Battery information

The Chameleon device is powered by a rechargeable, standard Li-Ion Polymer battery. A wall charger (AC power adaptor) is included with the device for charging the battery. The battery comes partially charged. You must fully charge the battery before using your device for the first time. After the first charge, you can use the device while it is charging. Please take note that recharging with the tablet turned off significantly reduces charge time.

- **Battery size:** 108mm x 63mm x 11.4mm
- **Battery weight:** 0.12kg

- **Charging time:** Approx. 2.5 hours
- **Operation time:** Approx. 10 hours (depending on configuration)

Battery brand

Rechargeable lithium ion polymer battery

Battery certifications

CHAMELEON
RECHARGEABLE LI-ION POLYMER BATTERY
MODEL: CH501
POWER RATING: 3.85V ⎓ 7100mAh/27Wh
Nominal Voltage: 3.85V
Charging Limit Voltage: 4.4V
Implementation Standard: GB/T18287-2013

⚠ CAUTION

Read the user manual operating instructions before use.Danger of explosion if battery is incorrectly replaced.Replaced only with battery designed for this product. Do not attempt to disassemble, open or service battery.Only use the battery charger designed for this product.Do not expose to high temperatures (above 140°f/60°C).Dispose of used battery as per manufacturers instructions.

Made in China

Battery model number

Power rating:

3.85V 7100mAh/27Wh
Nominal voltage: 3.85V
Charging limit voltage: 4.4V
Implementation standard:
GB/T18287-2013

Caution! Battery safety information

Read the user manual operating instructions before use. Danger of explosion if battery is incorrectly replaced. Replace only with battery designed for this product. Do not attempt to disassemble, open, or service the battery. Only use the battery charger designed for this product. Do not expose to high temperatures (above 140°F/60°C). Dispose of used battery as per manufacturer's instructions.

Unique barcode & Serial number

Note: The battery is a consumable product.

| Battery information

Conditioning a new battery

Before you use a battery pack for the first time, there is a conditioning process that you should follow:

1. Connect the AC adapter and fully charge the battery.
2. Turn on the device and complete setting up the operating system.
3. Disconnect the AC adapter.
4. Operate the device using battery power.
5. Reconnect the AC adapter and fully charge the battery again.
6. Follow these steps again until the battery has been charged and discharged three times.

Use this conditioning process for all new batteries, or if a battery hasn't been used for a long time.

The battery conditioning process ensures your battery accepts the maximum possible charge. Failure to follow this procedure will prevent you from obtaining the maximum battery charge, and will also shorten the effective lifespan of the battery. In addition, the useful lifespan of the battery is adversely affected by the following usage patterns:

- Using the device on constant AC power.
- Not discharging and recharging the battery to its extremes, as described above.
- Frequent use; the more you use the battery, the faster it will reach the end of its effective life.

Chameleon 5R Power Management:

Power supplied to different components is controlled on an as-needed basis.
This allows maximum power conservation and performance at the same time.

General battery safety information:

- Only use the specified battery and power supply provided.
- Use of any other batteries or power supplies may result in fire, or damage to the device, battery, or operator.
- If the device is going to be stored for more than three months, remove the battery from the device to avoid battery damage or self-discharge.
- Do not disassemble the battery pack. There are no user-serviceable parts inside. Doing so may present risk of exposure to harmful chemicals, explosion or fire.
- Contact your local waste disposal service provider regarding the disposal or recycling of used batteries. Please adhere to local laws and regulations when it comes to recycling the battery.

SD/ SIM/ SAM card installation

First turn off the Chameleon device and remove the battery. The SD/SIM/SAM card panel can only be accessed with the battery removed.
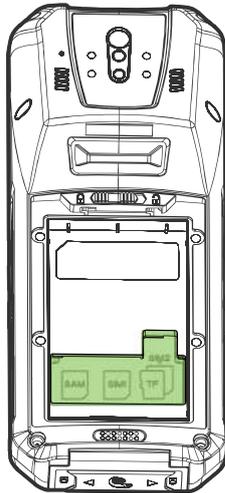
■ Step 1: Locate SD/SIM/SAM card cover position as indicated in the image
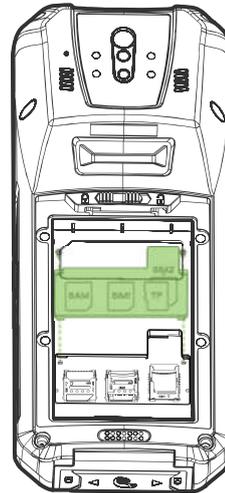
■ Step 2: Remove SD/SIM/SAM card cover as shown above

