



# HC60 Handheld Computer



Android



4G



WiFi



Bluetooth



1D Barcode



2D Barcode



NFC



UHF



Camera



GPS

This is our newly-developed rugged handheld computer which exhibits extremely powerful performance. Built with Android 10/11.0 OS and Qualcomm high-performance processor, it features a removable large capacity battery and vigorous system configuration. It has rich functionality features for barcode scanning, RFID, NFC, front and rear cameras, etc. The device can be implemented in a wide spectrum of industries, including logistics, warehousing, retail, asset tracking, etc., assisting customers to improve operation and management levels significantly.



# Specification

## Physical Characteristics

<b>Dimensions</b>	159.5 x 65.7 x 16.8 mm / 6.28 x 2.58 x 0.66 in.
<b>Weight</b>	219 g / 7.72 oz. (device with battery)
<b>Keypad</b>	5 side keys : power, 2 scan keys, volume +/- Main keyboard: 22 keys (numeric keys, direction key, screen-lock key, Enter, Del, F1-F10, etc.)
<b>Battery</b>	4350 mAh removable main battery, 2600 mAh pistol battery (UHF version optional) Standby: up to 490 hours (only main battery ; WiFi: up to 470h; 4G: up to 440h) Continuous use: over 12 hours (depending on user environment) Charging time: 2.5 hours (charge device by standard adaptor and USB cable)
<b>Speaker</b>	Support
<b>Vibrator</b>	Support
<b>Microphone</b>	2 Microphones, 1 for noise reduction
<b>Display</b>	4-inch (18:9), IPS LTPS 1080*540
<b>Touch Panel</b>	Multi-touch panel, gloves and wet hands supported
<b>Sensor</b>	Gravity sensor, proximity sensor, light sensor, accelerometer sensor, vibration motor
<b>Indicator LED</b>	Power, charging, scanning indicator
<b>Card slot</b>	1 slot for SIM card, 1 slot for SIM or TF card
<b>Interfaces</b>	USB2.0, Type-C, OTG

## Performance

<b>CPU</b>	Qualcomm 1.8 GHz Octa-core / Cortex-A53 2.0GHz Octa-core
<b>RAM+ROM</b>	3 GB + 32 GB
<b>Expansion</b>	Supports up to 128 GB Micro SD card

## Developing Environment

<b>Operating System</b>	Android 10 / Android 11
<b>SDK</b>	Software Development Kit
<b>Language</b>	Java
<b>Tool</b>	Eclipse / Android Studio

## User Environment

<b>Operating Temp.</b>	-20 °C~+50 °C
<b>Storage Temp.</b>	-40 °C~+70 °C
<b>Humidity</b>	5% RH - 95% RH non condensing
<b>Drop Specification</b>	Multiple 1.5 m / 4.92 ft. drops to the concrete across the operating temperature range
<b>Tumble Specification</b>	1000 x 0.5 m / 1.64 ft. falls at room temperature
<b>Sealing</b>	IP65 per IEC sealing specifications
<b>ESD</b>	±15 KV air discharge, ±8 KV conductive discharge

## Communication

<b>WLAN</b>	Support 802.11 a/b/g/n/ac/d/e/h/i/k/r/v, 2.4G/5G dual-band, IPV4, IPV6 ; 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,etc.
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<b>WWAN</b>	2G: 850/900/1800/1900 MHz 3G: CDMA EVDO: BCO, BC1 WCDMA: B1/B2/B4/B5/B8 TD-SCDMA: A/F(B34/B39) 4G: B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B20/B28/B38/B39/B40/B41
<b>Vo-LTE</b>	Support Vo-LTE HD video voice call
<b>Bluetooth</b>	Bluetooth 4.2/4.1+HS/4.0/3.0+HS/2.1+EDR
<b>GNSS</b>	GPS/AGPS, GLONASS, Galileo, Internal Antenna

## Data Collection

### Camera

<b>Front Camera</b>	5MP
<b>Rear Camera</b>	Rear 13MP Autofocus with flash

### NFC

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

### UHF (Optional)

<b>Chip-set</b>	Impinj Indy R2000
<b>Frequency</b>	865-868 MHz / 920-925 MHz / 902-928 MHz
<b>Protocol</b>	EPC C1 GEN2 / ISO18000-6C
<b>Antenna</b>	Circular Polarized Antenna (4 dBi)
<b>Power</b>	1W (30 dBm, +5 dBm to +30 dBm adjustable) 2W Optional (33 dBm, for Latin America, etc.)
<b>R/W range</b>	>25 m (indoors); >15 m (open outdoors, Impinj MR6 tag)
<b>Fastest Read Rate</b>	900+ tags/sec

\*Ranges and rates depend on tags and environment

### Barcode Scanning (optional)

<b>2D Scanner</b>	Zebra: SE4710; Honeywell: N6603; Coasia: IA1665
<b>1D Symbologies</b>	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
<b>2D Symbologies</b>	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(See details in Accessory Guide)

Wrist Strap; Rubber Bumper; Charging Cradle

