The MFC-1165 is a highly integrated fingerprint image sensor. It is based on capacitive-touch sensing technology with hardened surface coating and enhanced ESD strength. A variety of communication interfaces, USB, UART and SSI are provided to connect with kinds of host system flexible and easily.

The fingerprint template can be sorted in internal 256K Bytes flash memory with the security element to protect the fingerprint template data. To mobile payment application, template data. To mobile payment application, the security of fingerprint template is the major concern and MFC-1165 is focus on this point to provide the solution.

With the sleep-mode finger detection function, host system can enter sleep mode and be waked up by finger detection interrupt pin to enter normal operation mode. The software SDK including fingerprint algorithm is provided to reduce the development time. With few software connection APIs, it can integrate with windows or android system. Other simple MCU system can be easily integrated, too.

The software SDK without fingerprint algorithm is also provided. The software provides standard interface to integrated with other algorithm function.

### FEATURES
- Spatial resolution 508 DPI
- 2D sensor array of 160x160 pixels
- Sensing area 8 mm x 8 mm
- 13.4mm x 13.9mm package size
- IP67 dust and water resistant
- Finger detection function to detect finger on sensor
- Interrupt pin to wake up host when finger on sensor at sleep and standby mode
- Communication interface
  - USB 2.0 Full Speed x 1
  - UART x 1
  - SSI (Slave-synchronous Serial Interface) x 1
- Embedded Storage
  - OTP 1K Bytes
  - Flash 512K Bytes
- Security Engine support
  - AES, RSA, DES/3DES, SHA1, SHA256, SM1, SM2, SM3, SM4, SM6

### APPLICATIONS
- Windows notebook, windows tablet and windows mobile.

### ORDERING INFORMATION
- MFC-1165 All-in-one 160*160 capacitive fingerprint sensor with MCU and Algorithm embedded for Windows 7/8/10 OS
- MFC-1165S All-in-one 160*160 capacitive fingerprint sensor with SPI, MCU and Algorithm embedded for Windows 7/8/10 OS