SD/ SIM/ SAM card installation
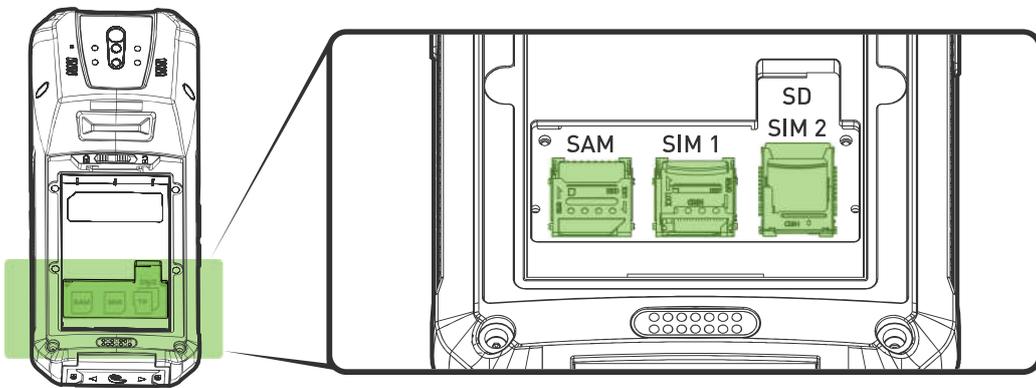
- Insert micro SD memory card into slot in correct orientation as shown above. The device can accommodate a micro SD card with memory of up to 128GB. A Micro SD memory card can be installed at a later stage, does not need to be purchased with the device.
- Insert 2 x Micro SIM (Subscriber Identity Module) cards into slot in correct orientation as shown above.
- Insert 2 x Micro SAM (Secure Access Module) cards into slot in correct orientation as shown above.
- Only a single SIM or SAM card can be inserted if so required. Close the card cover after completion.

  *an optional tamper-proof security seal can be added to protect this internal card section from unauthorized entry

Door

All Chameleon 5R handheld devices have a slide lock door. The door is located on the bottom side of each device. This single door covers the external connection ports and the IC card reader.

When looking at your device screen in the upright position (fingerprint reader at top), the doors will always be locked when the slidebar is in the right position, and unlocked when the slidebar shifts left.


Unlock   Lock
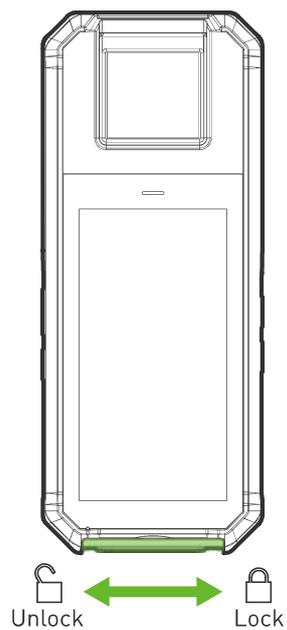
USB3.0 / DC Charger / Audio / IC Card Reader

When opening the Chameleon 5R device door, the user will gain access to a range of external connection ports and a contact card reader as shown in the illustration below.

DC Charge:
(Custom unique connector)

USB3.0 Type A

Audio Port:
3.5mm Stereo Audio Jack

USB   CHARGER   AUDIO   CARD READER

IC Contact Card
Reader Slot
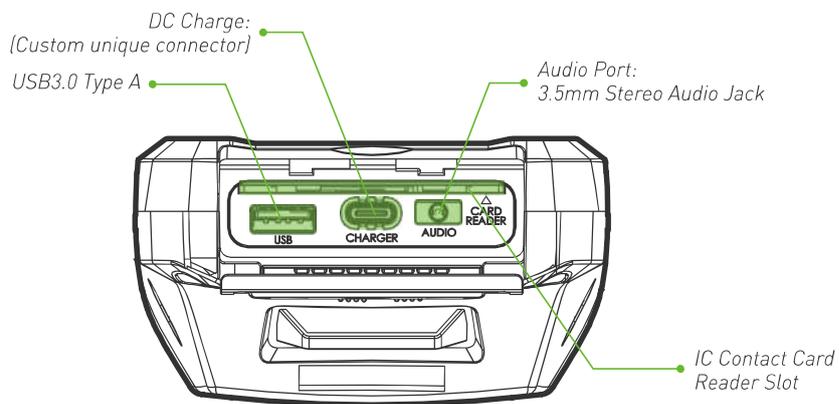
■ Tablet bottom view (Note door in open position)

Smart card

1234 5678 9101 1121

■ Always insert 'smart chip' side first
(as indicated with arrow direction)
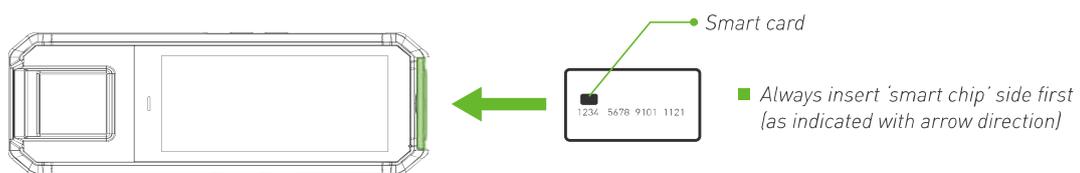
Barcode scanner

