



C66

Mobile Computer



Chainway C66 is a highly expandable large-screen rugged handheld computer. Equipped with Qualcomm octa-core processor and Android 9 / 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

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

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(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.
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: 850/900/1800/1900 MHz 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
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 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.

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	1W (+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

Notice: Product specifications are subject to change without prior notice. / Model: C66 / Update Date: 2022-03-31

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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