

Capacitive Fingerprint Sensing Device

FPC1010

FEATURES

- Internal A/D
- SPI interface
- 3.3 Volt operation
- Robust surface coating
- >1 000 000 wear cycles
- >15kV ESD protection

APPLICATION EXAMPLES

- Mobile phones
- Portable computers
- Security systems
- Smart cards



GENERAL DESCRIPTION

The FPC1010 is a second-generation extremely compact, versatile monolithic fingertip pattern sensor implemented in a 0.5 μ m triple metal CMOS process. The sensor works by sensing the small variations in surface-capacitance when a fingertip is placed on the sensor surface.

QUICK REFERENCE DATA

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _{DD}	Digital supply voltage		3.15	3.3	3.45	V
V _{DDA}	Analog supply voltage		3.15	3.3	3.45	V
I _{DD}	Supply current, total	Active drivers			8	mA
I _{DD0}	Supply current, total	Power down			2	mA
	Pixel cell size			70x70		μ m
	Number of pixels			152x200		pixels
	Active sensing area			10.64x14.00		mm
	Resolution			363		dpi
	Pixel resolution			8		bits

Table 1. Quick reference data.