Android 12

5G

Barcode

QR code
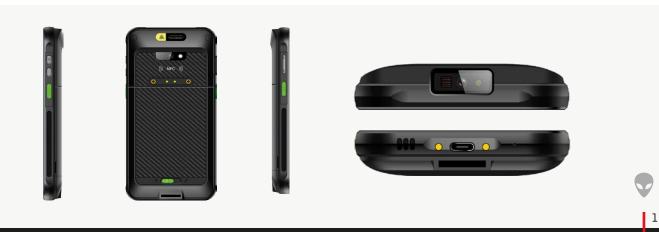
WiFi

Camera

GPS

Bluetooth

NFC

QUALICA-RD 50

Ruggedized Industrial Terminal with Android 12 and 5G.

Qualica-RD 50 is our newly launched **high-performance 5G mobile computer,** compatible with N1/N3/N8/N28/N41/N78/N7 frequencies. The high-end configuration includes advanced Android12, Qualcomm Snapdragon™ 480 Octa-core, 2.0GHz processor, 4GB RAM and 64GB ROM and optional ultra-large memory. It integrates barcode scanner, NFC, dual camera, dual microphone and multiple wireless data connections, as well as 6-inch HD display, 5000 mAh swappable battery and IP67 sealing. It can bring a new level of cost-effectiveness to a wide range of industries, such as retail, logistics and warehousing.

Qualica-RD 50 - Industrial Ruggedized Terminal

Technical specifications

Physical Characteristics

Dimensions	161.0 x 77.8 x 15.5mm / 6.34 x 3.06 x 0.61 in.
Weight	280g-288g / 9.88oz-10.16oz. (device with battery)
Keypad	Power key, 2 scan keys, volume (+/-) keys, 1 multifunctional key
Battery	5000mAh removable main battery, support QC3.0 and RTC
Display	6-inch high definition display (18:9), 1440 x 720
Touch Panel	Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported
Sensor	G_sensor, proximity sensor, light sensor, geomagnetic sensor, gyroscope
Notification	Sound, LED indicator, vibrator
Audio	2 microphones, 1 for noise cancellation; 1 speaker; 1 receiver
Card slot	1 for SIM card, 1 for SIM or TF card
Interfaces	USB Type-C, USB 3.1, OTG

Performance

CPU	Octa-core, 2.0GHz
RAM+ROM	4GB + 64GB / 6GB + 128GB
Expansion	Supports up to 256GB TF card

Developing Environment

Operating System	Android 12; GMS&AER; Committed support for a future upgrade to Android 14 pending feasibility
SDK	Qualica-RD Software
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 1.5m / 4.92ft. drops (at least 20 times) to the concrete across the operating temperature range
	MIL-STD-810H (SGS Test): Multiple 1.5m drops (at least 20 times) to theplate across the operatingtemperature range
Tumble Specification	1000 x 0.5m / 1.64ft. falls at room temperature
Sealing	IP67 per IEC sealing specifications
ESD	±15 KV air discharge, ±8 KV conductive discharge

Communication

Vo-LTE	Support Vo-LTE HD video voice call
Bluetooth	Bluetooth 5.1
GNSS	GPS/AGPS, GLONASS, BeiDou, Galileo, internal antenna
WLAN	Support 802.11 a/b/g/n/ac/ax-ready, 2.4G/5G dual-band, IPV4, IPV6, 5G PA;
	Fast roaming: PMKID caching, 802.11r, OKC
	Operating Channels: 2.4G (channel 1~13), 5G (channel 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165), Depends on local regulations
	Security and Encryption: WEP, WPA/WPA2-PSK(TKIP and AES), WAPI-PSK—EAP-TTLS, EAP-TLS, PEAP-MSCHAPv2, PEAP-LTS,PEAP-GTC, WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3-Personal, etc.
WWAN	2G: 850/900/1800/1900 MHz
	3G: 850/900/1900/2100MHz
	4G: B1/B2/B3/B5/B7/B8/B20/B28A/B28B/B34/B38/B39/B40/B41
	5G: N1/N3/N8/N28/N41/N78/N79

Data Collection

Camera

Rear Camera	16MP Autofocus with flash
Front Camera	5MP

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)

2D Scanner	Zebra: SE4710; CM60;
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 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.

Optional Accessories

USB Cable, Adapter, Charging Cradle, Rugged Rubber Boot, etc.

*See details in accessory guide