HANDHELD RFID · 5G UHF READER

HH51LR

5G UHF RFID Handheld Computer · Android 14



The **HH51LR** is a flagship 5G UHF handheld reader built for the most intensive RFID workflows. A self-developed UHF module with the Impinj chip and Gen2X support reaches **1300+ tags/s** and a read range beyond **30 m** — slashing inventory time and lifting throughput.

Paired with a flagship octa-core processor, a 6-inch display and next-gen 5G + Wi-Fi 6E connectivity, it sets a new benchmark for peak efficiency and rugged reliability.

1300+	30 m+	6"	IP67
TAGS / SECOND	READ RANGE	1440 × 720 DISPLAY	RUGGED · 1.5 M DROP

KEY FEATURES

Impinj-powered UHF
Self-developed module on Impinj E-Series chips with Gen2X for peak performance.

Benchmark speed & range
1300+ tags/s read rate and up to 30 m+ range cut inventory time dramatically.

5G + Wi-Fi 6E
Global 5G bands, tri-band Wi-Fi 6E with 2×2 MIMO and Bluetooth 5.2.

Rugged Android 14
IP67 sealing, 1.5 m drop, octa-core 4nm CPU and a crisp 6-inch display.

TECHNICAL SPECIFICATIONS

Full Datasheet

UHF RFID

Engine	Self-developed, Impinj E-Series chips
Impinj Gen2X	Supported
Frequency	865–868 / 902–928 MHz
Protocol	EPC C1 Gen2 / ISO 18000-6C
Antenna	Circular polarized
Output power	1 W (30 dBm, +5 to +30 dBm adj.); 2 W optional
Fastest read rate	1300+ tags/s
Max read range	Up to 30 m (anti-metal tag); 28 m (M750)

SCANNING & IMAGING

2D scan engine	Zebra SE4710 / SE55 / CM60 (optional)
Symbologies	All major 1D & 2D (QR, DataMatrix, PDF417, postal...)
Rear camera	16 MP autofocus with flash
Front camera	5 MP
NFC	13.56 MHz · ISO 14443A/B, ISO 15693 · 2–4 cm

COMMUNICATION

WLAN	Wi-Fi 6E tri-band 2.4/5/6 GHz, 2×2 MIMO, fast roaming
WWAN	5G (N1–N79) · 4G / 3G / 2G global bands
Bluetooth	Bluetooth 5.2 · Vo-LTE supported
GNSS	GPS/AGPS, GLONASS, BeiDou, Galileo

PLATFORM

OS	Android 14 (upgradable to 18+)
CPU	Qualcomm octa-core 2.4 GHz (4nm)
Memory	UFS 4 GB + 64 GB / 8 GB + 256 GB (opt.)
Expansion	microSD up to 256 GB (512 GB extreme)
SDK	Manufacturer SDK · Java · Android Studio

DISPLAY & BATTERY

Display	6" HD 1440 × 720 (18:9), Gorilla Glass, glove/wet touch
Battery	5000 mAh main + 5200 mAh pistol · hot-swap · QC3.0
Keypad	Power, 2 scan keys, volume, multifunction
Interfaces	USB Type-C (USB 3.1, OTG)

PHYSICAL & ENVIRONMENT

Dimensions	165 × 83.8 × 138 mm
Weight	707 g (with battery)
Sealing	IP67
Drop spec	1.5 m to concrete · MIL-STD-810H
Operating temp.	−20 °C to +50 °C
Humidity	5–95% non-condensing
ESD	±15 KV air · ±8 KV contact

ALSO INCLUDES

- **Precise RFID tag positioning**
- **Detachable pistol grip**
- **Hot-swap battery**
- **Multiple scan engines**
- **eSIM (optional)**
- **5 environmental sensors**

RFID.BG

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End-to-end deployment: consulting, hardware, software, install & support.

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