



RFGate Mil920 Handheld RFID Reader



Android



4G



Wi-Fi



Bluetooth



RFID



1D Barcode



2D Barcode



NFC



Camera



GPS



PSAM



Fingerprint

RFGate Mil920 is an upgraded all-in-one high-performance UHF RFID Reader. It has integrated a self-developed Mil920 Impinj E710/R2000 based UHF module which offers industry-leading UHF performance. Mil920 adopts an integrated design, provides more stable UHF performance, and delivers higher durability. The superior system configuration of the mobile computer features the Android 11 / 13 platform, octa-core processor, optional mass internal memory and a large capacity removable battery. Mil920 also supports 2D scanning, NFC, fingerprint recognition and other functions, which enables it to be widely used in scenarios like banking, public security, warehousing, retail, logistics and other industries.



Specification

Performance

CPU	RAM+ROM	Octa-core, 2.3GHz 3GB + 32GB / 4GB +64GB
Expansion		(Optional)
Operating System		Supports up to 256GB Micro SD (TF) card
		Android 11/13

Communication

WLAN	802.11 a / b / g / n / ac, 2.4G / 5G dual-band
	2G: GSM (B2 / B3 / B5 / B8)
	3G: WCDMA (B1 / B2 / B4 / B5 / B8) CDMA2000 ECDO: BC0
WWAN	4G: B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B17 / B20 / B28A / B28B / B38 / B39 / B40 / B41
Bluetooth	5.0
Vo-LTE	Support
GNSS	GPS / AGPS, GLONASS, BeiDou, Galileo

Physical Characteristics

Dimensions	177.0 x 80.2 x 14.8mm / 6.97 x 3.15 x 0.58 in
Weight	626g / 22.08oz. (device with battery)
Display	5-inch (FHD), 1280 x 720 / 6-inch, 2160 x 1080
Touch Panel	Multi-touch panel, gloves and wet hands supported;
Battery	6700mAh / 13400mAh removable polymer battery Built-in 100mAh backup battery, supporting battery hot swap
Card slot	2 slots for PSAM card (optional); 1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
Interfaces	USB 2.0 Type-C, OTG, Type-C headphones supported
Audio	1 microphone; 1 speaker; 1 receiver
Notification	Sound, LED indicator, vibrator
Keypad	1 power key, 2 scan keys, 1 user-defined key, 2 volume keys (+/-) Gravity sensor, proximity sensor, light sensor, geomagnetic sensor (optional), gyroscope (optional)
Sensor	

Developing Environment

SDK	Software Development Kit
Language	Java Eclipse / Android
Tool	Studio

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 to 95%RH (non condensing)
Drop Specification	Multiple 1.5m / 4.9ft. drops to the concrete across the operating temperature range
Tumble Specification	1000 x 0.5m / 1.64 ft. falls at room temperature
Sealing	IP65 per IEC sealing specifications
ESD	±15KV air discharge, ±8KV conductive discharge

Data Collection

Camera

Front camera	5MP
Rear camera	Rear 13MP Autofocus with flash

UHF

Protocol	EPCglobal Gen 2 (ISO18000-6C)
Frequency	865-868MHz / 920-925MHz / 902-928MHz
Engine	Mil920-710 module based on Impinj E710 Mil920-2000 module based on Impinj Indy
Output power	R2000 1W (30dBm, +5dBm to +30dBm adjustable) 2W Optional (33dBm, for Latin America, etc.)
Antenna	Circular polarization; 5dB / 4dB (NFC supported)
Max Read Range	30m (Impinj MR6 tag, size 70 x 15mm) 32m (Impinj M750 tag, size 70 x 15mm) 33m (Alien H3 Ant-Metal tag, size 130 x 42mm)
Fastest Read Rate	1300+ tags / sec (Circular Polarization)

* Ranges and rates depend on tags and environment

Fingerprint (Optional)

Sensor	TLKINC02
Sensing Area (mm)	14.0 X 22.0
Resolution (dpi)	508dpi, 256 grayscale
Certifications	FIPS 201, FBI
Format Extraction	ISO19794, WSQ, ANSI 378, JPEG2000
Fake Finger Detection	Support by SDK
Security	AES, DES key encryption of the host communication channel

NFC (Optional)

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

Barcode Scanning (Optional)

2D Scanner	Zebra: SE4710
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, Macro QR code, Aztec, Max Code; Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX) etc.

Accessories

USB Cable, Adapter, Charging Cradle for device (optional), Charging Cradle for Polymer Battery (optional), etc.

* Please check details in accessories guide