

FPC1011F1 Area Sensor Package

Product Sheet



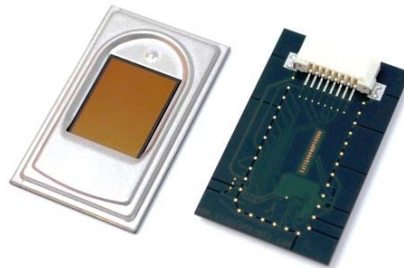
FINGERPRINTS

Features

- Fingerprint area sensor
- NEW hard and scratch resistant protective surface coating
- Superior image quality
- 3D image with 256 true gray scale values
- Ergonomic frame for optimized finger guidance
- High speed SPI interface
- Flex film connector
- 3.3 and 2.5 volt operation
- >15kV ESD protection
- >1 million wear cycles

RoHS Compliant
Directive 2002/95/EC

LEAD FREE



Application examples

- Computer peripheral
- Physical access control
- Time and attendance
- Wireless devices
- Security application
- Medical equipment & storage

General description

FPC1011F1 is a new compact CMOS fingerprint sensor with several significant advantages. FPC1011F1 delivers superior image quality, with 256 gray scale values in every single pixel. The reflective measurement method sends an electrical signal via the frame directly into the finger. This technique enables the use of an unbeatably hard and thick protective surface coating. The sensor with its 3D pixel sensing technology can read virtually any finger; dry or wet.

Thanks to the new hard and durable surface coating, FPC1011F1 is protected against ESD well above 15 kV, as well as scratches, impact and everyday wear-and-tear. FPC1011F1 is delivered with a designed micro-ergonomic guidance frame, simplifying proper fingerprint guidance and hence improving algorithm performance. In higher volumes, the micro-ergonomic frame can be made available in different colors and textures.

FPC1011F1 is provided with a versatile flex film connector, supporting a high speed serial SPI interface.

Quick reference data

PARAMETER	DESCRIPTION	VALUE	UNIT
Dimension	Sensor body (W x L x T), nominal	20.4 x 33.4 x 2.3	mm
Interface	Serial SPI	8	pin
Supply voltage	VDC, typical	2.5 - 3.3	V
Supply current	Typical at 3.3V, 4MHz and RT (room temp)	7	mA
Supply current sleep mode	Power down, typical	10	µA
Clock frequency	Serial SPI	32	MHz
Read out speed	Serial SPI	4	Mpixel/s
Active sensing area	Pixel matrix	10.64 x 14.00	Mm
Size sensing array	Pixel matrix (363 dpi)	152 x 200	Pixel
Pixel resolution	256 gray scale values	8	Bit
ESD protection	IEC61000-4-2, level 4, air discharge	> 15	kV
Wear-and-tear	No of wear cycles at 6N	> 1 million	Cycle

Note: Data represents typical values or limit values.