

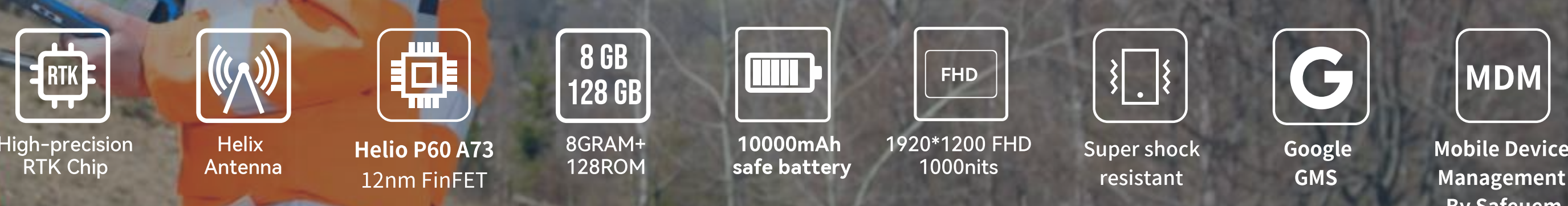
# HUGEROCK G71 Version:2023

## RUGGED GNSS RTK TABLET PC

7 Inch High Precision GNSS /RTK /GIS Mobile Handheld

The whole series of HUGEROCK G71 use 8-core 2.0G Hz A73 processor, 7 inch 1200\*1920 FHD 1000nit ultra-bright and high saturation display, 10000mAh built-in large-capacity battery, IP67/MIL810G/IK05 high standard industrial protection level, built-in multiple communication methods and 8+128G large-capacity storage Unit, convenient for fast transmission and storage of various data. G71 is equipped with multi-model high-precision GNSS/RTK positioning boards, support BDS, GPS, GALILEO, GLONASS, NAVIC\*, QZSS\* systems and SBAS\*, IMU\* combined navigation and positioning. The high number of visible satellites enables the receiver to select the best signals. This maximizes the position accuracy, in particular under challenging conditions such as in deep urban canyons. Instantaneous RTK initialization\*, support long-baseline RTK solution\*, differential data RTCM format adaptive recognition\*, can achieve milli-level \*solution accuracy, support multi-path suppression technology, widely used in high-precision surveying and mapping, GIS information Acquisition, intelligent driving and drone control systems.

(with \* for specific model support)



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tools for GIS

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## APPEARANCE



- 1. MIC
- 2. Camera Button
- 3. SOS Button
- 4. Handset Jack (Sealed Cover)
- 5. Light sensor
- 6. Sub Camera
- 7. Type-C (Sealed Cover)
- 8. Power Button
- 9. Reset Button
- 10. Volume Up
- 11. Volume Down
- 12. TF-card (Sealed Cover)
- 13. SIM-card (Sealed Cover)
- 14. Antenna
- 15. Main Camera
- 16. Speaker



