

# HUGEROCK S50EX Version: 2021

RUGGED ATEX PDA  
4.5 Inch ATEX Resilient Mobile Handheld, T9 Keyboard

Ex-Marking: II 2G Ex ib IIB T4 Gb Certificate NO. ECM 22 ATEX-B DU54

The HUGEROCK S50EX Ruggedized Explosion-Proof Handheld is ideal for personnel working in explosive gas environments such as petroleum, petrochemical, mining, military, and public safety departments. Compliant with MIL-STD-810G and IP65 standards, it is durable enough to effectively protect equipment from dust, water, motion, vibration, temperature, and other factors that can quickly damage equipment. It can withstand a drop of up to 2 meters and a shock pressure test of 2 tons. The S50EX can also easily integrate professional functions, including UHF RFID, 1D/2D barcode, high-precision GNSS, etc. It also features a long-life 5000mAh intrinsically safe battery, the screen is readable in sunlight, and operates in extremely low temperatures.



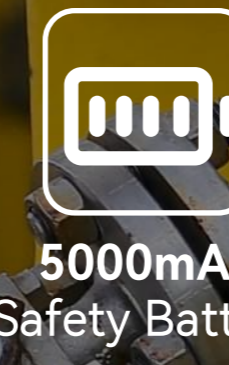
**ATEX**  
Explosion Proof



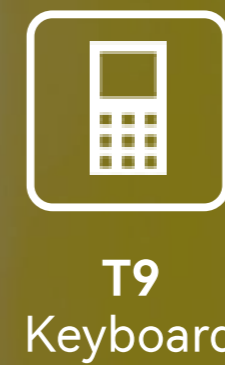
**8GRAM+**  
128ROM



**Helio P60 A73**  
12nm FinFET



**5000mAh**  
Safety Battery



**T9**  
Keyboard



**MIL-810G**  
Drop-proof 6ft



**Google**  
GMS



**MDM**  
Mobile Device Management by Safeuem



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## APPEARANCE



- 1. Power button
- 2. Scan button
- 3. MIC
- 4. Barcode scanner (optional)
- 5. Earphone (Sealed Cover)
- 6. Light sensation
- 7. Handset
- 8. Charge lamp
- 9. Home
- 10. Arrow and confirm Button
- 11. Menu Button
- 12. Back Button
- 13. Number Button
- 14. Power ON/OFF
- 15. \* Button
- 16. # Button
- 17. 2pin pogo pin
- 18. Type-C (Sealed Cover)
- 19. Volume up
- 20. Volume Down
- 21. Main camera (optional)
- 22. Function box (optional)
- 23. Nameplate
- 24. Speaker
- 25. Battery

Order No : 5021Y      Order No : 5021G      Order No : 5021R



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## SPECIFICATION

Model:S50EX(2021)