The barcode reader is located on front side of the device, below the fingerprint sensor, as indicated on image below:
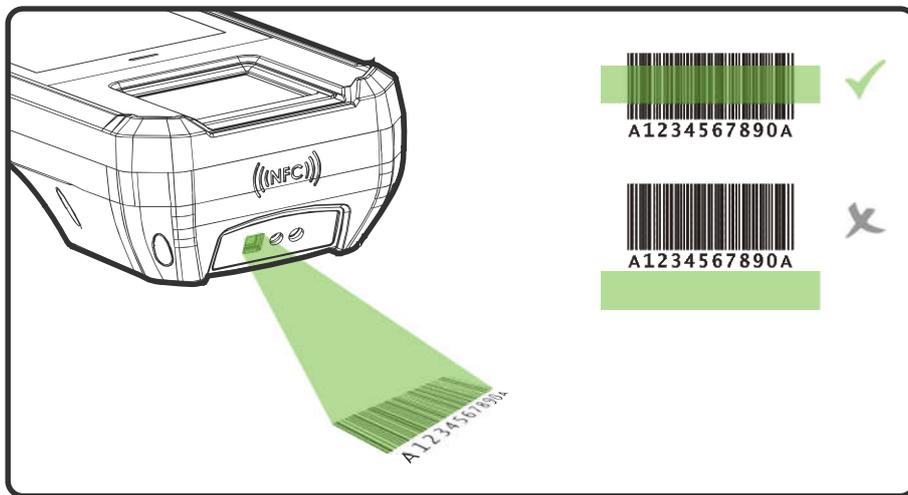
- *The barcode scanner is a sub-miniature area imager engine optimized for barcode reading. The engine captures digital images of a barcode for transmission to a decoder to decode a 1D or 2D barcode of any format supported by the decoding software. The scanner includes an LED aiming system, and an LED illumination system. Please select your preferred image capture preferences and parameters.*

NFC scanner

The contactless card reader (NFC/RFID Scanner) is located on the front of the **Chameleon 5R Dual** device, between the barcode scanner and fingerprint sensor, as indicated on image below:
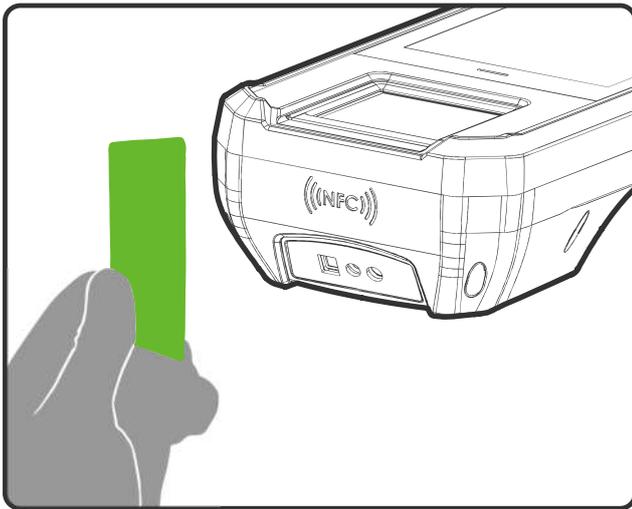
The contactless card reader (NFC/RFID Scanner) is located on the rear of the **Chameleon 5R Single** device, just above the rear camera section, as indicated on image below:
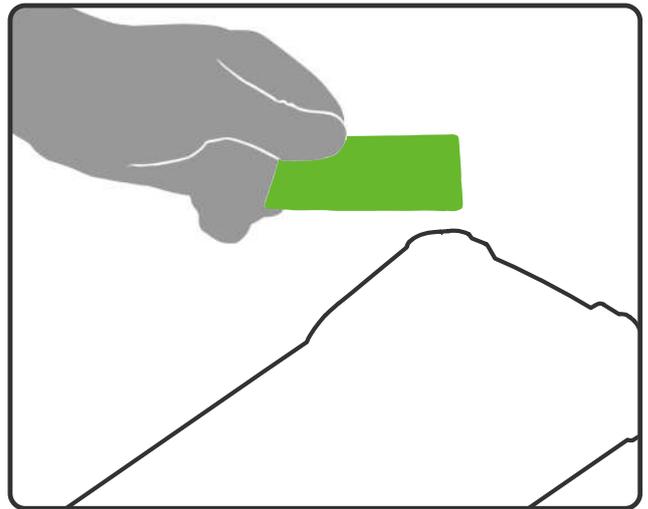

■ *Simply hover your smart card within 20mm over this NFC marked section for instant scanning*

Touch screen

The Chameleon 5R display panel with high brightness and high contrast is visible under strong sunlight or in outdoor environments. Avoid direct sunlight when possible to avoid overheating. Your tablet screen is tough and scratch-resistant, but the direct impact of sharp objects and abrasive materials could cause damage and leave marks. Always handle with care.

