



MC50

Handheld RFID Reader



Android 12/14



5G



Wi-Fi



Bluetooth



1D Barcode



2D Barcode



NFC



Camera



GNSS

Chainway MC50 UHF is our newly launched 5G high-performance UHF RFID Reader. It Integrates a self-developed Impinj E Series chips based UHF module and supports Impinj Gen2X, enhancing its RFID performance. The device features a UHF Pistol Grip pattern for easy disassembly and reassembly. The top-of-the-class configuration comprises advanced Android 12/14, Octa-core processor, and optional ultra-large memory. It integrates barcode scanning, NFC, dual camera, and multiple wireless data connections, as well as 6-inch HD screen , high-capacity removable battery and IP67 sealing. It can bring a new level of cost efficiency to a broad range of industries including retail, logistics, and warehousing.



Specification

Physical Characteristics	
Dimensions	165.0 x 83.8x 138.0mm / 6.49 x 3.30 x 5.43 in.
Weight	697 g / 24.59 oz. (device with battery)
Keypad	Power key, 2 scan keys, volume (+/-) keys
Battery	5000mAh removable main battery,
	5200mAh removable pistol battery with / without Meter(Optional)
	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 (optional) / 8GB + 128GB (optional)
Expansion	Supports up to 256GB TF card

Developing Environment	
Operating System	Android 12/14;
SDK	Chainway 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 1.5m / 4.92ft. drops to the concrete across the operating temperature range (Only main device)
Tumble Specification	1000 x 0.5m / 1.64ft. falls at room temperature
Sealing	Host 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; 2x2 MU-MIMO
	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
UHF (Optional)	
Engine	Based on Impinj E Series chips
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Impinj Gen2X	Supported
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna
Power	1W (30dBm, +5dBm to +30dBm adjustable)
	2W Optional (33dBm, for Latin America, etc.)
Max Read Range	26m (Impinj MR6 tag, size 70 x 15mm) 28m (Impinj M750 tag, size 70 x 15mm) 30m (Alien H3 Anti-Metal tag, size 130 x 42mm)
Fastest Read Rate	1300+ tags/sec (Circular Polarized)
Communication Mode	Pin Connector

*Ranges and rates depend on tags and environment

Barcode Scanning (Optional)	
2D Scanner	Zebra: SE4710/SE55/SE4750; 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	

Notice: Product specifications are subject to change without prior notice. / Model: MC50 / Update Date: 2025-10-23