



# C66

## Mobile Computer



Chainway C66 is a highly expandable large-screen rugged handheld computer. Equipped with Qualcomm octa-core processor and Android 11 OS, C66 comes with a 5.5-inch HD display, barcode scanning, and NFC functions. The device supports quick charge and UHF sled for high extensibility. The premium Android 11 version offers optional fingerprint recognition, volume measurement, 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	
<b>Dimensions</b>	160.0 x 76.0 x 15.5 / 17.0mm / 6.3 x 2.99 x 0.61 / 0.67in.
<b>Weight</b>	287g / 10.12oz.(device with battery) 297g / 10.47oz.(device with battery, Fingerprint / Volume Measurement / Built-in UHF)
<b>Keypad</b>	1 power key, 2 scan keys, 2 volume keys
<b>Battery</b>	Removable main battery (normal version:4420 mAh ; Android 11 with fingerprint / built-in UHF / volume measurement version: 5200mAh ) 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)
<b>Display</b>	5.5-inch high definition full display (18:9), IPS IGZO 1440 x 720
<b>Touch Panel</b>	Multi-touch panel, gloves and wet hands supported
<b>Sensor</b>	Accelerometer sensor, light sensor, proximity sensor, gravity sensor
<b>Notification</b>	Sound, LED indicator, vibrator
<b>Audio</b>	2 microphones, 1 for noise cancellation; 1 speaker; receiver
<b>Card slot</b>	1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
<b>Interfaces</b>	USB Type-C, USB 3.1, OTG, extended thimble;
Performance	
<b>CPU</b>	Qualcomm Snapdragon™ 662 Octa-core, 2.0 GHz
<b>RAM+ROM</b>	3GB + 32GB / 4GB + 64GB
<b>Expansion</b>	Supports up to 128GB Micro SD card
Developing Environment	
<b>Operating System</b>	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
<b>SDK</b>	Chainway Software Development Kit
<b>Language</b>	Java
<b>Tool</b>	Eclipse / Android Studio
User Environment	
<b>Operating Temp.</b>	-4°F to 122°F / -20 °C to +50 °C
<b>Storage Temp.</b>	-40°F to 158°F / -40 °C to +70 °C
<b>Humidity</b>	5% RH - 95% RH non condensing
<b>Drop Specification</b>	Multiple 1.8m / 5.9ft. 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
<b>Tumble Specification</b>	1000 x 0.5m / 1.64ft. falls at room temperature
<b>Sealing</b>	IP65 per IEC sealing specifications
<b>ESD</b>	± 15KV air discharge, ± 8KV conductive discharge
Communication	
<b>Vo-LTE</b>	Support Vo-LTE HD video voice call
<b>Bluetooth</b>	Bluetooth 5.1
<b>GNSS</b>	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
<b>WLAN</b>	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
<b>WWAN (Europe, Asia)</b>	WCDMA: 850/900/1900/2100MHz TD-SCDMA: A/F(B34/B39)
	4G: B1/B3/B5/B7/B8/B20/B38/B39/B40/B41
<b>WWAN(America)</b>	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

<b>Rear Camera</b>	Rear 13MP Autofocus with flash
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### NFC

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

## Barcode Scanning (Optional)

<b>2D Scanner</b>	Zebra: SE4710/SE2100; Honeywell: N6603; E3200; IA166S
<b>1D Symbologies</b>	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
<b>2D Symbologies</b>	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, only Android 11)

<b>Sensor</b>	TCS1
<b>Sensing Area (mm)</b>	12.8 × 18.0 ; 10.4 x 14.4
<b>Resolution (dpi)</b>	508 dpi, 8-bit greylevel
<b>Certifications</b>	FIPS 201, STQC
<b>Format Extraction</b>	ISO 19794, WSQ, ANSI 378, JPEG2000
<b>Fake Finger Detection</b>	Support by SDK
<b>Security</b>	AES, DES key encryption of the host communication channel

\* Fingerprint version does not support pistol

## Volume Measurement (Optional, only Android 11)

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

\* Volume Measurement version does not support pistol

## 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

# Specification

## UHF1

UHF Back Clip



## UHF2

C66 + R6 UHF Sled



## UHF3

C66 UHF (Built-in)



### UHF1 (Optional, C66 UHF Back Clip)

<b>Engine</b>	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
<b>Frequency</b>	865-868MHz / 920-925MHz / 902-928MHz
<b>Protocol</b>	EPC C1 GEN2 / ISO18000-6C
<b>Antenna</b>	Circular Polarized Antenna (4dBi)
<b>Power</b>	1W (30dBm, +5dBm to +30dBm adjustable) 2W Optional (33dBm, for Latin America, etc.)
<b>Max Read Range</b>	Impinj E710 chip: 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) Impinj R2000 chip: 22m (Impinj MR6 tag, size 70 x 15mm) 24m (Impinj M750 tag, size 70 x 15mm) 30m (Alien H3 Anti-Metal tag, size 130 x 42mm)
<b>Fastest Read Rate</b>	1150+ tags/sec
<b>Communication Mode</b>	Pin Connector

### UHF2 (Optional, C66 + R6 UHF Sled)

<b>Engine</b>	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
<b>Frequency</b>	865-868MHz / 920-925MHz / 902-928MHz
<b>Protocol</b>	EPC C1 GEN2 / ISO18000-6C
<b>Antenna</b>	Circular Polarized Antenna (3dBi)
<b>Power</b>	1W (30dBm, support +5/+30dBm adjustable) 2W Optional (33dBm, for Latin America, etc.)
<b>Max Read Range</b>	Impinj E710 chip: 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) Impinj R2000 chip: 25m (Impinj MR6 tag, size 70 x 15mm) 26m (Impinj M750 tag, size 70 x 15mm) 25m (Alien H3 Anti-Metal tag, size 130 x 42mm)
<b>Fastest Read Rate</b>	1150+ tags/sec
<b>Communication Mode</b>	Pin Connector / Bluetooth

### UHF3 (Optional, only Android 11, C66 UHF Built-in)

<b>Engine</b>	CM-5N module based on Impinj E510
<b>Frequency</b>	865-868 MHz / 920-925 MHz / 902-928 MHz
<b>Protocol</b>	EPC C1 GEN2 / ISO18000-6C
<b>Antenna</b>	Circular polarization (-5 dBi)
<b>Power</b>	1 W (+5dBm to +30dBm adjustable)
<b>Max Read Range</b>	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