



MELFAS Inc.

BioPoint™ MMS-449B® Datasheet

Capacitive Touch Screen Sensor IC

Feature Overview

- **High Performance Capacitance sensing**
 - 32-bit ARM Cortex™ M0+ Processor
 - Embedded DSP for Multi-touch Processing
 - Support up to 7.0 inch diagonal (5mm sensor pitch)
 - Provide High-Quality Accuracy and Linearity performance on 558 nodes (18×31 electrodes)
 - Provide effective 7.2-V TX drive for enhancing SNR Performance
 - TX Driving Frequency up to 700 kHz
 - 10 Fingers Multi touch report rate : Typical 100Hz (Single touch up to 240Hz) depending on the active current and the noise environment
 - Small finger support down to 4mm
 - Support to 1.5mm Passive Stylus contact
 - Support to thickness glove touch input (Test condition : 10Φ conducted rod @ 3T Acryl)
- **Low power consumption and I/O modes**
 - 2.4V to 3.6V Single supply voltage
 - Active current : 7.0mA (Typical)
 - Sleep current : Max 1uA
 - Support 13-type wake-up gesture scheme on Low power mode (Max 0.5mA)
 - Available for Open-drain/Push pull mode on I/O pins
 - Adjust INTR pin to Open-drain mode
 - Available for CE pin as wake up function
- **Communication interface**
 - I²C-compatible for Standard (100kbps) / Fast (400kbps) mode as Slave
 - HID over I²C interface for Microsoft® Windows® 8.X and 10
- **48kbytes E-FLASH and 14kBytes SRAM**
 - ISC by serial interface, F/W can be updated in systems
- **Suitable for Single Layer Multi Sensing**
 - Support up to 6Φ @ 9.7-inches GF1 solution
 - Provide the sensor pattern suitable for 1 Layer solution for low-cost implementation
- **Robust to the noisy environment**
 - Common mode noise immunity > 20 Vpp
 - Immune to the Charger noise
- **Package**
 - UQFN 60ld 6×6×0.5T, 0.35mm lead pitch

Datasheet (REV. 1.0)

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Revised NOV, 11, 2015