



# C61-Cold

## Mobile Computer



Android



4G



WiFi



Bluetooth



1D Barcode



2D Barcode



NFC



UHF



Camera



GPS

Chainway C61-Cold , specializing for cold-chain warehousing, is Shenzhen Chainway's industrial-grade and smart handheld terminal with high performance. It could work normally and decode efficiently in low temperature and high relative humidity enviroment of  $-30^{\circ}\text{C} / -22^{\circ}\text{F}$  by equipments with 6400 mAh large-capacity battery of low temperature resistance and professional anti-condensation screen. Meanwhile it supports optional UHF, NFC and other functions, and features dual-band Wifi antenna intently optimizing for indoor applications and scenarios. All of these characteristics make this model perfect to be deployed in in/out storage, inventory and sorting for cold-chain enviroment and significantly improve work efficiency.



# Specification

## Physical Characteristics

<b>Dimensions</b>	202.0 x 72.5 x 32.0 mm / 7.95 x 2.85 x 1.26 in.
<b>Weight</b>	370g / 13.05oz. (SE4710) ; 404g / 14.25oz. (SE4850)
<b>Keypad</b>	Main keyboard (optional) : 27 keys / 37 keys / 47 keys; Side keys: 2 scan keys + 2 volume keys + 1 user-defined key
<b>Battery</b>	6400 mAh removable main battery, 5200 mAh optional pistol battery, support QC3.0 and RTC; Built in 100mAh backup battery, supporting battery hot swap, improving reliability and ensuring user data security Continuous use: 5.5 hours (continuous scan at 500ms interval at -30 °C / -22°F)
<b>Display</b>	4-inch industrial-grade low-temperature-resistant capacitive touch screen, gloves and wet hands supported TN a-Si 800*480
<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; 2 speakers; receiver
<b>Card slot</b>	1 slot for SIM card, 1 slot for TF card
<b>Interfaces</b>	Android 9: USB Type-C, USB 3.0, OTG, extended thimble Android 11: USB Type-C, USB 3.1, OTG, extended thimble

## Performance

<b>CPU</b>	Android 9: Qualcomm Snapdragon™450 Octa-core, 1.8 GHz Android 11: Qualcomm Snapdragon™662 Octa-core, 2.0 GHz
<b>RAM+ROM</b>	3 GB + 32 GB / 4 GB + 64 GB
<b>Expansion</b>	Supports up to 128 GB Micro SD card

## Developing Environment

<b>Operating System</b>	Android 9: GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, SafeUEM supported Android 11: GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, 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>	-22°F to 122°F / -30°C to 50°C
<b>Storage Temp.</b>	-40°F to 158°F / -40°C to 70°C
<b>Humidity</b>	5% RH to 95% RH (non condensing)
<b>Drop Specification</b>	Multiple 1.8 m / 5.9 ft. drops (at least 20 times) to the concrete across the operating temperature range
<b>Tumble Specification</b>	1000 x 0.5 m / 1.64 ft. falls at room temperature
<b>Sealing</b>	IP65 per IEC sealing specifications
<b>ESD</b>	±15 KV air discharge, ±8 KV conductive discharge

## Communication

<b>WWAN (Europe, Asia)</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
<b>WWAN(America)</b>	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
<b>Vo-LTE</b>	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 (Europe, Asia)</b>	2G: 850/900/1800/1900 MHz 3G: CDMA EVDO: BCO WCDMA: 850/900/1900/2100 MHz 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: Android 9: B2/B4/B5/B7/B12/B17/B38 Android 11: B2/B4/B5/B7/B12/B13/B17/B28A/B28B/B38
<b>Vo-LTE</b>	Support Vo-LTE HD video voice call
<b>Bluetooth</b>	Android 9: Bluetooth 4.2/4.1+HS/4.0/3.0+HS/2.1+EDR Android 11: Bluetooth 5.1
<b>GNSS</b>	GPS/AGPS, GLONASS, BeiDou, Galileo, internal antenna

## Data Collection

### Camera

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

<b>Frequency</b>	13.56 MHz
<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>	2-4 cm

### UHF (Optional)

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

\*Ranges and rates depend on tags and environment

### Barcode Scanning (optional)

<b>2D Scanner</b>	Zebra: SE4710/SE4750SR/SE4750MR/SE4750DP/SE4850; Honeywell: N6603/EX30
<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.

### 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; Charging Cradle

Notice: Product specifications are subject to change without prior notice. / Model: C61-Cold / Update Date: 2022-03-31

**CHAINWAY®**

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