Single   Dual
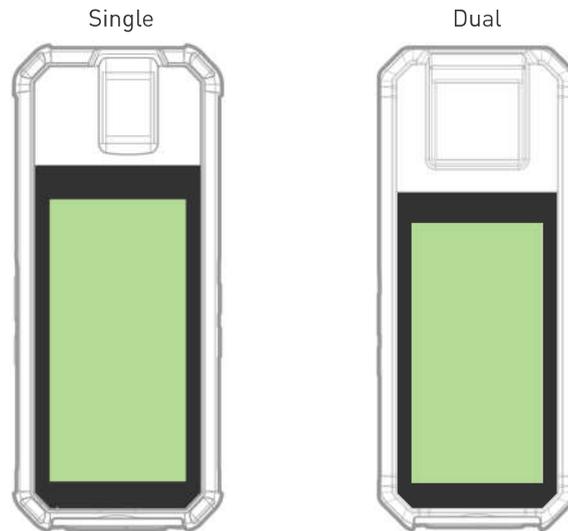
■ *Keep the device display clean by using a soft, lint-free cloth. Use a damp microfiber cloth to take care of fingerprints, grime, and stubborn stains. Once all the stains are removed, wipe the screen again with a dry microfiber cloth. Always turn your device off before cleaning it. Never spray or drip cleaning liquid directly on the screen. Never use harsh chemicals. Never use abrasive cloths or paper towels. Use a cotton swab to pick up dust and grime from the rim of your screen.*

Touch screen

Your handheld device has a 5.7" capacitive multi-touch display. You can touch the screen to operate the device.

Basic Touch Screen Gestures:

Gesture	Gesture Action	Function
Single tap -		■ Select items on the screen, including options, entries, images, and icons ■ Touch buttons on the screen ■ Input text using the on-screen keyboard
Double tap -		■ Open or start application
Touch and hold -		■ Display detailed information about an item ■ Open the context menu of an item to perform further actions
Drag and drop -		■ Move item, such as images and icons on the screen
Swipe and slide -		■ Scroll through the Start screen, web pages, lists, entries, photos, contacts, etc. ■ Close an application (Swipe the application to the bottom of the display)

| Gesture	Gesture Action	Function
Zoom in -		■ *Enlarge the view of an image or web page*
Zoom out -		■ *Reduce the view of an image or web page*
Rotate -		■ *Rotate an object by 90 degrees*

Right-click

To perform a right-click on your device, Touch and hold your finger for 2 seconds on any section of the screen or an icon and then release your finger.

2 seconds
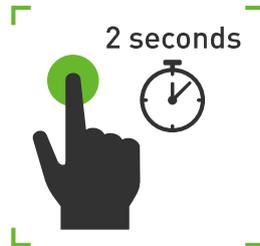
Front camera & light

The front auto-focus camera and LED light is located on the top right side of the touch screen.

Both the camera and light can be activated via the software on the device. Be sure to keep the device stable and wait for the camera to properly focus before taking a photo. Always keep the lens area clean and avoid scratches.

Camera LED

13MP Camera

Front Camera
& Light
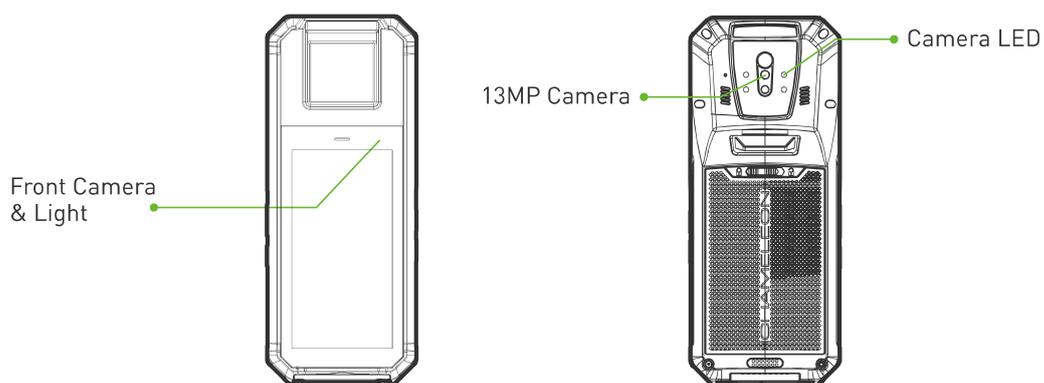
Rear camera & lights

The rear auto-focus camera and unique LED light system is located in the center-top part, on the back of the device.

Both the camera and lights can be activated and controlled via the software on the device. Be sure to keep the device stable and wait for the camera to properly focus before taking a photo. Always keep the lens area clean and avoid scratches.