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## SPECIFICATION

Model: G71

<b>Hardware</b> CPU ARM Cortex A73 Octa-core(2.0GHz) GPU ARM Mali-G72 MP3 RAM 8G Internal Memory 128G External Memory Micro SD card(T-FLASH card), max 256GB Main Camera 13.0MP(AF)with flash led Sub Camera 5.0MP Battery 10000mAh Display 7 inch IPS/AFFS 1200*1920 FHD industrial 1000nit Sunlight Readable Touch Panel Capacitive/frosted tempered film supports glove touch/spray/active capacitive pen	<b>Communications &amp; Networking</b> Phone Call GSM /WCDMA/CDMA 1X/VoLTE 2G GSM/CDMA 1X/EDGE/GPRS/WAP 2G Band GSM(B2/3/5/8) 3G WCDMA 3.75G (HSDPA+42.2Mbps, HSUPA+11.5Mbps), EVDO 3G Band WCDMA(B1/2/5/8), Evdo: BCO/BC1 CDMA: BCO/BC1 4G FDD: 150Mbps down, 50Mbps UP TDD: 150Mbps downlink, 50Mbps uplink 4G Band TD-LTE(B38/39/40/41); FDD LTE(B1/2/3/4/5/7/8/12/17/20/28) WI-FI Dual-band WIFI (2.4GHz/5GHz) single stream 802.11 a/b/g/n/ac Bluetooth 5.0 Low Energy (LE)
<b>IO/Sensor/Navigation</b> SIM Card 1.8/3.3V SIM card TF Card Micro SD card (T-FLASH card); max 256GB Headphone 3.5mm (CTIA) Charging interface Type-C*1 Data interface USB Type-C(OTG)*1 Direction Sensor support Gravity sensor support Magnetic Field Sensor support Motion sensor support Rotation Vector support Light-sensor support Acceleration sensor support Charger 5.0V 2A-10W Navigation GPS+Beidou+Glonass+AGPS+SBAS(EPO 2.5m)	<b>Industrial &amp; Reliability Design</b> Shake-proof 1-19Hz/1.0mm; 19-200Hz/1.0g Dropproof /IK MIL-STD-810G/Method 516.6/Procedure IV & Touch Panel IK05 Waterproof Class 7 (IEC 60529) Dustproof Class 6 (IEC 60529) Reliability MTBF=5000h; MTTR<0.5h Operating temperature -20°C to 55°C Storage Temperature -40°C to 80°C RH 5% to 95% Operating Altitude Max: 4,500 m(15,000 feet)
<b>Appearance</b> Size 202*138*22mm(L*W*H) Weight 700g Color & Material Blue(PC+ABS)+black(TPU)	<b>Certification/OS/Software</b> Certification MA/3C /FCC/CE/ROHS/ATEX/IP67(IEC 60529) Language English, Spanish, Portuguese (Brazil), Portuguese (Portugal), Italian, German, Dutch, French, Polish, Romanian, Turkish, Russian, Arabic, Indonesian, Malay, Thai, Vietnamese, Hindi, Hebrew, Simplified, Chinese, Chinese Traditional, etc OS Android 11 <b>Package/Warranty terms</b> Warranty 24 months Package USB cable / Charger 5V 2A / Introduction manual / Screen protector / Aircraft box / Toolkit / SIM Card Ejector x 1

\*\*According to the actual model, GNSS receivers receive different types of signals. Please check the performance list of GNSS receivers of the model.



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## DIFFERENCES BETWEEN PRODUCT TYPES



**TOOL KIT** The packing list is different according to the specific model configuration, the actual one shall prevail.



Model: **G71N**  
Multi-satellite single frequency meter-level RTD

<b>EXTERNAL HELIX ANTENNA ITEMS</b> Antenna Multi-satellite single frequency Antenna Frequency BDS B1; GPS L1; GLONASS G1; GALILEO E1 Band BDS B1; GPS L1; GLONASS G1; GALILEO E1 Antenna Size φ18.5mm*50mm Installation Method SMA Horizontal Coverage 360° Impedance Matching 50 Ω Polarization Mode Right-handed circular polarization (RHCP) Spindle Ratio ≤3dB Gain 30±2dB Maximum Gain ≥1.5 dBi Noise Factor ≤1.5 dB	<b>FEATURES OF THE POSITIONING RECEIVER</b> Module High-precision multi-mode GNSS positioning module(meter-level RTD) Signal BDS: B1I; GPS: L1 C/A; GLONASS: L1 OF; Galileo: E1B/C; QZSS: L1 C/A/S; (tracking Frequency) SBAS L1 C/A; WAAS, EGNOS, MSAS, GAGAN Channel 92-channel Single-point 1.5 m CEP (with SBAS); 2.0 m CEP (without SBAS) Positioning Accuracy RTD Accuracy 1.5 m CEP (with RTD) Nav. Update Rate 1-25 Hz Cold Start 24 s Hot Start 2 s Aided Start 2 s Cors Data RTCM 3.3 Data Format NMEA 4.10, UBX binary, RTCM 3.3 Inertial Navigation none
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## DIFFERENCES BETWEEN PRODUCT TYPES



Model: **G71F**  
Multi-satellite dual frequency centimeter level RTK

<b>EXTERNAL HELIX ANTENNA ITEMS</b> Antenna Multi-satellite dual frequency Antenna Frequency Band BDS B1/B2/B3; GPS L1/L2; GLONASS G1/G2; GALILEO E1/E5b Antenna Size φ27.5mm*55.5mm Installation Method SMA Horizontal Coverage 360° Impedance Matching 50 Ω Polarization Mode Right-handed circular polarization (RHCP) Spindle Ratio ≤3dB Gain 30±2dB Maximum Gain 2.5dBi Noise Factor ≤1.5 dB	<b>FEATURES OF THE POSITIONING RECEIVER</b> Module High-precision multi-mode dual-frequency module (centimeter level RTK) Signal BDS: B1I/B2I; GPS: L1C/A L2C; GLONASS: L1OF L2OF; Galileo: E1B/C E5b; QZSS: L1C/A L1S L2C; SBAS: L1C/A Channel 184-channel Single-point Positioning Accuracy 0.8m CEP Rtk Accuracy ± 10mm + 1 ppm CEP Nav. Update Rate 1-20 Hz Cold Start 24 s Hot Start 2 s Aided Start 2 s Cors Data RTCM v. 3.3, SPARTN v. 2.0 Data Format NMEA, UBX binary, RTCM v. 3.3, SPARTN v. 2.0 Inertial Navigation none
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Model: **G71M**  
Multi-satellite multi-frequency omnidirectional mm-level RTK

