



# C66

## Mobile Computer



Chainway C66 is a highly expandable large-screen rugged handheld computer. Equipped with Qualcomm octa-core processor and Android 11 / 13, 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 / 13 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 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 gyroscope sensor (optional), geomagnetic sensor (optional)
<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 / 13; GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, Soti MobiControl, SafeUEM supported. Committed support for a future upgrade to 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 / 5.91ft. 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
<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
<b>WLAN</b>	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(channel 36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132, 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.

<b>WWAN</b> <b>(Europe, Asia)</b>	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
<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; CM60
<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 1

<b>Sensor</b>	TCS1
<b>Sensing Area (mm)</b>	12.8 × 18.0
<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

### Optional 2

<b>Sensor</b>	TLK1NC02
<b>Sensing Area (mm)</b>	14.0 X 22.0
<b>Resolution (dpi)</b>	508dpi, 256 greylevel
<b>Certifications</b>	FIPS 201, FBI
<b>Format Extraction</b>	ISO19794, WSQ, ANSI 378, JPEG2000
<b>Fake Finger Detection</b>	Support by SDK
<b>Security</b>	AES, DES key encryption of the host communication channel

## 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>	1300+ 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>	1300+ tags/sec
<b>Communication Mode</b>	Pin Connector / Bluetooth

### UHF3 (Optional, 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