



Fingerprint



Mobile Computer

Fingerprint



Android



4G



WiFi



Bluetooth



Fingerprint



1D Barcode



2D Barcode



IRIS



NFC



Camera



GPS

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



Specification

Performance	
Quad-core	
CPU	Cortex-A53 Quad-core 1.45GHz
RAM+ROM	2GB+16GB
Expansion	Supports up to 128 GB Micro SD card
Operating System	Android 6.0
Octa-core	
CPU	Cortex-A53 Octa-core 2.5GHz
RAM+ROM	3GB+32GB
Expansion	Supports up to 128 GB Micro SD card
Operating System	Android 8.1
Communication	
Quad-core	
WLAN	IEEE802.11 a/b/g/n, 2.4G/5G dual-band, internal antenna
WWAN (China)	2G: 900/1800MHz
	3G: 900/1900/2000/2100MHz
WWAN(Europe)	4G: B1, B3, B5, B38, B39, B40, B41
	2G: 850/900/1800/1900MHz
WWAN(America)	3G: 850/900/1900/2100MHz
	4G: B1, B3, B5, B7, B8, B20, B40
WWAN(Asia)	2G: 850/900/1800/1900MHz
	3G: 850/900/1700/1900MHz
WWAN (Others)	Depending on the country's ISP
Bluetooth	Bluetooth 4.0, BLE
GNSS	GPS/AGPS, GLONASS, BeiDou, internal antenna
Octa-core	
WLAN	IEEE802.11 a/b/g/n/ac, 2.4G/5G dual-band, internal antenna
WWAN (China)	2G: 900/1800MHz
	3G: WCDMA: B1,B8
	CDMA2000 EVDO: BC0
	TD-SCDMA: B34,B39
WWAN (Europe)	4G: B1,B3,B5,B8,B34,B38,B39,B40,B41
	2G: 850/900/1800/1900MHz
WWAN (America)	3G: B1,B2,B4,B5,B8
	4G: B1,B3,B5,B7,B8,B20,B40
WWAN(Asia)	2G: 850/900/1800/1900MHz
	3G: B1,B2,B4,B5,B8
WWAN (Others)	4G: B2,B4,B7,B12,B17,B25,B66
	Depending on the country's ISP
Bluetooth	Bluetooth v2.1+EDR,3.0+HS,v4.1+HS
GNSS	GPS/AGPS, GLONASS, BeiDou; internal antenna
Physical Characteristics	
Dimensions	164.2*78.8*17.5mm/6.46*3.10*0.69in; (Capacitive the thickest: 24.5mm/0.96in); (Optical the thickest: 31.5mm/1.24in)
Weight	<314g/11.08oz
Display	5.2" IPS FHD 1920x1080
Touch Panel	Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported
Power	Main battery: Li-ion, rechargeable, 5000mAh
	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 SIM card, 1 slot for SIM or TF card
Interfaces	USB 2.0 Type-C, OTG, Octa-core version supports TypeC headphones
Audio	Speaker, 2 microphones
Keypad	4 front keys, 1 power key, 2 scan keys, 1 multifunctional key
Sensors	Gravity sensor, light sensor, proximity sensor, vibration motor
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 1.8m/5.9ft drops (at least 20 times) to the concrete across the operating temperature range
Tumble Specification	1000 x 0.5m/1.6ft falls at room temperature
Sealing	IP65 per IEC sealing specifications
ESD	±15KV air discharge, ±6KV conductive discharge
Data Collection	
Fingerprint	
Option 1	
Sensor	TCS1/TCS2 Capacitive
Sensing Area (mm)	12.8×18; 10.4×14.4
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	Optical Morpho CBM-E3
Sensing Area (mm)	14x22
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	13MP Autofocus with flash
Front Camera (optional)	5MP camera
NFC	
Frequency	13.56MHz
Protocol	ISO14443A/B, ISO15693, NFC-IP1, NFC-IP2, etc.
Chips	M1 card (S50, S70), CPU card, NFC tags, etc.
Range	2-4cm
Barcode Scanning (optional)	
1D Linear Scanner (Quad-core)	Zebra SE965 / Honeywell N4313
1D Symbologies	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 (Quad-core)	Zebra: SE4710 / SE4750 / SE4750MR; Honeywell: N6603
2D Imager Scanner (Octa-core)	Zebra: SE2707
2D Symbologies	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.
Iris (optional)	
Rate	<150ms
Range	20-40cm
FAR	1/10000000
Protocol	ISO/IEC 19794-6, GB/T 20979-2007
*Iris is alternative to front camera.	
Accessories	
Standard	AC Adaptor, USB Cable, Lanyard, etc.
Optional	Cradle, Holster, etc.
* For detailed specification, please check Accessory Guide.	