<b>EXTERNAL HELIX ANTENNA ITEMS</b> Antenna Multi-satellite multi-frequency omnidirectional Antenna Frequency Band BDS B1/B2/B3; GPS L1/L2; GLONASS G1/G2; GALILEO E1/E5b Antenna Size φ27.5*107.5mm Installation Method SMA 90 degree omnidirectional Horizontal Coverage 0°-360° Impedance Matching 50 Ω Polarization Mode Right-handed circular polarization (RHCP) Spindle Ratio ≤3dB Gain 30±2dB Maximum Gain 2.5dBi Noise Factor ≤1.5 dB	<b>FEATURES OF THE POSITIONING RECEIVER</b> Module High-precision multi-mode full-band module (mm-level RTK) Signal BDS: B1I/B2I/B3I/B1C/B2a/B2b* GPS L1C/A/L1C/L2P (Y)/L2C/L5 GLONASS G1/G2/G3* Galileo E1/E5a/E5b/E6* QZSS L1/L2/L5 Channel 1408 channels, based on NebulasIV Single-point Positioning Accuracy P1.5m E: 2.5m CEP (with SBAS) Rtk Accuracy P:0.8m + 1 ppm CEP E:1.5cm + 1 ppm CEP Nav. Update Rate 20 Hz Cold Start <-30s Hot Start < 20s Aided Start < 1s Cors Data RTCM V3.3 Data Format NMEA-0183, Unicore Inertial Navigation none
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## GNSS Measurement Antenna (Optional)

Multi-frequency RTK Antenna HG-BA600	Multi-frequency RTK Antenna HG-BA800
<b>Passive antenna characteristics passive</b> Support satellite signal BDS: B1, B2, B3 GPS L1, L2; GLONASS: G1, G2; Galileo: E1, E5b Operating frequency band 1197MHz-1278MHz; 1559MHz-1605MHz Impedance matching 50 Ω Polarization mode Right-handed circular polarization (RHCP) Spindle ratio ≤3dB Horizontal coverage 360° Maximum gain ≥5.5dBi	<b>Passive antenna characteristics</b> Support satellite signal BDS: B1, B2, B3; GPS: L1, L2, L5 GLONASS G1, G2; GALILEO: E1, E2, E5a, E5b, E6, L-Band Operating frequency band 1164MHz-1300MHz; 1520MHz-1615MHz Impedance matching 50 Ω Polarization mode Right-handed circular polarization (RHCP) Spindle ratio ≤3dB Horizontal coverage 360° Maximum gain ≥5.5dBi
<b>Low noise amplifier characteristics</b> Low noise amplifier gain 40±2dB Noise factor ≤2.0dB Output standing Wave Ratio <2.0 Intra-band flatness ±2dB Operating voltage 3.0-16V DC Operating current ≤45mA	<b>Low noise amplifier characteristics</b> Low noise amplifier gain 40±2dB Noise factor ≤2.0dB Output standing Wave Ratio <2.0 Intra-band flatness ±2dB Operating voltage 3.0-16V DC Operating current ≤35mA
<b>Adaptability of machine &amp; structure &amp; environment</b> Joint type TNS negative head Antenna size φ132mm*45mm Operating temperature -40°C~+80°C Storage temperature -45°C~+85°C Storage humidity 95% no condensation Color white Installation method TNS screw installation Weight ≤320g Phase center error ±2mm Dual frequency delay difference ≤5ns	<b>Adaptability of machine &amp; structure &amp; environment</b> Joint type TNS negative head Antenna size φ132mm*55.14mm Operating temperature -40°C~+80°C Storage temperature -45°C~+85°C Storage humidity 95% no condensation Color white Installation method TNS screw installation Weight ≤350g Phase center error ±2mm Dual frequency delay difference ≤5ns



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