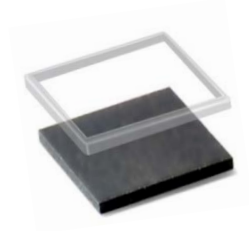




FPC1021 Touch Fingerprint Sensor

Product Sheet

- Complete fingerprint sensor module. No external components
- Excellent 3D image quality
- Thin, compact and easy to integrate including navigation function
- Robust protective coating capable of more than 10 million finger placements
- Excellent balanced between size and biometric performance
- Compact and easy to integrate



FPC1021AP

- LGA component only requires five passive components.
- Possible for module companies to design custom module with custom bezel and flex
- FPC1020AP available as tape 'n reel or tray
- Available in different colors



Security Applications



Time & Attendance



Computer Peripherals



Wireless Devices



FINGERPRINTS

General description

With extensive experiences from fifteen years of touch fingerprint sensor deployments and patented capacitive sensor technology, FPC1021 is primed for FIDO and Global Platform compliance. This biometric product consists of touch fingerprint sensor FPC1021 and fingerprint recognition algorithm optimized for integration into consumer electronics such as mobile phones and tablets.

Compact size and ultra-low power consumption makes it very attractive to use in battery-powered units. Fingerprint image data captured in three dimensions (3D), delivers superior image quality at 508 dpi

resolution. The fingerprint recognition algorithm is top ranked in independent tests and together with the touch fingerprint sensor FPC1021; it performs fast fingerprint matching with highest security level and optimal user convenience.

The FPC1021 comes with different software configurations, one dedicated for Android products targeting mobile phones and tablets including all necessary software. It also comes with a version for Windows Biometrics Framework (WBF) for laptop consumer products. FPC1021 is also available for other embedded environments.

Recommended host system spec for Android integration:

- Android version: 4.3 or 4.4, support for future Android versions will be added continuously
- CPU (minimum): CortexA7 or equivalent @ 1.3GHz with floating-point extensions enabled
- CPU (recommended): Cortex A15 or equivalent @2.3GHz with floating-point and NEON extensions enabled
- RAM: 8MB during enroll and fingerprint verification

Quick reference data – Touch Fingerprint Sensor FPC1021

PARAMETER	DESCRIPTION	VALUE	UNIT
Interface	SPI	4+1	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
Pixel matrix	508dpi resolution	160 x 160	pixels
ESD protection	IEC61000-4-2, level X , air discharge	±30	kV
Wear-and-tear	No of wear cycles at 0.6N	>10 million	times
Operating temperature		-40 to +85	°C

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