Mobile NFC Smartphone Solution

*Mobilise your workforce and your processes*

The HealthRFID Smartphone solution is a state-of-the-art tracking and tracing solution making use of the near-field-communication functionalities of modern smartphones. The HealthRFID Android application is required and fully supports the handling of RFID tagged specimen or blood bags.

- Low cost solution to track and trace single items
- No line of sight required - just tap and go
- Intuitive - Lightweight - Accurate
- One device for many purposes

**User Interface**

- Smartphone colour touch screen
- Intention Specific and uncluttered
- Minimal User Training Needed

**RFID tags**

- Standard HF (13.56 MHz)
- ISO 15693 compliant

**Connectivity**

- Wireless 4G or 3G
- WiFi
- Bluetooth

**Standard Phones**

NFC equipped

- Runs on Android
- Smartphones certified for use by HealthRFID
- HTC One M8
- Samsung S3 and S4 mini

**Ruggedized Handheld Device**

- Ip64
- 2G/3G/UMTS
- 4 inch capacitive touchscreen
- Bluetooth
- WiFi
- NFC
- Powerful battery, docking station (optional)
- Carrying case (optional)
- Pistol handle (optional)

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www.healthrfid.com
## Physical Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>153mm x 75mm x 29mm / 6.02 x 2.95 x 1.14in</td>
</tr>
<tr>
<td>Weight</td>
<td>286g / 10.09oz</td>
</tr>
<tr>
<td>Touch Panel</td>
<td>Capacitive touch panel</td>
</tr>
<tr>
<td>Power</td>
<td>Main battery: Li-ion, 3200mAh / Li-ion, 5200mAh (Optional)</td>
</tr>
<tr>
<td>Expansion Slot</td>
<td>1 PSAM, 1 SIM, 1 MicroSD (TF) slot</td>
</tr>
<tr>
<td>Audio</td>
<td>0.5W speaker, build-in microphone</td>
</tr>
<tr>
<td>Keypad</td>
<td>4 TP touch key-press buttons</td>
</tr>
<tr>
<td>Sensors</td>
<td>Light Sensor, Proximity Sensor</td>
</tr>
</tbody>
</table>

## Performance

### CPU
- Cortex-A7 1.3GHz quad-core

### RAM
- 1GB

### ROM
- 4GB

### Expansion
- Supports up to 32GB Micro SD card

## Developing Environment

### Operating System
- Android 4.4.2

### SDK
- Chainway Software Development Kit

### Language
- Java

### Tool
- Eclipse / Android Studio

## User Environment

### Operating Temp.
- 14°F to 122°F / -10°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
- 1.2m drops to concrete across the operating temperature range

### Tumble Specification
- 6.02 x 2.95 x 1.14in

### Sealing
- IP64

## Communication

### WLAN
- IEEE802.11 b/g/n

### WWAN
- GSM/GPRS/EDGE Quad Band
- (850/900/1800/1900MHz)
- WCDMA (850/900/2100MHz)

### Bluetooth
- Bluetooth 4.0

### GPS
- GPS, AGPS

## Biometric (Optional)

### Functions
- Enrollment, compare, deletion etc.

### Sensor
- TCS235

### Sensor Type
- Capacitive Sensor

### Resolution
- 508DPI

### Memory
- 1,000 PCS fingerprints

## InfraRed (Optional)

### Wavelength
- 940nm

### Frequency
- 38KHz

### Range
- > 4m

### Protocol
- DLT_645-2007

## Barcode Scanning (Optional)

### 1D Linear Scanner
- Symbol SE965

### 1D Laser / CCD
- UPC/EAN, Code128, Code39, Code93, Code11,
  Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5,
  Codabar, MSI, RSS, etc.

### 2D Imager Scanner
- Symbol SE4750

## RFID (Optional)

### LF
- Frequency: 125KHz, 134KHz (FDX-B / HDX)
- Protocols: ISO11784/5, ISO18000-2
- Chips: R/O ID card, eg EM4410/4200, TK4100
- R/W ID card, eg EM4405/HITAG S
- Range: 3.8cm
- LF (with external antenna)
  - Frequency: 13.468MHz (FDX-B+HDX)
  - Protocols: ISO11784/5
  - Chips: Animal tags
  - Others for customization
  - Range: 3-12cm, external antenna
  - 3.20cm, with a 75cm extension antenna

### HF
- Frequency: 13.56MHz
- Protocols: ISO14443A/B, ISO15693
- Chips: M1 card (SSO/570), M0 (UltraLight),
  M3 (Desfire D40/D41/D81), CPU_A card
  CPU_B card
- ICODE II, ICODE2, ICODE16K
- Others for customization
- Range: 3-8cm

### NFC
- Frequency: 13.56MHz
- Protocols: ISO/IEC 18092 (ECMA 340)
- ISO/IEC 21481 (ECMA 352)
- Range: 2-4cm

* For the UHF specifications, please check C4000 UHF specification sheet

## Other Modules (Optional)

### Camera
- 8MP autofocus camera with flash

### PSAM
- ISO7816 Protocol, 1 PSAM slot

### Accessories

- AC Adapter
- Snap-on
- USB cable
- Cradle (Optional)
- Pistol (Optional)
- Fingerprint Snap-on (Optional)
- Carrying case (Optional)