



Midas Touch

magic embedded

We are dedicated to developing sensing technology, and providing customers with an innovative and diverse range of sensor products.

Our sensors and state-of-the art fingerprint recognition algorithm technologies provide advanced and convenient fingerprint acquisition and verification.

# MFC-1300 Fingerprint Sensor User Manual

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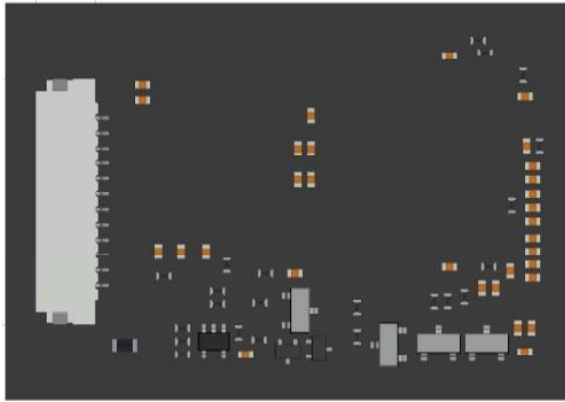


## 1. Features

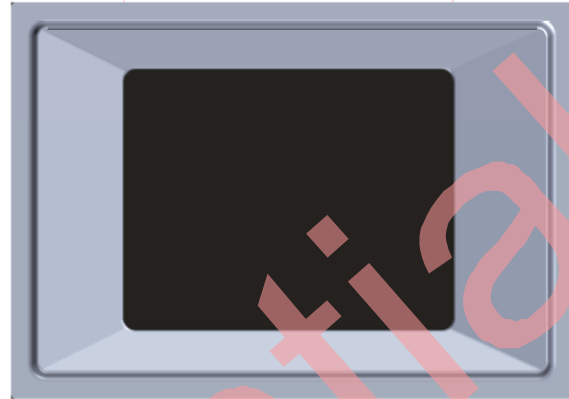
- **Complete Fingerprint Sensor Module:**
  - MFC-1300GD Sensor with iG103CL Sensor Controller
  - Module Size: 26mm x 37mm x 5mm
  - Connector used: BL123H-10R-TAND (12 pin/pitch 1.0mm)
  - Housing Material: Steel
  - ESD Tolerance: +/- 15KV
  - FPS: 12.3 /sec
- **MFC-1300GD Sensor:**
  - Pixel: 300 x 400
  - Pixel Size: 50.8 um x 50.8 um
  - Spatial Resolution: 500 dpi
  - Sensing Area: 15.24mm x 20.32mm
- **iG103CL Controller**
  - SPI Clock: 24MHz
  - Package: LGA 132 pin
  - Package Size: 10mm x 10mm x 0.8mm(max)
- **Power Consumption:**
  - Total Supply Current: 25mA
  - Standby Current: 65uA
  - Sleep Current: 55uA
- **Environmental Specification**
  - Operating temperature: -20° C to +70° C
  - Storage temperature: -40° C to +85° C
  - RoHS compliant and low-halogen
  - RCA: 200 cycle
  - Pencil Hardness: 7H
  - Cross cut: 5B
  - PIV Certification



## 2. Module Structure



Bottom View



Top View

## 3. Connect Pin Define

Pin Number	Pin Name	Type	Pin Description
1	TCH_OUT	Output	Internal touch function output
2	QSPI_MISO(IO1)	Output	Data output pin for QSPI interface
3	VDD33	PWR	3.3Power In(Min3.0V-Max3.6V)
4	RSTN	Input	System reset pin, Low active
5	QSPI_CLK	Input	Clock input pin for QSPI interface
6	GND	GND	Ground, on bottom of chip
7	QSPI_MOSI(IO0)	I/O	Data I/O pin for QSPI interface
8	QSPI_SS	Input	Chip select pin for SPI interface
9	ESD_GND	ESD	Connect ESD pin to Ground.
10	LDO_EN	Input	Sensor internal power enable.(Default pull high) Connect to MCU GPIO is required
11	QSPI_IO2	Output	Data Output pin for QSPI interface
12	QSPI_IO3	Output	Data Output pin for QSPI interface