
External power input	9 V DC to 28 V DC

*All specifications are subject to change without notice.
(1) Compliant, but subject to availability of BDS ICD and Galileo commercial service definition. Galileo E6 and QZSS L6 will be provided through future firmware upgrade. (2) Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (3) Typical observed values. (4) The use of UHF datalink may be subject to local regulations. Users must ensure that the device is not operated without the permission of the local authorities on frequencies or power output other than those specifically reserved and intended for use without required permit. (5) Battery life is subject to operating temperature.