

UHF | RAIN - Handheld Reader **CHAINWAY - MC80 UHF**

- RAIN RFID (UHF EPC Class1 Gen2, ISO 18000-63) compliant
- Android 16 OS, upgradeable to Android 20
- 5G, WiFi 7, Bluetooth 6.0, GPS
- Chip-level integrated UHF | RAIN - RFID
- IP65 / IP67 protection (optional)



UHF | RAIN - Handheld Reader Android 16 - Operating System

The CHAINWAY MC80 is among the world's first 5G handheld terminals powered by a Qualcomm chipset with integrated UHF | RAIN - RFID. Unlike traditional devices that require an external RFID module, the MC80 embeds high-performance read/write capability directly into its slim 15.5 mm body.

Chip-level integration greatly enhances mobility, convenience and operational efficiency, while the device keeps its rugged qualities: optional IP67 protection and 1.5 m drop resistance to MIL-STD-810H.

With a 6-inch HD+ display, the MC80 supports 5G, Wi-Fi 7 and Bluetooth 6.0 for fast, stable connectivity in demanding industrial environments. Processor speeds of up to 2.9 GHz and up to 6 TOPS of AI performance deliver the computing power for complex applications and multitasking.

A 50 MP rear camera, an enterprise-grade barcode engine, NFC and optional UWB for centimeter-level indoor positioning make the MC80 a versatile data capture platform - ideal for retail inventory, warehouse logistics, asset management and medical supply tracking.

Common Applications

- Retail Inventory
- Warehouse Logistics
- Asset Management
- Medical Supply Tracking
- Industrial Automation



MC80 Integrated 5G RFID Reader

TECHNICAL SPECIFICATIONS

UHF | RAIN

Engine	Built-in UHF RAIN - RFID, integrated into the Qualcomm chipset platform
Supported Standards	EPC C1 GEN2 / ISO18000-6C

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
SoftPOS	Supported

Communication

WLAN	Supports 802.11 a/b/g/n/ac/ax/be (Wi-Fi 7); 2*2 MIMO antennas; Fast roaming supported
WWAN (Europe, Asia)	2G: GSM / EDGE / GPRS (850/900/1800) 3G: WCDMA (B1/B5/B8) 4G: FDD-LTE B1/B3/B5/B7/B8/B20/B28A/B28B/B32; TDD-LTE B34/B38/B39/B40/B41 5G: N1/N3/N5/N7/N8/N14/N20/N28/N38/N40/N41/N77/N78/N79
WWAN (America)	2G: GSM / EDGE / GPRS (850/1900) 3G: WCDMA (B2/B4/B5) 4G: FDD-LTE B1/B2/B3/B4/B5/B7/B12/B13/B14/B25/B26/B28/B29/B30/B66/B71; TDD-LTE B38/B40/B41/B48 5G: N1/N2/N3/N5/N7/N12/N13/N14/N25/N26/N28/N29/N30/N38/N40/N41/N48/N66/N71/N77/N78
Vo-LTE	Support Vo-LTE HD video voice call
Bluetooth	Bluetooth 6.0, BLE, headset support
GNSS	Integrated GPS, BeiDou, GLONASS, Galileo and QZSS; A-GPS: supports XTRA
UWB (Optional)	Reliable communication and high-precision positioning in indoor and other complex environments

Camera

Rear Camera	50MP, supports PDAF and HDR, with flash
Front Camera	8MP

Barcode Scanning (Optional)

2D Scanner	Zebra: SE4710; SE4720; SE4770; SE55; CM60
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 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.

Physical Characteristics

Dimension	165.0 x 76.8 x 15.5 mm / 6.50 x 3.02 x 0.61 in
Weight	283 g / 9.98 oz. (device with battery)
Display	6-inch, 720 x 1612 (HD+); optional 1080 x 2160 (FHD+)
Touch Panel	Corning Gorilla Glass 3, multi-touch panel, gloves and wet hands supported
Battery	Slim battery: 5000mAh; thick battery: 8000mAh; smart battery supporting QC4.0 and PD3.0 fast charging, with hot-swap capability
Sensor	G-sensor, light sensor, proximity sensor, geomagnetic sensor, gyro / accelerometer combo sensor
Notification	Sound, LED indicator, vibrator
Audio	2 microphones; 1 speaker; 1 receiver
Keypad	1 power key, 2 scan keys, 1 volume (+/-) key, 1 multifunctional key
Card slot	1 Nano SIM + 1 eSIM, 1 TF card
Interfaces	USB 3.0 Type-C, supports OTG and water drop detection Bottom connector: 6-pin pogo contacts Rear connector: 2-pin pogo contacts

TECHNICAL SPECIFICATIONS

Performance Characteristics

CPU	Qualcomm Octa-core, 2.0 GHz, up to 2.9 GHz (optional)
AI Performance	2 TOPS, up to 6 TOPS (optional)
RAM+ROM	UFS, configurations from 4GB + 64GB to 16GB + 256GB
Expansion	Supports up to 2 TB TF card

User Environment

Operating Temp.	-20 °C to +50 °C / -4 °F to 122 °F
Storage Temp.	-40 °C to +70 °C / -40 °F to 158 °F
Humidity	5% RH - 95% RH (non condensing)
Drop Specification	MIL-STD-810H drop test: 1.5 m without a protective case and 2.0 m with a rugged rubber boot
Tumble Specification	2000 x 0.5 m falls, IEC compliant
Sealing	Optional IP65 / IP67 per IEC sealing specifications
ESD	±15 kV air discharge, ±8 kV contact discharge

Drivers & Support

Operating System	Android 16 (upgradeable to Android 20)
SDK	Chainway Software Development Kit
Language	Java
Tool	Eclipse / Android Studio

Accessories

Standard	Fast charger, USB cable, wrist strap
Optional	Pistol grip, four-slot battery charging cradle, single-device and single-battery charging cradle, rugged rubber boot, docking station, etc.

Part No. / Model

TBA	MC80 UHF
-----	----------