ATMEL - EVK2160A - EVK2160A Evaluation Kit

Product Overview:

The EVK2160A allows the user to evaluate all functions of the QT2160 touch sense controller. The kit provides a convenient reference design and allows the user to visualize discrete touch buttons or a touch slider LED control. The EVK2160A works stand-alone but can also be connected to a PC. The device comes fully assembled, tested and documented.

The EVK2160A can be connected to a PC using the 9206 USB Plug-in card. The EVK2160A software can be used to configure a number of device parameters and evaluate the operation of the device.

Kit Contents:

The EVK2160A Evaluation Kit contains the hardware essentials you will need to use the Kit. The items in the Evaluation Kit and their use are as follows.

- 1x EVK2160A Assembly (EVK2160A Evaluation Board in molded box)
- 1x CR2032 Battery, 3V, 235mAh
- 2x Sample AT42QT2160-MMU ICs
- 1x EVK2160A User Guide

Key Features:

- Number of keys: up to 16 keys, and one slider (constructed from 2 to 8 keys)
- Number of I/O lines: 11 (3 dedicated - configurable for input or output, 8 shared - output only), PWM control for LED driving
- Slider design: 2 to 8 keys placed in sequence, same design as keys
- Electrode design: two-part electrode shapes (drive-receive); wide variety of possible layouts
- Key sensitivity: individually settable via simple commands over I2C-compatible interface
- Interface: I2C-compatible slave mode (100kHz)
- Signal processing: self-calibration, auto drift compensation, noise filtering, Adjacent Key Suppression technology

- Low operating voltage 1.8 to 5.5 V
- Package: 28-pin 4 x 4 mm MLF RoHS compliant

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
EVK2160A	Atmel	1715524	15R1547

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AT42QT2160-MMU	Atmel	QSlide, 16-key QMatrix Sensor IC	1748491	26R5671
AT89C4051-24SU	Atmel	8-bit Microcontroller with 4-Kbyte Flash	1715462	15R0323

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
EVK1060A	Atmel	EVK1060A Evaluation Board	AT42QT1060	1715523	15R1546
KITMC33941EVM	Freescale	Evaluation Kit for the MC33941 in Touch Sensing Applications	MC33941	1535959	30M1269
CY3218-CAPEXP2	Cypress	CapSense Express Evaluation Kit	CY8C201A0	1601048	89M4387
DM183026	Microchip	mTouch Capacitive Evaluation Kit	PIC16F727, PIC24FJ64GB106	1718592	08R1525
STEVAL-IFP004V1	ST	STEVAL-IFP004V1 Digital input termination PCLT2	PCLT2	1694057	45P5437

Document List:

Datasheets:

Part Number	Description	Size
AT42QT2160	QSlide, 16-key QMatrix Sensor IC AT42QT2160	1.22MB
AT89C4051-24SU	8-bit Microcontroller with 4-Kbyte Flash	1.59MB

Application Notes:

File Name	Size
ANKD01_QMatrix Panel Design Guidelines	427KB
ANKD02_Secrets of a Successful Qtouch Design	424KB
ANKD03_Using Philipp Springs to Create Touch Keys	205KB
QTAN0015_Power Supply Considerations for Atmel Capacitive-touch ICs	65KB
QTAN0016_Diagnostic Modes for Products with Atmel Capacitive-touch ICs	67KB
QTAN0017_Check the Effects of External Noise on Atmel Capacitive-touch ICs	273KB
QTAN0030_Implementing a Long Slide Control Using a QMatrix IC	721KB
QTAN0031_Avoiding False Touch Inputs Using Atmel Capacitive Touch Sense ICs	245KB
QTAN0040_Driving the AT42QT2160 QMatrix Sensor IC	145KB

Hardware & Software:

File Name	Size
EVK2160A Demonstration Software.exe	2.82MB

Others Resources:

File Name	Size
Touch Sensors Design Guide	1.18MB
QMatrix Technology White Paper	388KB
Software GUI for the EVK2160A Demonstration Kit User Guide	943KB
USB Plug-in Card for the EVK2160A Demonstration Kit User Guide	594KB