Hardware	Communications & Networking
CPU: ARM A73 2.0GHz Octa-core	Phone Call: GSM /WCDMA/CDMA 1X/VoLTE
GPU: ARM Mali-G72 MP3	2G: GSM/CDMA 1X/EDGE/GPRS/WAP
RAM: 8GB	2G Band: GSM (B2/3/5/8)
Internal Memory: 128GB	3G: WCDMA 3.75G (HSDPA + 42.2Mbps, HSUPA +11.5Mbps), EVDO
External Memory: Micro SD card(T-FLASH card), max 256GB	3G Band: WCDMA(B1/2/5/8), Evdo: BC0/BC1 CDMA: BC0/BC1
Main Camera: 13.0MP(AF) with flash led	4G: FDD: 150Mbps down, 50Mbps UP TDD : 150Mbps downlink, 50Mbps uplink
Sub Camera: N/A	4G Band: TD-LTE(B38/39/40/41); FDD LTE (B1/2/3/4/5/7/8/12/17/20/28)
Battery: 5000mAh (Replaceable battery)	Wi-Fi: Dual-band WIFI (2.4GHz/5GHz) single stream 802.11 a/b/g/n/ac
Display: 4.5 inch IPS/AFFS 540*960 QHD Industrial 500nit Sunlight Readable	Bluetooth: 4.2 Low Energy (LE)
Touch Panel: Capacitive/frosted tempered film supports glove touch/spray/active capacitive pen	Industrial & Reliability Design
IO/Sensor/Navigation	Shake-proof: 1-19Hz/1.0mm; 19-200Hz/1.0g
SIM Card: 1.8/3.3V SIM card	Drop-proof /IK: MIL-STD-810G/Method516.6/Procedure IV & Touch Panel IK05
TF Card: Micro SD card (T-FLASH card); max 256GB	Waterproof: Class 5 ( IEC 60529 )
Headphone: 3.5mm (CTIA)	Dustproof: Class 6 ( IEC 60529 )
Charging interface: Type-C & 2pin pogo pin	Operating temperature: -20°C to 55°C
Data interface: USB Type-C (OTG)*1	Storage Temperature: -40°C to 80°C
Gravity sensor: support	Reliability: MTBF>5000h; MTTR<0.5h
Motion sensor: support	RH: 5% to 95%
Direction Sensor: support	Operating Altitude: Max: 4,500m (15,000 feet)
Magnetic Field Sensor: support	Certification/OS/Software
Gyro sensor: support	Certification: ATEX/3C/FCC/CE/ROHS/IP65 (IEC 60529)
Rotation Vector: support	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.
Light-sensor: support	OS: Android 10.0 / 11.0
Acceleration sensor: support	Ex-Marking: II 2G Ex ib IIB T4 Gb
Charger: 5.0V 2A-10W	Certificate NO.: ECM 22 ATEX-B DU54
Navigation: GPS+Beidou+Glonass+AGPS+SBAS (EPO 2.5m)	Package/Warranty terms/OEM
Appearance	Warranty: 24 months
Size: 197*92*26.5mm (L*W*H)	OEM/ODM: Support
Weight: 420g	Package: USB cable/Charger 5V 2A/Introduction manual/Screen protector/Packing box (Can be customized logo)/Aircraft box/Toolkit (optional)
Color & Material: Black&yellow Black&green Black&Gray	



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## OPTIONAL MODULES & ACCESSORIES

**Barcode reader**  
Optional 2D module

**2D Barcode Module N1**  
1D2D PDF417, QR Code, Micro QR, Data Matrix  
1D Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, AIM128, Plessey, MSI-Plessey 640\*480 CMOS  
EAN13 (13mil) 65-350mm, PDF417 (6.7mil) 50-125mm, Code39 (5mil) 40-150mm, Data Matrix (10mil) 45-120mm, QR Code (15mil) 30-170mm

012345678901234567890



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**RFID Reader**  
Optional LF HF UHF

**125K LF RFID Module**  
support : ID card (8H-10D) EM4100, 4001, TK4100, EM4305  
Read distance: 2-5cm  
(optional HID card support)

**13.56M HF RFID or NFC Module**  
13.56M HF support ISO14443A/B/ISO15693 readable/data transmission/Card Emulation/encryption authenticated  
Read distance: 2-5cm

**134K LF RFID Module**  
Operation Frequency: 134.2kHzsupport agreement: ISO11784/5Read distance >5cm  
Working mode: FDX-B (full-duplex communication)

**UHF RFID Module/Antenna**  
Air interface protocol: EPCglobal UHF Class 1 Gen 2 / ISO 18000-6COperating spectrum range: 902MHz ~ 928MHz285MHz ~ 868MHz(Optional)  
Output range : 0-26 dBm  
Output accuracy : +/- 1dB  
Output power level : +/- 0.2dB  
Read distance : 1.5-2m (2db antenna test card E41)

\*\*The RFID module only supports one of the optional



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## OPTIONAL MODULES & ACCESSORIES

