

Optical Fingerprint Biometric Authentication Solutions (C608)

Overview:

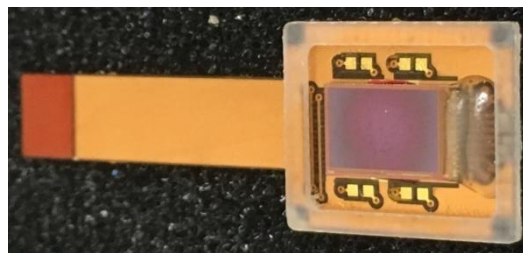
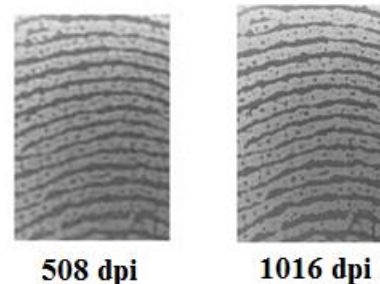
CMOS Sensor, Inc., a leading Image Sensor company located in Cupertino, CA, has developed C608, an optical fingerprint sensor for biometric authentication solutions.

Fingerprint authentication has been widely implemented for security. For example, a new trend in smartphones and tablets utilizes fingerprint authentication features. For these highly secure applications, the new C608 optical fingerprint sensor chip is an ideal solution. It is capable of scanning fingerprints through thick cover glass (2.5D glass or thicker) with high resolution and high performance, making it possible for the industry to achieve clean, button-free designs.

Most of the existing smartphone and tablet displays require cover glass cut-out to accommodate the capacitive fingerprint sensor. For the next generation smart phones and tablets, full top-to-bottom, edge-to-edge displays without any cut-out are highly desired. Glass thinning is necessary for capacitive finger print sensors. Cover glass cut-out or thinning usually adds a significant amount of cost to the manufacture process, as well as weakens the cover glass, resulting in lower manufacturing yields. CMOS Sensor Inc's C608 optical fingerprint sensor, with the capability of scanning through thick glass including 2.5D cover glass, offers a perfect solution to eliminating glass cut-out or thinning.

Key Features:

- **Sensing area 4 mm X 6 mm**
 - 1016 dpi : 25 μm x 25 μm pixel; 160 x 240 array
 - 508 dpi : 50 μm x 50 μm pixel; 80 x 120 array
- **256 grey scale (8 bits) values in every pixel**
- **High speed SPI bus compatible serial interface**
- **Exposure time control with configurable LED_ON width**
- **1016 / 508 dpi sensor resolution select**
- **Core Voltage VDD = 1.8V**
- **Interface control VDDio = 1.8V - 3.3V**
- **Low active power consumption I_{vdd} = 5 mA**
- **Sleep & Standby modes for power saving**
- **Finger print scan and read out time = 18 mS**
- **20 MHz clock and default 1.28 mS LED_On time**



C608 is designed and manufactured with CMOS Sensor Inc's image sensor technologies. CMOS Sensor Inc. also offers varieties of both linear and area image sensors that have been widely used in many markets. Its technologies have helped customers to achieve many challenging projects for years, including space proven tasks.



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