Document authentication

UV Light

5MP IR Camera

IR LED
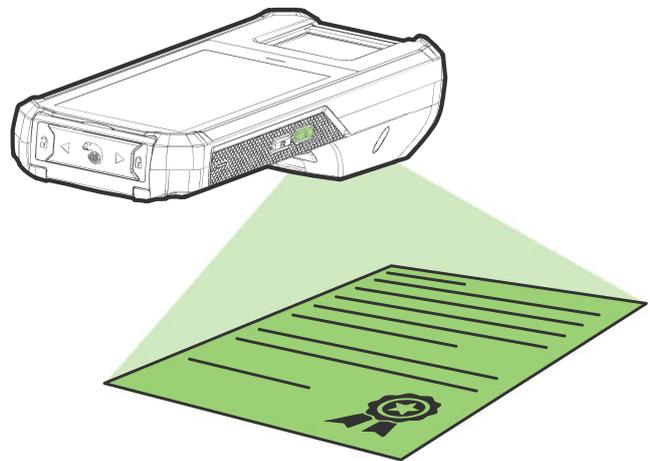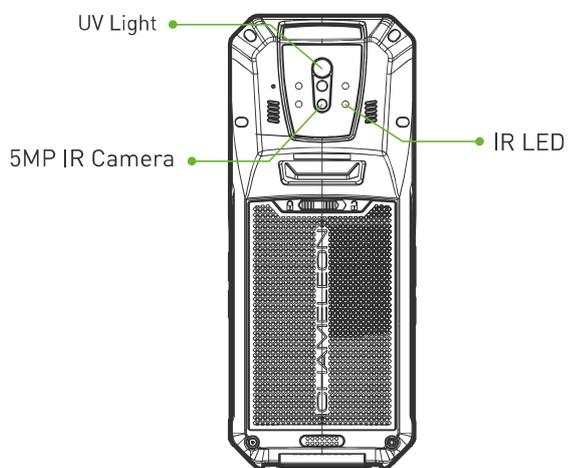
A 5MP IR Camera and lighting system can be used to authenticate and verify encrypted documents, passports and ID cards. Together with the appropriate software, the user can now easily detect falsified and tampered documents.

Fingerprint scanner - Single

The Chameleon 5R Single comes equipped with a FBI-certified FAP20 or FAP30 optical fingerprint scanner which can capture high quality single fingerprints.
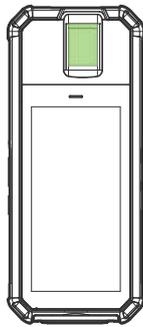
■ *The fingerprint sensor is software activated. Simply push down on the capture window with the last joint of the finger. Do not use excessive force. Always keep the capture window clean.*
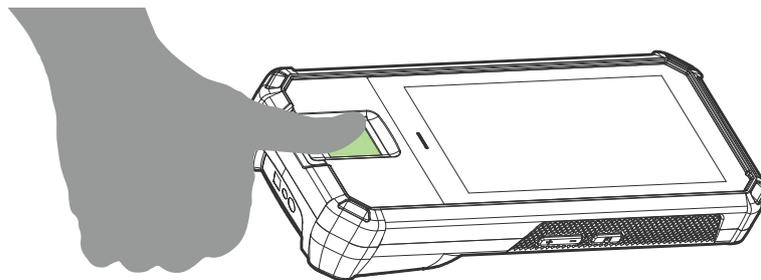
Fingerprint scanner - Dual

The Chameleon 5R Dual comes equipped with a dual LES fingerprint scanner which can capture dual flat prints and single finger rolled prints. Each fingerprint scanner is Mobile ID IQS FAP45, PIV, GSA FIPS201, FBI Appendix F certified to ensure fast high quality image capture.


■ *The fingerprint sensor is software activated. Simply push down on the capture window with the last joint of the finger while touching the metal frame of the scanner. Do not use excessive force. Always keep the capture window clean.*
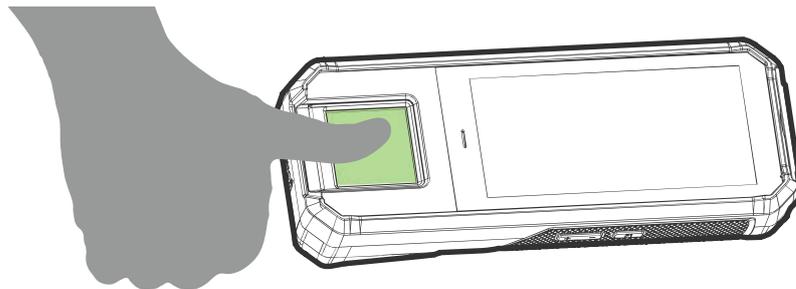
Digital signature pen (stylus)

A digital signature pen (stylus) is included with the Chameleon 5R device. This pen can be used in combination with the touch screen to capture accurate high quality signatures electronically. A dedicated software application will create a signature window on the tablet display panel, allowing the applicant to sign on the screen. Do not use excessive force and replace the stylus battery when needed.