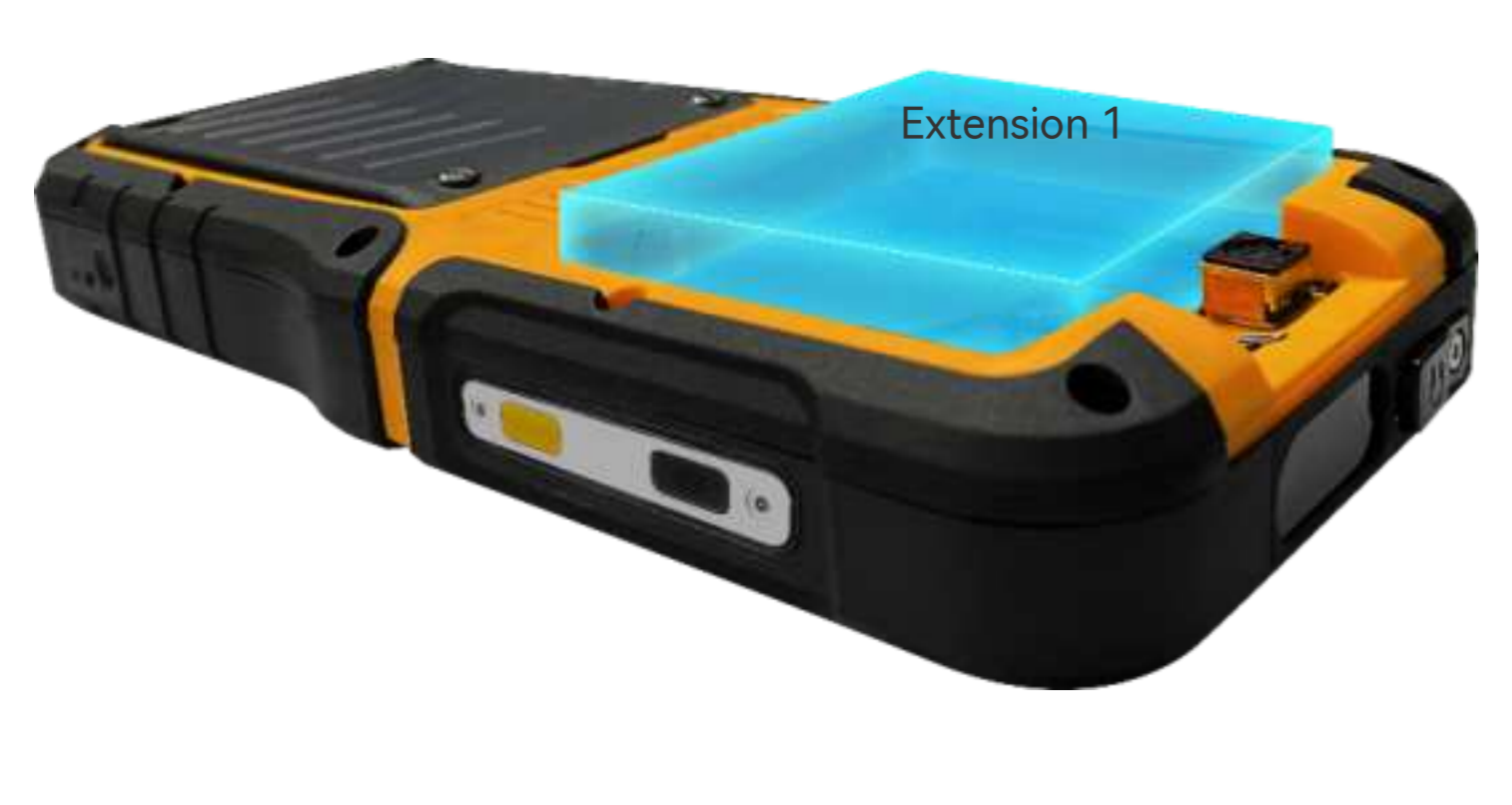
115\*83\*88 (L\*W\*H)

Optional base



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## OPTIONAL MODULES



<b>UHF module</b>	(M500 ASTM) + Antenna (M500 EN) + Antenna
<b>LF RFID module</b>	125K LF ID card (8H-10D) 125K LF HID card (10D) 125K LF HID card module 134K LF animal tag module
<b>HF RFID module</b>	13.56M HF module (single protocol) 13.56M HF module (multi-protocol)
<b>Extension 1</b>	
<b>RS232 module</b>	
<b>NFC module</b>	
<b>Other customer supply modules</b>	Need to meet the interface conditions: Powered by 3.3V-1.5A/5V-1.5A, UART Interface, interface level3.3V/5V, GPIO 1/electrical level 3.3V/5V.



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