



Mobile Computer

Fingerprint



This is an Android rugged mobile computer. It is improved to enable capacitive fingerprint sensor TCS1/TCS2 and optical sensor CBM-E3. The device is revolutionized to be FIPS 201 compliant, and enable secure data encryption and fake finger detection. The device with biometric functions can best satisfy your needs of identity verification. It is ideal for population census and national election.



Specification

Performance	
CPU	Octa-core 2.3 GHz
RAM+ROM	3 GB + 32 GB / 4 GB + 64 GB (optional)
Expansion	Supports up to 256GB Micro SD (TF) card
Operating System	Android 11; GMS, FOTA, Soti MobiControl, SafeUEM supported. Committed support for a future upgrade to Android 12, 13, and Android 14 pending feasibility

Communication	
WLAN	IEEE802.11 a/b/g/n/ac, 2.4G/5G dual-band, internal antenna
WWAN	2G: GSM850/GSM900/DCS1800/PCS1900
	3G: WCDMA: B1/B2/B4/B5/B8 CDMA2000 EVDO: BC0 TD-SCDMA: A/F
	4G: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28A/B28B/ B34/B38/B39/B40/B41
Bluetooth	Bluetooth 5.0
GNSS	GPS/AGPS, GLONASS, BeiDou; internal antenna

Physical Characteristics	
Dimensions	164.2 x 78.8 x 17.5 mm / 6.46 x 3.1 x 0.69 in.; (Capacitive the thickest: 24.5 mm / 0.96 in.); (Optical the thickest: 31.5 mm / 1.24 in.)
Weight	< 314 g / 11.08 oz.
Display	5.2" IPS LTPS 1920 x 1080
Touch Panel	Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported
Power	Main battery: Li-ion, rechargeable, 5000 mAh
	Standby: over 350 hours
	Continuous use: over 12 hours (depending on user environment)
	Charging time: 3-4 hours (with standard adaptor and USB cable)
Expansion Slot	1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
Interfaces	USB 2.0 Type-C, OTG, TypeC headphones supported
Sensors	Light sensor, proximity sensor, gravity sensor
Notification	Sound, LED indicator, vibrator
Audio	2 microphones, 1 for noise cancellation; 1 speaker; receiver
Keypad	4 front keys, 1 power key, 2 scan keys, 1 multifunctional key

Developing Environment	
SDK	Software Development Kit
Language	Java
Tool	Eclipse / Android Studio

User Environment	
Operating Temp.	-4 °F to 122 °F / -20 °C to 50 °C
Storage Temp.	-40 °F to 158 °F / -40 °C to 70 °C
Humidity	5% RH - 95% RH non condensing
Drop Specification	Multiple 1.8 m / 5.9 ft. drops (at least 20 times) to the concrete across the operating temperature range
Tumble Specification	1000 x 0.5 m / 1.64 ft. falls at room temperature
Sealing	IP65 / IP67 per IEC sealing specifications
ESD	±15 KV air discharge, ±6 KV conductive discharge

Data Collection	
Fingerprint	
Option 1	
Sensor	TCS1
Sensing Area (mm)	12.8 × 18.0
Resolution (dpi)	508 dpi, 8-bit greylevel
Certifications	FIPS 201, STQC
Format Extraction	ISO 19794, WSQ, ANSI 378, JPEG2000
Fake Finger Detection	Support by SDK
Security	AES, DES key encryption of the host communication channel

Option 2	
Sensor	TLK1NC02
Sensing Area (mm)	14.0 X 22.0
Resolution (dpi)	508dpi, 256 greylevel
Certifications	FIPS 201, FBI
Format Extraction	ISO19794, WSQ, ANSI 378, JPEG2000
Fake Finger Detection	Support by SDK
Security	AES, DES key encryption of the host communication channel

Option 3	
Sensor	Optical Morpho CBM-E3
Sensing Area (mm)	14 x 22
Resolution (dpi)	500 dpi, 256 greylevel
Certifications	FIPS PIV IQS / ISO 19794-4, MINEX & FIPS 201 compliant, STQC
Format Extraction	ISO 19794-2/4, WSQ, ANSI 378, etc.
Fake Finger Detection	Latex, GeLatin, Plasticine, Kapton, Transparent Film, Silicone, Rubber, Play-doh, Graphite Or Paper
Security	FIPS 140-2 level 2, multiple security methods available, including image and templates encryption, template signature, secure tunneling, etc.

Camera	
Rear Camera	13 MP Autofocus with flash
Front Camera (optional)	5 MP camera

NFC	
Frequency	13.56 MHz
Protocol	ISO14443A/B, ISO15693, NFC-IP1, NFC-IP2, etc.
Chips	M1 card (S50, S70), CPU card, NFC tags, etc.
Range	2-4 cm

Barcode Scanning (optional)	
1D Linear Scanner	Zebra: SE965; Honeywell: N4313
1D Symbolologies	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
2D Imager Scanner	Zebra: SE4710 / SE4750 / SE4750MR; Honeywell: N6603; CM60
2D Symbolologies	PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode; Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX), etc.

Accessories	
Standard	AC Adaptor, USB Cable, Lanyard, etc.
Optional	Cradle, Holster, etc.

* For detailed specification, please check Accessory Guide.