CHAINWAY

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MC80

5G UHF RFID Reader

Chip-level RFID integration, among the first globally adapted, Superior Performance



The Chainway MC80 is among the world' s first 5G handheld terminals powered by a Qualcomm chipset with integrated UHF RFID. Unlike traditional devices requiring external RFID modules, the MC80 embeds high-performance RFID read/write capability directly into its slim 15.5 mm body, greatly enhancing mobility, convenience, and operational efficiency.
With a 6-inch HD display, the MC80 supports 5G, Wi-Fi 7, and Bluetooth 6.0, ensuring fast and stable connectivity in demanding industrial environments. Its chip-level RFID integration enables a compact design while maintaining IP67 protection and 1.5 m drop resistance-lightweight yet rugged.
Equipped with a 50 MP rear camera and 8 MP front camera, the MC80 supports versatile data capture, making it ideal for retail inventory, warehouse logistics, asset management, and medical supply tracking. It delivers an efficient, intelligent, and reliable mobile solution that drives digital transformation and boosts enterprise productivity.

Large Battery, Fast Charge, Hot-Swap, Nonstop Work

The MC80 comes with a **5,000mAh removable battery** supporting **QC4.0 fast charging** and offers an optional **8,000mAh high-capacity version** for extended operation. It supports hot-swappable battery replacement, ensuring uninterrupted power and continuous task performance.The integrated battery and cover design allows quick removal with a simple press of the side latches, greatly improving replacement efficiency. Equipped with smart battery management, the MC80 enables real-time monitoring of power consumption and battery health, optimizing service life and operational reliability.

Flagship Performance With Long-term Support

The MC80 is among the world' s first 5G handheld terminals featuring Qualcomm' s integrated UHF RFID technology. Built on Qualcomm's long-lifecycle IoT platform, it offers processor speeds of **up to 2.9 GHz** and optional AI computing performance of **up to 6 TOPS** , it delivers exceptional computing power for complex applications and multitasking. Running **Android 16** and certified by **Google AER**, the MC80 ensures enterprise-grade security, stability, and compatibility, with ongoing OS maintenance and security updates for reliable long-term performance.
Multiple memory configurations are available, ranging from **4GB RAM + 64GB ROM to 16GB RAM + 256GB ROM**. Available in versions for the Americas and EMEA, enabling full global market coverage.

6 " FHD+ Display, Durable & Multi-Touch

The MC80 features a **6-inch** HD+ display with a standard resolution of **720 X 1612** and an optional FHD+ **1080 X 2160** high-resolution version for sharper visuals and a more immersive viewing experience. The screen is made of **Corning Gorilla Glass 3,** offering exceptional scratch and impact resistance for enhanced durability. It supports multi-touch and wet-hand operation, as well as compatibility with various glove types (such as rubber, nylon, and cotton),making it ideal for diverse industrial and outdoor environments. This ensures higher operational efficiency and a smoother interactive experience.

Optional UWB For Accurate Indoor Positioning

The MC80 offers optional UWB, providing centimeter-level positioning and real-time orientation. It maintains stable connectivity and accurate tracking even in dense or obstructed indoor environments, with strong anti-interference capability-ideal for applications such as healthcare management,warehouse logistics, and smart manufacturing.

Versatile Data Capture for Diverse Industries

The MC80 offers exceptional multimodal data capture capabilities, fully meeting the needs of high-efficiency operations across industries. It integrates UHF RFID and NFC functions to enable fast asset inventory, identity verification,and other applications, greatly enhancing efficiency and convenience. Equipped with a 50MP rear camera (supporting PDAF and HDR) and an 8MP front camera, the MC80 captures high-definition images with exceptional clarity, accurately recording on-site details. Its built-in enterprise-grade barcode engine easily reads all types of 1D and 2D barcodes-including damaged and DPM codes-ensuring both speed and accuracy,and helping users build a more efficient data collection system.

Stable 5G & Wi-Fi 7 Connectivity

The MC80 features advanced **5G, Wi-Fi 7**, and **Bluetooth 6.0** technologies for fast, stable, and intelligent wireless connectivity. With a **2X2 MIMO** design, Wi-Fi 7 delivers higher speed, lower latency, and reliable performance even in crowded or high-interference environments, supporting **seamless roaming** for uninterrupted communication.5G enables faster data transfer and smooth remote access to large files. Bluetooth 6.0 enhances connection stability,reduces latency, and supports more simultaneous device connections. Built for efficient wireless operations, the MC80 ensures always-on, reliable communication in any environment.

Rugged Design For Harsh Environments

The MC80 delivers outstanding industrial-grade durability, engineered for stable performance in demanding environments. It has passed the **MIL-STD-810H drop test from a height of 1.5 meters**, ensuring reliable operation against everyday impacts and drops.
An optional **IP67**-rated version provides enhanced protection and durability, allowing the device to operate reliably even in harsh conditions. Whether in field inspections,warehouse logistics, or industrial operations, the MC80 offers a stable, reliable, and dependable user experience.

Specification

Physical Characteristics	**Dimensions**	165mm*76.8mm*15.5mm/6.50*3.02*0.61 in
	Weight	283 g/9.98 oz. (device with battery)
	Display	6" , 720 X 1612 (HD+); optional 1080 X 2160 (FHD+)
	Touch Panel	Corning Gorilla Glass, 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.
	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.
	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 (+/-) keys, 1 multifunctional key
Performance	**CPU**	Octa-core, 2.0 GHz, with an optional configuration of up to 2.9 GHz
	AI Performance	2 TOPS AI performance, with an optional configuration of up to 6 TOPS
	RAM+ROM	UFS , with configurations ranging from 4GB + 64GB to 16GB + 256GB
	Expansion	Supports up to 2T TF card
Communication	**WLAN**	Supports 802.11 a/b/g/n/ac/ax/be (Wi-Fi 7); 2xX2 MIMO antennas; fast roaming supported
	WWAN (Europe, Asia)	2G: GSM/EDGE/GPRS(850/900/1800)
		3G: WCDMA (B1/B5/B8)
		4G:LTE-FDD: B1/B3/B5/B7/B8/B20/B28A/B28B/B32 LTE-TDD: B34/B38/B39/B40/B41
		5G: N1/N3/N5/N7/N8/N14/N20/N28/N38/N40/N41/N77/N78/N79

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Communication	**WWAN (America)**	2G: GSM/EDGE/GPRS(850/1900)	
		3G: WCDMA (B2/B4/B5)	
		4G:LTE-FDD:B1/B2/B3/B4/B5/B7/B12/B13/B14/B25/B26/B28/B29/B30/B66/B71; LTE-TDD: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): Enables reliable communication and high-precision positioning in indoor and other complex environments.	
Data Collection	**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 Symbologies	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved2 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.
	NFC	SoftPOS	Supported
		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
	RFID	Built-in UHF, integrated into the chipset platform	
Developing Environment	**Operating System**	Android 16 (upgradeable to Android 20)	
	SDK	Chainway Software Development Kit	
	Language	Java	
	Tool	Eclipse / Android Studio	
Environmental	**Operating Temperature**	-4°F to 122°F / -20°C to +50°C	
	Storage Temperature	-40°F to 158°F / -40°C to +70°C	
	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 0.5m/1.64ft. falls, IEC compliant	
	Sealing	Optional IP65/IP67, IEC compliant	
	ESD	± 15kV air discharge, ± 8kV contact discharge	
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	

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