



## Military Grade Rugged Android Smartphone

### Slim, Lightweight with Integrated High-Accuracy GNSS

The ST454CL Military-grade Rugged Smartphone is compact in design and features a high-definition 4.0 inch Screen multi-touch panel that can be operated with gloves and wet hands, a Qualcomm Snapdragon Quad-core processor and Android 5.1 operating system. This IoT device also includes 1D scanning, 2D scanning, NFC, UHF, PSAM card, etc.

Waterproof and dustproof (IP68), and encompassing Corning Gorilla Glass, the ST454C has been tested to withstand a 1.5 metre drop and 300 times 1 meter tumbling test performance, whilst still being aesthetically pleasing and easy to handle.



### Features

- Qualcomm Snapdragon processor Quad-Core 1.1 GHz
- 2GB RAM + 16GB ROM
- Android 5.1
- 4.0 inch WVGA, Resolution 800x480
- Industrial capacitive touch panel
- 8.0 Mega Pixel rear camera, auto focus, support LED fill light
- Removable 3.8V/4100mAh battery
- Micro USB 2.0, support OTG
- 4G / Bluetooth / Wi-Fi (2.4G) / GPS
- 1D barcode, 2D barcode, NFC, UHF
- Dimension: 170 x 73 x 20.5 mm (L x W x H)

### Major Options

- 2D barcode scanner; reads 1D also (ST301T-TR and ST301X-TR)
- Long-range Bluetooth, ideal for connecting to Total Station controllers (ST372AP-TR and ST301X-TR)
- cameras, 4G LTE
- 3D back camera, back camera light (ST301X-TR)

# Specifications



<b>Model</b>	<b>ST454CL</b>
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## Physical

Size	170 × 73 × 20.5 mm (length × width × height)
Weight	11 ounce/315g (including battery)
Operating System	Android 5.1
Display	4" high-res IPS, 800*400 DPI, 5 points-touch screen, Corning Gorilla Glass, LED backlight
Battery	Li-polymer, 4100mAh. Uptime: 8 hours. Standby time: 280 hours
Card Slots	1 SIM, 2 PSAM, 1 Micro SD (Maximum 32G)
Communication Interface	Micro USB 2.0, OTG
Networks	4, Wi-Fi, GPRS, Bluetooth, GPS
Notifications	Warning tone, Multi-colour LED, Vibration
Keyboard	On-screen keyboard and Enterprise keyboard
Audio	Microphone, Loudspeaker, Receiver
Buttons	2 programmable buttons (F1, F2); 3 scanning buttons, 1 delete/back/enter/TAB/1/A button
Power Adaptor	Input: 100-240V, 50/60HZ 300mA. Output: 5V, 2A

## System

Processor	Cortex-A7 Qualcomm Quad-core, 1.1GHz
Memory	2GB RAM/16GB ROM
Operating System	Android 5.1
Display	4" high-resolution IPS, 800*400 DPI, 5 points-touch screen; Corning Gorilla Glass

## Mechanical & Environmental

Operating Temp.	-4°F to 122°F/-20°C to 50°C
Humidity	5% to 85% (non-condensation)
Drop Specification	Multiple drops from 5 feet / 1.5 m height onto concrete ground
Roll Specification	500 1.6 feet/0.5 m rolls
Vibration	4g SPK Sine (5Hz to 2KHz); 0.04g2/Hz random (20Hz to 2KHz) 60 minutes per axle, 3 axles
Thermal shock	-40°F to 140°F/-20°C to 60°C
Electrostatic	+/- 10kv air discharge; +/-8kv contact electricity
Ingress Protection	IP68

## Wireless Communication

WWAN	GSM/GPRS/WCDMA/CDMA/TD-SCDMA/TDD-LTE/FDD-LTE
Wi-Fi	IEEE 802.11b/g/n; Wi-Fi™ attestation; IPv4, Ipv6
Operating System	GPS + BDS
Bluetooth	Bluetooth Wideband, supporting HFPv1.6; Bluetooth v4.1 Low Energy (LE)

## IOT function (Barcode, RFID)

1D Scanning Module	Honeywell N4313
Supported 1D barcodes	China Post (Hong Kong 2 of 5), Codabar, Code 11, Code 128, Code 32 Pharmaceutical (PARAF), Code 39, Code 93, EAN/JAN-13, EAN/JAN-8, GS1 DataBar Expanded, GS1 DataBar Limited, GS1 DataBar Omnidirectional, GS1 Emulation, GS1-128, Interleaved 2 of 5, ISBT 128, Matrix 2 of 5, MSI, NEC 2 of 5, Plessey Code, Postal Codes, Straight 2 of 5 IATA, Straight 2 of 5 Industrial, Telepen, Trioptic Code, UPC-A, UPC-A/EAN-13 with Extended coupon Code, UPC-E0
2D Scanning Module	Honeywell N3680
Supported 1D barcodes	Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data bar
Supported 2D barcodes	2D Stacked: Codablock A, Codablock F, DF417, MicroPDF417 2D Matrix: Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible(Han Xin) code
Camera	Rear camera: 8 MP, auto-focusing, supporting LED lighting and flashlight .
NFC	Operating frequency: 13.56MHz Protocol: Mifare Classic (MF1), NDEF, NfcV(15693), Ultralight (MF0), IsoDep (standard CPU MF3), IsoDep (CPU) Reading distance: 0-5cm (depending on the label and antenna)
RFID	Operating frequency: 840-960Mhz Support protocol: ISO18000-6C/EPC C1G2 Reading distance: 1.1m (depending on the label and antenna)
PSAM	Supports ISO7816 standard, 2 PSAM cards
Sensor	Light sensor, distance sensor, gravity acceleration sensor, geomagnetic transmission sensor, hall sensor (optional)

## Others

Certification	CE/CCC/UN38.3/RoHS/IP68
Accessories	Charger/USB cable/ battery/wrist strap
Optional Accessories	Triple desktop charger/ triple adaptor/ battery

\* Specifications subject to change without notice.