Lanyard

Eraser Button
Hold down button to erase digital lines

Primary Button
Click to select and hold down to activate sub-windows

Removable End Cap

Tip

■ *Replacing the Stylus Battery*
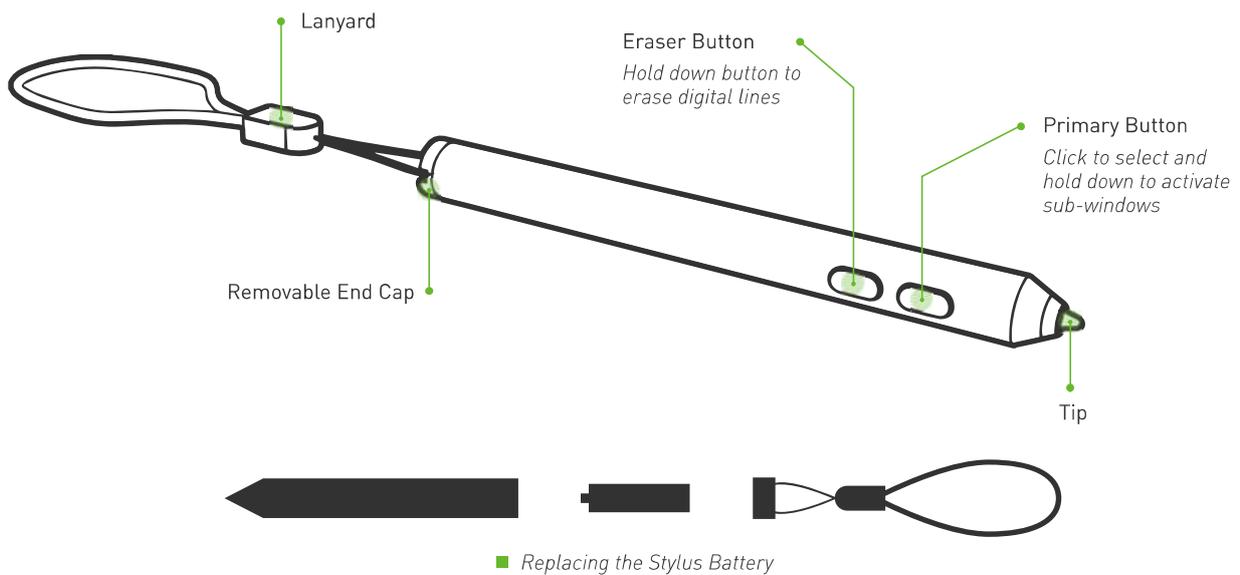
Power adaptor

The detachable main power supply adaptor will connect to the DC Charge port on the Chameleon device, and it can be used to supply power directly to the device, or to charge the device battery. The battery charging starts automatically.

LED Indicator
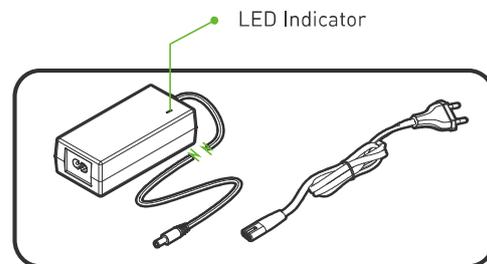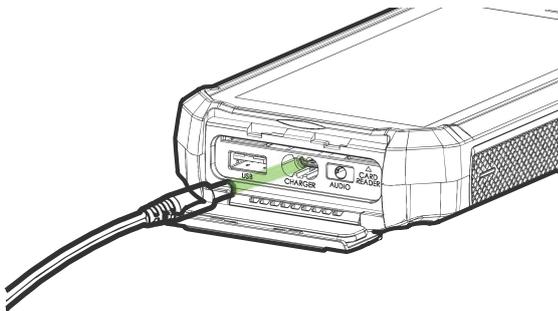
■ *Green LED will light up when connected to AC power*

CAUTION:

- When using the Chameleon 5R device for the first time, do not connect any peripheral device except the supplied battery and AC adapter.
- When handling the power (AC) adapter problems such as sudden voltage drops may arise during periods of thunder and lightning. Try to avoid using the power adaptor during these periods.
- When the DC plug is not connected to the unit, disconnect the AC cord from your electrical outlet. Power is consumed simply by having the AC adapter plugged into an electric outlet.
- Always hold the plug head when you unplug the connector, and never pull out the cord.
- The AC adapter is designed for use with your device only. Connecting the AC adapter to another device can damage the adapter.

Power adaptor

The power (AC) adapter operates on any voltage in the range of 100~240 V AC. The AC adapter serves as a converter from AC (Alternating Current) to DC (Direct Current) power because the device runs on DC power input, but an electrical outlet usually provides AC power.

INPUT: 100-240V ~ 50/60Hz
OUTPUT: 5.0VDC / 2.0A

This device complies with part 15 of the FCC rules.
Operation is subject to the following conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received,
    including interference that may cause undesired operation

Note: Do not charge the battery when temperatures fall below 0°C or is above 45°C (below 32°F or above 113°F), as it may cause safety issues. Recharging the battery must only be carried out in a non-hazardous area using the supplied AC adapter.

This power adapter is for indoor use only!

Basic operation

*Note: that the most basic operation instructions are based on the Android 7.1 operating system.*
Should you use an alternative operating system, please contact the appropriate supplier for operating instructions.
Modifying the device's operating system, or installing software from unofficial sources, may result in device malfunctions and data corruption or loss. These actions are violations of your Chameleon 5R license agreement and will void your warranty.

