

Capacitive Fingerprint Sensing Device

FPC1030

FEATURES

- Swipe sensor
- Compact, low cost
- LVDS interface, 1 - 8 Mpixel/s
- 3.3 volt operation, power down mode
- Robust surface coating
- >15Kv ESD protection



APPLICATION EXAMPLES

- Mobile Phones
- PDAs
- Portable Computers
- Smart Cards

GENERAL DESCRIPTION

The FPC1030 is a third-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 swiped over the surface of the chip.

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 | CE active | 8 | 50 | 64 | mA |
| I _{DD0} | Supply current, total | CE inactive, no finger | | 5 | 15 | μ A |
| | Pixel cell size | | | 70x70 | | μ m |
| | Number of pixels | | | 152x32 | | pixels |
| | Active sensing area | | | 10.64x2.24 | | mm |
| | Resolution | | | 363 | | dpi |
| | Pixel resolution | | | 8 | | bits |

Table 1. Quick reference data.