FPC1150 Touch Fingerprint Sensor

Product Sheet

- Elongated-shaped sensor for front or rear-mounted integration
- Intelligent programmable wake up functionality
- Revolutionary 3D image quality
- Enriched handling of wet and dry fingers
- Optimal combination of sensor size and performance
- Customization of sensor possible including color options
- Compact and easy to integrate
- Robust protective coating withstands more than 10 million finger placements

FPC1150 customized algorithm

The most advanced algorithm to date including:
- Feature-space augmentation and statistical representation
- Hybrid and multi-template matching
- Impairment correction
- Improved sampling and combining
- Intelligent enrolment and enrolment combining
- Resolution enhancement

Front-mounted  Rear-mounted  Navigation  Unlock

WWW.FINGERPRINTS.COM
General description

The FPC1150 is a miniature touch fingerprint sensor with ultra-low power consumption, which is suited for front or rear-mounted button integration with navigation. The elongated form allows 360-degree rotation of the finger and unrivaled sensitivity that enables maximum performance without compromising on design aesthetics or user experience. FPC1150 offers excellent 3D pixel sensing technology that reads virtually any finger: dry or wet. With a protective surface coating, it is capable of more than 10 million finger placements and withstanding daily wear-and-tear. Touch sensor technology combined with the small size of FPC1150 offers secure and convenient user verification, while Guided Enrolment software increases the accuracy of captured images for an improved user experience.

Recommended host system specifications for Android integration:
- Android version: 4.4, support for future Android versions will be added continuously
- CPU: Cortex A15 or equivalent @2.3GHz with floating-point and NEON extensions enabled
- CPU (minimum): CortexA7 or equivalent @ 1.3GHz with floating-point extensions enabled
- RAM: 8MB during enroll and fingerprint verification

Quick reference data – Touch Fingerprints Sensor FPC1150

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>DESCRIPTION</th>
<th>VALUE</th>
<th>UNIT</th>
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<tbody>
<tr>
<td>Interface</td>
<td>SPI</td>
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<td>pin</td>
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<tr>
<td>Supply voltage</td>
<td>VDD</td>
<td>1.8</td>
<td>V</td>
</tr>
<tr>
<td>Supply current</td>
<td>Image capture</td>
<td>&lt; 6</td>
<td>mA</td>
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<tr>
<td>Supply current Sleep Mode</td>
<td>With finger detection</td>
<td>&lt; 6</td>
<td>µA</td>
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<tr>
<td>Supply current Deep Sleep</td>
<td>Typical</td>
<td>&lt; 0.5</td>
<td>µA</td>
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<td>ESD protection</td>
<td>IEC61000-4-2, level X, air</td>
<td>±30</td>
<td>kV</td>
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<tr>
<td>Wear-and-tear</td>
<td>Finger placements</td>
<td>&gt;10 million</td>
<td>times</td>
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<tr>
<td>Operating temperature</td>
<td></td>
<td>~ 40 to +85</td>
<td>°C</td>
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</table>

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