■ Turn device ON

Power On

■ Step 1: Press and hold down the power ON/OFF button located on the right side of the device for at least 3 seconds and release to power on the unit.

■ Step 2: The Chameleon logo will appear on the display.

■ Step 3: The battery status button will illuminate blue or flash green/red/orange depending on the battery and charging status of device. (please see "LED charge/power indicator" section of this manual for details-page 35)

■ Step 4: Please be patient and give the device a few minutes to start up completely before activating any software programs.

Power ON/OFF button

LED Battery Status Indicator
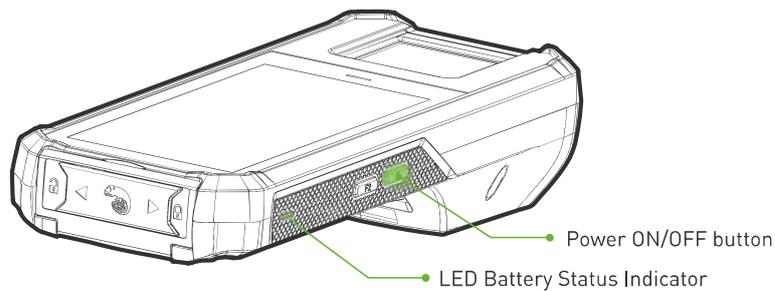
■ Turn device OFF

Power Off

■ Step 1: Press and hold down the power ON/OFF button located on the right side of the device until the "Device Options" dialog box appears on the screen

■ Step 2: Tap "Power Off" in the dialog window. The device will shut down

Caution: if you have to turn the tablet PC on again immediately after turning it off, wait for at least 5 seconds. Turning the tablet off and on rapidly can damage it.

■ LED charge/power indicator

Battery status level:

When the Chameleon 5R unit is powered off, the user can press the power button for 1 second and release.
This will initiate a cycle to establish the battery level status of the device. The status level will be active for 10 seconds only. When the Chameleon 5R unit is powered on, the battery status level LED will be on display constantly.

See details of this battery level status below:

0-10% Battery Power = RED pulsing (critically low status)

11-40% Battery Power = RED

41-80% Battery Power = ORANGE

81-100% Battery Power = GREEN

When the charging device (power adaptor) is connected, the battery status level LED will be pulsing indicating that the unit is being charged.

Note: a red and green pulsating indicator LED will indicate a charge problem or battery error.

Cleaning device

Turn off your device. Disconnect any attached devices, headphones, speakers, and the keyboard dock from the tablet, and from their electrical outlets.

Use a soft microfiber cloth (as provided) moistened with water or a non-alkaline detergent to wipe the exterior of the tablet. Do not allow water from the cloth to seep down to the tablet ports when doors are open.

Gently wipe the display with a soft, lint-free microfiber cloth. Do not use alcohol or detergent on the display.

Regulatory Information

Marking labels located on the exterior of your device and packaging indicate the regulations that your model complies with. Please check the marking labels and refer to the corresponding statements below. For further product conformity declaration details please contact your local Chameleon agent or visit www.chameleonbiometrics.com

CE Marking	$C \epsilon$	CE-RED. This device is in compliance with the essential safety requirements and other relevant provisions set out in the European Directive. • EN301489-1/3/17/52 EN300 328 EN301908-1/2 EN30189 3 EN301511 EN50360 ENS 0566 EN62209-1/2 EN62479 EN62368-1 EN303413 IEC62321
FCC	FC	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes not expressly approved by the manufacturer could void the user's authority to operate the equipment.
RoHS	✓RoHS	Refers to EU legislation restricting the use of hazardous substances in electrical and electronic equipment (EEE) and promoting the collection and recycling of such equipment (since February 2003). Waste EEE poses environmental and health risks if inadequately treated.

WEEE		Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.
ISO		ISO 9001:2015. This product is manufactured by an organization that meets the international standards to consistently provide products and services that meet customer and regulatory requirements.
IP65		This product was independently tested and awarded the international standard IP65 (EN 60529) protective rating. IP65 Enclosure - IP rated as "dust tight" and protected against water projected from a nozzle.
MIL810G		This product was independently tested and awarded the MIL810G certification.

Technical Specifications

Technical Specifications	
Operating System	Android™ 7.1
Processor	Qualcomm® Snapdragon™ MSM8953, 64-bit, Up to 2.0 GHz Octa-core CPU (8x ARM Cortex A5)
Internal Memory	4GB RAM (DDR3) 64GB ROM (EMMC4.51)
Display	5.7" 10-Point G+G Capacitive Multi-Touch LCD Display Corning Antiglare Glass, Sunlight Readable Resolution: 2160x1080 Pixels
Cellular Connectivity	3G/4G Modem LTE-FDD/LTE-TDD/ WCDMA
External Connection Ports	1 x USB3.0 Type A 1 x Fast Charing Port (OTG Function) 1 X Audio Port (Supports 3.5mm Headphone Jack) 1 x Micro SD (Max Support 128Gb) 2 X Micro SIM 1 x Micro SAM
IR Camera	Document Authentication and Verification
Wi-Fi	IEEE 802.11 a/b/g/n/ac
Bluetooth	Bluetooth 4.0
LAN	Dedicated Ethernet port @ 1GB per second
GPS	GPS(GNSS) and GLONASS Receiver Accuracy within 5m

