RHINOMOBILITY

RHINO R66

Mobile Computer

Android 13 | 4G | Wi-Fi 6 | Bluetooth | 1D Barcode | 2D Barcode | NFC | Fingerprint | UHF | Camera | GPS

RHINO R66 is a highly expandable large-screen rugged handheld computer. Equipped with octa-core processor and Android 13, **R66** comes with a 5.5-inch HD display, barcode scanning, NFC functions, and supports Impinj Gen2X for enhanced RFID performance. The device supports quick charge and UHF sled for high extensibility. The premium Android 13 version offer optional fingerprint recognition, built-in UHF functions and with Wi-Fi 6-ready platform for higher data throughput and security that fully satisfy the needs in logistics, warehouse, manufacturing, retail, etc. applications.

UHF

UHF Sled Reader

Pistol Grip

Specification

Physical Characteristics

Dimensions	160.0 x 76.0 x 15.5 / 17.0mm / 6.3 x 2.99 x 0.61 / 0.67in.
Weight	287g / 10.12oz.(device with battery) 297g / 10.47oz.(device with battery, Fingerprint / Built-in UHF)
Keyped	1 power key, 2 scan keys, 2 volume keys
Battery	5200mAh optional pistol battery, support QC3.0 and RTC
	Standby: up to 490 hours (only main battery ; WiFi: up to 470h; 4G: up to 440h)
	Continuous use: over 12 hours (depending on user environment)
	Charging time: 2.5 hours (charge device by standard adaptor and USB cable)
Display	5.5-inch high definition full display (18:9), IPS 1440 x 720
Touch Panel	Multi-touch panel, gloves and wet hands supported
Sensor	Accelerometer sensor, light sensor, proximity sensor, gravity sensor gyroscope sensor (optional), geomagnetic sensor (optional)
Notification	Sound, LED indicator, vibrator
Audio	2 microphones, 1 for noise cancellation; 1 speaker; receiver
Card slot	1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
Interfaces	USB Type-C, USB 3.1, OTG, extended thimble;

Performance

CPU	Octa-core, 2.0 GHz Qualcomm
RAM+ROM	4GB + 64GB / 6GB + 128GB
Expansion	Supports up to 256GB Micro SD (TF) card

Developing Environment

Operating System	Android 13; GMS, 90-day security updates, Android Enterprise Recommended. Zero-Touch. FOTA. Soti MobiControl. SafeUEM supported. Committed support for a future upgrade to Android 18 pending feasibility
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 1.8m / 5.91ft. drops (at least 20 times) to the concrete across the operating temperature range
	Multiple 2.4m / 7.87ft. drops (at least 20 times) to the concrete after installed rubber boots
	MIL-STD-810H(SGS Test): Multiple 1.22 M drops (at least 20 times) to the plate across the operating temperature range
Tumble Specification	1000 x 0.5m / 1.64ft. falls at room temperature
Sealing	IP68 per IEC sealing specifications
ESD	± 15KV air discharge, ± 8KV 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/d/e/h/i/k/r/v, 2.4G/5G dual-band, IPV4, IPV6, 5G PA;
	Fast roaming: PMKID caching, 802.11r, OKC
	Operating Channels: 2.4G(channel 1~13), 5G(channel36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132, 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,etc.
WWAN (Europe, Asia)	2G: 850/900/1800/1900 MHz
	3G: CDMA EVDO: BC0
	WCDMA: 850/900/1900/2100MHz
	TD-SCDMA: A/F(B34/B39)
	4G: B1/B3/B5/B7/B8/B20/B38/B39/B40/B41
WWAN(America)	2G: 850/900/1800/1900MHz
	3G: 850/900/1900/2100MHz
	4G: B2/B4/B5/B7/B8/B12/B13/B17/B28A/B28B/B38

Data Collection

Camera

Rear Camera	Rear 13MP Autofocus with flash Facial Recognition ISO19794-5 Compatible

NFC

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

Barcode Scanning (Optional)

2D Scanner	Honeywell: N6603/N6703/N6803FR
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.

UHF

*For detailed specification, please check C66 UHF part

Fingerprint

Optional 1

Sensor	TCS1
Sensing Area (mm)	12.8 × 18.0
Resolution (dpi)	508 dpi, 8-bit greylevel
Certifications	FIPS 201, STQC
Format Extraction	ISO 19794, WSQ, ANSI 378, JPEG2000
Fake Finger Detection	Support by SDK
Security	AES, DES key encryption of the host communication channel

Optional 2

Sensor	TLK1NC02
Sensing Area (mm)	14.0 X 22.0
Resolution (dpi)	508dpi, 256 greylevel
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

Optional accessories(See details in Accessory Guide)

Separate handle with one button； Handle + battery (handle battery 5200mAh, one button) ;

UHF back clip + handle (5200mAh, one button) ; Wrist Strap; Rubber Bumper; Charging Cradle

RHINO MOBILITY

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Specification

UHF1

UHF Back Clip

UHF2

R66 + R6 UHF Sled

UHF3

R66 UHF (Built-in)

UHF1 (Optional, R66 UHF Back Clip)	
Engine	CM710-1 module based on Impinj E710
Frequency	865-868MHz / 920-925MHz / 902-928MHz
Impinj Gen2X	Supported
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna (4dBi)
Power	1W (30dBm, +5dBm to +30dBm adjustable)
	2W Optional (33dBm, for Latin America, etc.)
Max Read Range	28m (Impinj MR6 tag, size 70 x 15mm) 28m (Impinj M750 tag, size 70 x 15mm) 32m (Alien H3 Anti-Metal tag, size 130 x 42mm)
Fastest Read Rate	1300+ tags/sec
Communication Mode	Pin Connector

UHF2 (Optional, R66 + R6 UHF Sled)	
Engine	CM710-1 module based on Impinj E710
Frequency	865-868MHz / 920-925MHz / 902-928MHz
Impinj Gen2X	Supported
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna (3dBi)
Power	1W (30dBm, support +5~+30dBm adjustable)
	2W Optional (33dBm, for Latin America, etc.)
Max Read Range	30m (Impinj MR6 tag, size 70 x 15mm) 28m (Impinj M750 tag, size 70 x 15mm) 31m (Alien H3 Anti-Metal tag, size 130 x 42mm)
Fastest Read Rate	1300+ tags/sec
Communication Mode	Pin Connector / Bluetooth

UHF3 (Optional, R66 UHF Built-in)	
Engine	CM-5N module based on Impinj E510
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Impinj Gen2X	Supported
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Linear Polarized Antenna (-5 dBi)
Power	1 W (+5dBm to +30dBm adjustable)
Max Read Range	2.4m (Impinj MR6 tag, size 70 x 15mm) 2.6m (Impinj M750 tag, size 70 x 15mm) 2.7m (Alien H3 Anti-Metal tag, size 130 x 42mm)

* Ranges are measured in the open outdoors and low interference environment, and rate is measured in a laboratory low interference environment, they are affected by tags and environment.

* built-in UHF version does not support pistol