



Specification

Physical Characteristics	
Dimensions	160.0 x 76.0 x 15.5 / 17.0 mm / 6.3 x 2.99 x 0.61 / 0.67 in.
Weight	Android 9: 287g / 10.12oz. (device with battery) 657g / 23.17oz. (with battery, UHF 1, UHF back clip) 798g / 28.15oz. (with battery, UHF 2, C66+R6) Android 11: 287g / 10.12oz. (device with battery) 297g / 10.47oz. (device with battery, Fingerprint / Volume Measurement / Built-in UHF)
Keypad	1 power key, 2 scan keys, 2 volume keys
Battery	Removable main battery (normal version:4420 mAh ; Android 11 with fingerprint / built-in UHF / volume measurement version: 5200mAh) 5200 mAh 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 IGZO 1440 x 720
Touch Panel	Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported
Sensor	Accelerometer sensor, light sensor, proximity sensor, gravity sensor
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	Android 9: USB Type-C, USB 3.0, OTG, extended thimble; Android 11: USB Type-C, USB 3.1, OTG, extended thimble;
Performance	
CPU	Android 9: Qualcomm Snapdragon™ 450 Octa-core, 1.8 GHz Android 11: Qualcomm Snapdragon™ 662 Octa-core, 2.0 GHz
RAM+ROM	3 GB + 32 GB / 4 GB + 64 GB
Expansion	Supports up to 128 GB Micro SD card
Developing Environment	
Operating System	Android 9; GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, Soti MobiControl, SafeUEM supported Android 11; GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, Soti MobiControl, SafeUEM supported. Committed support for a future upgrade to Android 12, 13, and Android 14 pending feasibility
SDK	Chainway Software Development Kit
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 1.8 m / 5.91 ft. drops (at least 20 times) to the concrete across the operating temperature range Multiple 2.4 m / 7.87 ft. drops (at least 20 times) to the concrete after installed rubber bumper
Tumble Specification	1000 x 0.5 m / 1.64 ft. falls at room temperature
Sealing	IP65 per IEC sealing specifications
ESD	±15 KV air discharge, ±8 KV conductive discharge
Communication	
Vo-LTE	Support Vo-LTE HD video voice call
Bluetooth	Android 9: Bluetooth 4.2/4.1+HS/4.0/3.0+HS/2.1+EDR Android 11: Bluetooth 5.1
GNSS	GPS/AGPS, GLONASS, BeiDou, Galileo, internal antenna

	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
WLAN	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,etc.
	2G: 850/900/1800/1900 MHz
	3G: CDMA EVDO: BC0
WWAN (Europe, Asia)	WCDMA: 850/900/1900/2100MHz TD-SCDMA: A/F(B34/B39)
	4G: B1/B3/B5/B7/B8/B20/B38/B39/B40/B41
	2G: 850/900/1800/1900 MHz
WWAN(America)	3G: 850/900/1900/2100 MHz 4G: Android 9: B2/B4/B5/B7/B12/B17/B38 Android 11: B2/B4/B5/B7/B8/B12/B13/B17/B28A/B28B/B38

Data Collection

Camera

Rear Camera	Rear 13MP Autofocus with flash
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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

Barcode Scanning (Optional)

2D Scanner	Zebra: SE4710/SE2100; Honeywell: N6603; E3200; IA1665
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.

UHF1 (Optional)

Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
R/W range	Up to 15 m (open outdoors, Impinj MR6 tag)

*For detailed specification, please check C66 UHF part

UHF2 (Optional)

Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
R/W range	Up to 10 m (open outdoors, Impinj MR6 tag)

*For detailed specification, please check C66 UHF part

UHF3 (Optional, only Android 11, Built-in UHF)

Power	1 W (+19 dBm to +30 dBm adjustable)
R/W range	Up to 1.5 m

*For detailed specification, please check C66 UHF part

Fingerprint (Optional, only Android 11)

Sensor	Capacitive TCS1
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* For detailed specification, please check C66 Fingerprint part

Volume Measurement (Optional, only Android 11)

Measured distance	40m-4m
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* For detailed specification, please check C66 Volume Measurement part

Optional accessories(See details in Accessory Guide)

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

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

Specification

UHF1

UHF Back Clip



UHF2

C66+R6 Sled



UHF3

Built-in UHF



UHF1 (Optional)

Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna (4 dBi)
Power	1W (30 dBm, +5 dBm to +30 dBm adjustable) 2W Optional (33 dBm, for Latin America, etc.)
R/W range	Up to 15 m (open outdoors, Impinj MR6 tag)
Fastest Read Rate	900+ tags/sec
Communication Mode	Pin Connector

UHF2 (Optional)

Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna (3 dBi)
Power	1W (30 dBm, support +5~+30 dBm adjustable) 2W Optional (33 dBm, for Latin America, etc.)
R/W range	Up to 10 m (open outdoors, Impinj MR6 tag)
Fastest Read Rate	900+ tags/sec
Communication Mode	Pin Connector / Bluetooth

UHF3 (Optional, only Android 11, Built-in UHF)

Engine	CM-5N module based on Impinj E510
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular polarization (-2.5 dBi)
Power	1 W (+19 dBm to +30 dBm adjustable)
R/W range	Up to 1.5 m

*Ranges and rates depend on tags and environment, built-in UHF version does not support pistol

Fingerprint



Fingerprint (Optional, only Android 11)

Sensor	TCS1
Sensing Area (mm)	12.8 × 18.0 ; 10.4 × 14.4
Resolution (dpi)	508 dpi, 8-bit greyscale
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

*Fingerprint version does not support pistol

Volume Measurement



Volume Measurement (Optional, only Android 11)

Sensor	IRS1645C
Measurement Error	<5%
Module	MD101D
Field of view Angle	D71°/H60°/V45°
Measurement speed	2s/ piece
Measured distance	40cm-4m

*Volume Measurement version does not support pistol