Technical Specifications	
Front Camera	Integrated 8.0 mega pixels with light
Back Camera & Light System	Back Camera: integrated 13.0 mega pixels, auto focus Back flash (2x White LED's) with adjustable intensity Light System, UV LED light 365nm IR Camera: 5MP with 2xIR LED's 850nm
Contactless Card Reader	Multiple RFID Smart Card & NFC Supported – Works with all the major ISO14443A/B, FeliCa cards and compatible with NFC ISO18092 P2P to work with mobile devices and tags Advanced Secure - Read Write Mifare Plus, DESFire EV1 by DES/3DES/AES 128-bit algorithm with embedded 2 SAM slots (ISO7816, T=0,T=1)
Barcode Scanner	Laser 1D & 2D Barcode Scanner Proprietary CMOS sensor with global shutter 844 x 640 pixel resolution with Decode Capability High performance scan rate 100 scans/sec with Decode
Contact Card Reader	Supports ISO 7816 –Class A, B and C EMV Level 1, EN60950/IEC 60950, Microsoft® WHQL Supports T=0 , T=1 Protocols CAC Smart Cards supported
Sensors	G-Sensor / Light Sensor / Proximity Sensor
Contact Card Reader	Supports ISO 7816 – Class A, B and C (5V, 3V, 1.8V) cards CAC (Common Access Cards) & memory cards supported Supports microprocessor cards with T=0 , T=1 protocols EMV Level 1, EN60950/IEC 60950, PPS, FIPS 201 and Microsoft® WHQL compliant

Technical Specifications	
Audio	2 x Waterproof 1W stereo speakers, 2 x Internal microphones
Protective Casing	Rugged waterproof / dustproof / shockproof casing IP65 rated & MIL 810G certified
Hand Strap	Rugged nylon hand straps
Battery	1 x removable, rechargeable lithium-polymer 7100mAH / 3.85V smart battery Approx. 9 hours operating time
Power Adaptor	Input: 100-240VAC 50/60Hz Output: 5VDC 2A
Dimensions	Single: 225mm x 98mm x 36mm Dual: 241mm x 98mm x 55mm
Weight	Single: Approx. 690g Dual: Approx. 740g
Fingerprint Scanner	Single: Optical FAP20 or FAP30 Fingerprint Sensor / FBI PIV/FIPS201 and FBI Mobile ID / FAP20 Certified / 500PPI Resolution / Live Fingerprint Detection (LFD) Technology / Captures wet and dry fingerprints **— Dual:** Dual flat print and single finger roll scan using LES (Light Emitting Sensor) Technology / Mobile ID IQS FAP 45, PIV, GSA FIPS 201, FBI Appendix F Certified / Captures both rolled and flat fingerprints / Surface Durability: MIL-C-675c 4.5010, MIL-STD-810F / Surface Resistance Ammonia, IPA, Methanol, etc. / Latent prints are not recognized, excellent with dry and dirty fingers / Can perform scans in indirect/direct sunlight, and performs all requirements common in Ten Print enrollment applications

Technical Specifications	
LED Status Indicator	Multi-function status LED indicator (indicates battery and charging status of device) Ideal for large scale charging environments

Environmental Conditions		Operating conditions:	Storage:
	Temperature	-10°C ~ +50°C	-20°C ~ +60°C
	Humidity (non-condensing)	10% < RH < 90%	5% < RH < 95%

Certification	FCC, CE, RoHS, IP65, MIL810G

Accessories	
Stylus (Digital Signature Pen)	1024 pen pressure levels, 0.5mm hovering height 133pps pen digitizer rate with an active force between 20g & 500g
Custom EVA Hard Shell Case	EVA hard shell carry case for Chameleon device & power adaptor Soft internal padding and zipper Durable, portable, dustproof and water resistant. Includes hand carry strap. Dimensions: 280mm x 140mm x 85mm.
Docking & Battery Charging Station	Compact combination single battery and device charging station Able to rapidly charge both the Chameleon 5R device and battery similtaniously LED display panel. Dimensions: 158mm x 115mm x 62mm
Spare Battery	Official Chameleon rechargeable lithium-ion polymer 7100mAH / 3.85V smart battery Approx. 9 hours regular use operating time (when fully charged)

*We provide a free SDK/API to support all your development needs.
This device also fully supports multi-language options.

*Design & Specification subject to change without notice

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party.

Responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

TheThis Communicator meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. FCC RF Exposure Information and Statement the SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: Communicator has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of the phone kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain an 0mm separation distance between the user's body andthe back of the phone. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.The use of belt lUse only the supplied or an approved antenna.

www.chameleonbiometrics.com