



## FREESCALE - RD3803MMA7660FC Acceleration Evaluation Board Kit

### Product Overview:

The RD3803MMA7660FC is designed to provide the user with a complete out of the box experience to evaluate the MMA7660FC, a low power, 3-axis linear accelerometer with I2C digital output. An accelerometer daughter board plugs directly into the communication board for evaluation of the MMA7660 accelerometer and its functions. The accelerometer daughter board can be removed for customer prototyping and is also available to order separately as KIT3803MMA7660FC.



The KIT3803MMA7660FC is an accelerometer daughterboard designed with all the accelerometer pins connected directly to a standard DIP socket for fast system prototyping and device evaluation within the user's application. This sensor daughterboard is also available in the RD3803MMA7660FC development kit that includes the daughterboard along with the MCU communicator board.

### Kit Contents:

- Communication board containing a Freescale MCU and USB interface which enables the communication with a PC
- Accelerometer daughter board with MMA7660FC accelerometer
- Graphical user interface (GUI) for demonstrating all integrated accelerometer features as well as software routines for specific applications.
- USB Connector
- Sensor CD containing pertinent application notes, datasheets, software and sensor links

### Key Features:

- Digital Output (I2C)

- 3mm x 3mm x 0.9mm DFN Package
- Low Power Current Consumption: Off Mode: 0.4  $\mu$ A,
- Standby Mode: 2  $\mu$ A, Active Mode: 47  $\mu$ A at 1 ODR
- Configurable Samples per Second from 1 to 120 samples a second.
- Low Voltage Operation:
  - Analog Voltage: 2.4 V - 3.6 V
  - Digital Voltage: 1.71 V - 3.6 V
- Auto-Wake/Sleep Feature for Low Power Consumption
- Tilt Orientation Detection for Portrait/Landscape Capability
- Gesture Detection Including Shake Detection and Tap Detection
- Robust Design, High Shocks Survivability (10,000 g)
- RoHS Compliant
- Halogen Free
- Environmentally Preferred Product
- Low Cost

## Ordering Information:

### Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
RD3803MMA7660FC	Freescale	1738821	08R2491

### Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
KIT3803MMA7660FC	Freescale	An Accelerometer Daughterboard	1738820	08R2490
MMA7660FCR1	Freescale	3-Axis Orientation/Motion Detection Sensor	1739551	74P0442
MMA7455L	Freescale	3-Axis Digital Output Acceleration Sensor	1605506	69M3899
MMA7331L	Freescale	3-Axis Analog Output Acceleration Sensor	NA	12N7283
MMA7361L	Freescale	3-Axis Analog Output Acceleration Sensor	NA	12N7289
MMA7341L	Freescale	3-Axis Analog Output Acceleration Sensor	1659489	12N7288
ADXL325BCPZ	Analog Device	Small, Low Power, 3-Axis $\pm$ 5 g	1760811	05R6562

		Accelerometer		
ADXL326BCPZ	Analog Device	Small, Low Power, 3-Axis $\pm 16$ g Accelerometer	1760812	05R6565
ADXL327BCPZ	Analog Device	Small, Low Power, 3-Axis $\pm 2$ g Accelerometer	1760813	05R6568

### Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
KIT3468MMA7455L	Freescale	Output Accelerometer Evaluation Board	MMA745xL	1642689	12N6908
RD3172MMA7456L	Freescale	3-Axis Digital Accelerometer Dev Kit	MMA7361L MMA745xL	1750499	40P6542
KIT3376MMA7341L	Freescale	3-Axis Analog Accelerometer Evaluation Kits	MMA7341L	NA	12N6907
EVAL-ADXL335Z	Analog Device	Three-Axis Accelerometer Evaluation Board	ADXL335	1699046	80P4155
EVAL-ADXL325Z	Analog Device	Three-Axis Accelerometer Evaluation Board	ADXL325	NA	05R7176
EVAL-ADXL326Z	Analog Device	Three-Axis Accelerometer Evaluation Board	ADXL326	NA	05R7177
EVAL-ADXL327Z	Analog Device	Three-Axis Accelerometer Evaluation Board	ADXL327	NA	05R7178

### Document List:

### Datasheets:

Part Number	Description	Size
MMA7660FC	<a href="#">3-Axis Orientation/Motion Detection Sensor</a>	797KB
MMA7455L	<a href="#">3-Axis Digital Output Acceleration Sensor</a>	544KB
MA7331L	<a href="#">3-Axis Analog Output Acceleration Sensor</a>	170KB
MMA7361L	<a href="#">3-Axis Analog Output Acceleration Sensor</a>	170KB
MMA7341L	<a href="#">Three Axis Low-g Micro machined Accelerometer</a>	170KB

## Application Notes:

File Name	Size
<a href="#">AN3837, Setting up the MMA7660FC for Orientation, Shake, Auto-Wake/Sleep and Tap Detection</a>	607KB
<a href="#">AN3839, MMA7660FC Board Mounting Guidelines</a>	454KB
<a href="#">AN3841, Performing Offset Calibration using the MMA7660FC</a>	177KB
<a href="#">AN3840, Setting up the MMA7660FC to do Orientation Detection</a>	349KB
<a href="#">AN3838, How to use the MMA7660FC with a Microcontroller to do Software Enhancements to Change Orientation Detection Trip...</a>	362KB
<a href="#">AN3803, RD3803MMA7660FC Evaluation Kit User's Guide</a>	1819KB
<a href="#">RD3803MMA7660FC Quick Start Guide</a>	537KB
<a href="#">MMA7660FC Three-axis low g digital acceleration sensor</a>	347KB
<a href="#">MMA7660FC Accelerometer for Mobile Handsets</a>	355KB

## Hardware & Software:

File Name	Size
<a href="#">RD3803SCHEMATIC</a>	138KB
<a href="#">SCH-76720</a>	95KB