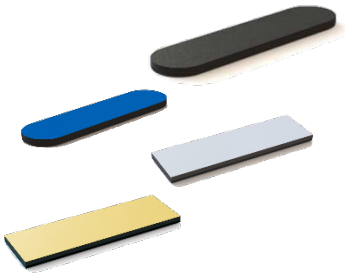
FINGERPRINTS

FPC1145 Touch Fingerprint Sensor

Product Sheet

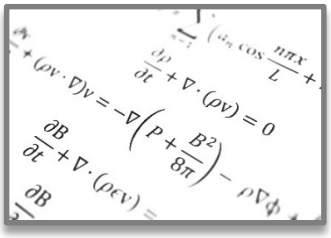
- Elongated form factor recommended for front, rear or side-mounted integration in mobile phones
- Optimal combination of sensor size and performance
- Customization of sensor module possible
- Compact and easy to integrate
- Outstanding system performance
- Robust protective coating capable of more than 10 million finger placements
- Intelligent programmable wake up functionality
- Flexible design with different outlines
- Customizable designs including color options
- Bezel optional



FPC1145 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

Side-mounted

Navigation

FINGERPRINTS

General description

FPC1145 is an evolution of FPC1140, providing increased performance and flexibility, which is suited for front or rear-mounted and recommended for side-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. FPC1145 offers excellent 3D pixel sensing technology that reads virtually any finger: dry or wet. With a robust 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 FPC1145 offers secure and convenient user verification, while a Guided Enrolment software increases the accuracy of captured images for an improved user experience.

Recommended host system spec for Android integration:

- Android version: 5.0, 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 Fingerprint Sensor FPC1145

PARAMETER	DESCRIPTION	VALUE	UNIT
Interface	SPI	4	pin
Supply voltage	VDD voltage, typical	1.8	V
Supply current	Image capture, typical	5	mA
Supply current Sleep Mode	Typical (with finger detection)	6	µA
ESD protection	IEC61000-4-2, level X , air	±30	kV
Wear-and-tear	No of wear cycles at 0.6N	>10 million	times
Operating temperature		-40 to +85	^{o}C

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