



Microchip - DM183026 - mtouch Cap Sense - Evaluation Kit

Product Overview:

The mTouch Capacitive Evaluation Kit provides a simple platform for developing a variety of capacitive touch sense applications using PIC16F or PIC24F microcontrollers. The Diagnostic Tool provided allows the user to analyze application critical information in real-time as it relates to touch sensor behaviour. Two motherboards are included in the kit, which connect to the 4 sensor boards.

This Capacitive Evaluation Kit is intended to be used to develop sensors and software using Microchip's mTouch technologies. It is used by first connecting a sensor board, and then supplying power to the board via USB, Pickit™ 2, or Pickit Serial Analyzer. The connector on the right side, with numbers 0 to 15, is the connector for sensing channels. The number, from 0 to 15, represents the microcontroller's sensing channel. The vertical 2-row header is for debugging, to give easy access to some of the microcontroller pins. Debugging may also be done by Microchip Programmers or by I2C™ or USB with the mTouch Diagnostic Tool.



Kit Content:

- PIC16F727 CSM Motherboard
- PIC24FJ64GB106 Motherboard
- Direct 8 Key Board
- 12-Key Matrix Sensor Board
- 4-Channel Slider Sensor Board
- 2-Channel Slider Sensor Board
- PICKit Serial Analyzer
- USB Cable

Key Features demonstrated with kit:

The evaluation board has four different sensor demonstration boards:

- Direct 8 Key Plug-in Board
- Matrix Key Plug-in Board

- 2-Channel Slider Plug-in Board
- 4-Channel Slider Plug-in Board

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
DM183026	Microchip	1718592	08R1525

Associated Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
PIC16F727-I/ML	Microchip	8-Bit Microcontroller IC	PIC16F727	1630160	08P1534
500075-1517	Molex	SOCKET, USB, MINI-B, T/HOLE, VERT	USB, Mini B	1125349	93K4120
PG164120	Microchip	PROGRAMMER, PICKIT 2	PICKIT 2 Microcontroller Programmer	9847170	51M8937
PIC24FJ128GB106-I/PT	Microchip	MCU, 16BIT,128K FLASH,16MIPS,64TQFP	PIC24FJ128GB106	1576850	54M5097

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
PIC16F727-I/P	Microchip	8-Bit Microcontroller IC	PIC16F727	1630163	40M1421
PIC16F727-I/PT	Microchip	8-Bit Microcontroller IC	PIC16F727	1630164	40M1422

PIC24FJ128GB106-I/MR	Microchip	MCU, 16BIT,128K FLASH,16MI PS,64TQFP	PIC24FJ128GB106	1708591	08R1995
AC103003	Microchip	BOARD, CAPACITIVE TOUCH, PIC10F	PIC10F204/6	1718272	26R2377
CAPTOUCHSENSEDC	Silicon Laboratorie s	KIT, CAPACITIVE T/SENSE, DAUGHTER	C8051F931	1558939	94M6555
CAPTOUCHSENSESK	Silicon Laboratorie s	KIT, CAPACITIVE T/SENSE, DAUGHTER	C8051F931	1558938	94M6556
TOOLSTICK931DC	Silicon Laboratorie s	KIT, C8051F931, USB TOOLSTICK	C8051F931	1558937	95M0005
DM164125	Microchip	KIT, PICDEM TOUCH SENSE 1	PIC16F677, PIC16F887	1547488	78M5155
DM164128	Microchip	KIT, PICDEM TOUCH SENSE 2	PIC24F;	1631878	07P9072

Document List:

Datasheets:

Part Number	Description	Size
PIC24FJ128GB106	PIC24FJ256GB110 Family Data Sheet	5MB
PIC16F727	PIC16F72X/PIC16LF72X Data Sheet	4.58MB

Application Notes:

File Name	Size
AN1268 - mTouch Capacitive Sensing Using Period Method	131KB
AN1267 - nanoWatt & nanoWatt XLP(TM) Technologies: An Introduction to Microchip's Low Power devices	259KB

AN1229 - Class B Safety Software Library for PIC MCUs and dsPIC DSCs	398KB
AN1140 - USB Embedded Host Stack	467KB
AN1095 - AN1095, Emulating Data EEPROM for PIC18 and PIC24 MCUs and dsPIC DSCs	368KB
AN1210 - Using External Memory with PIC24F/24H/dsPIC33F Devices	244KB
AN1204 - Microchip MiWi P2P Wireless Protocol	370KB

Hardware & Software:

File Name	Size
mTouch Capacitive Evaluation Kit SW and Schematics	3445KB
mTouch Capacitive Evaluation Kit SW and Schematics June 09	3213KB
mTouch Diagnostic Tool V2.3	1226KB
mTouch Diagnostic Tool V2.5	1228KB
AN1229 Source Code	342KB
AN1210 Source Code	5KB

Others Resources:

File Name	Size
mTouch Capacitive Evaluation Kit Users Guide	715KB
Touch Technology from Microchip	238KB
PIC Microcontroller Compiled Tips 'n Tricks Guide	5.82MB