Freescale - DEMOMPR031 - DEMOMPR031 Demo Board

Product Overview:

This is a simple, standalone demo board that allows a user to touch two simple clear buttons and view the LED response using a MPR031 touch sensor controller.

The MPR03X is an Inter-Integrated Circuit Communication (I2C) driven Capacitive Touch Sensor Controller, optimized to manage two electrodes with interrupt functionality, or three electrodes with the interrupt disabled. It can accommodate a wide range of implementations due to increased sensitivity and a specialized feature set.

Key Features:

- 6 µA supply current with two electrodes being monitored with 32 ms response time and IRQ enabled
- Compact 2 x 2 x 0.65 mm 8-lead µDFN package
- Supports up to 3 touch pads
- Only one external component needed
- Intelligent touch detection capacity
- 4 µA maximum shutdown current
- 1.71 V to 2.75 V operation
- Threshold based detection with hysteresis
- I2C interface, with optional IRQ
- Multiple devices in a system allow for up to 6 electrodes (need MPR032 with second I2C address)
- -40°C to +85°C operating temperature range

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
DEMOMPR031	Freescale	1692725	40P4102

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
MPR031	Freescale	Proximity Capacitive Touch Sensor Controller	NA	40P4102
MC9S08QG8CFQE	Freescale	8Bit Microcontroller	NA	62K5131

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
KITMPR03XEVM	Freescale	Evaluation Kit for MPR03X series	MPR03X	1692726	26R2784
AC103003	Microchip	Capacitive mTouch™ Sensing Solutions	PIC10F204/6	1718272	26R2377
E1081 KIT	Atmel	Qtouch Board	QT1081	1341259	42M0905

Document List:

Datasheets:

Part Number	Description	Size
MPR031/MPR032	Proximity Capacitive Touch Sensor Controller	302KB
MC9S08QG8	MC9S08QG8/MC9S08QG4 Data Sheet	5.26MB

Application Notes:

File Name	Size
KITSTARTER1EVM: Sensor Toolbox Starter Kit	302.13KB

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Hardware & Software:

File Name	Size
New Possibilities for Freescale Proximity Touch Sensors	208KB
DEMOMPR031 Schematic	92KB
KITMPR03XEVM Schematic	124KB
Sensor Toolbox Unified hardware, software and accessories for sensor applications	631KB
Sensor Toolbox KITMPR03XEVMPQSG Proximity Sensor Kit	110KB

Others Resources:

File Name	Size
A Touch Smaller - Freescale KITMPR03xEVM	3:50Min
Freescale Sensor Toolbox: General Overview	9:50Min
Freescale Sensor Toolbox: Proximity Sensors	6:00Min

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