



Nvis Accelerometer module MC18 is an extension module for Nvis Microcontroller development platforms. The module has been designed for students and practicing engineers to gain invaluable practical experience on the principle and applications of microcontroller & Accelerometer. The objective is to have a clear understanding of how accelerometer is interfaced and controlled with microcontroller. It has various terminals for connection to external real world applications. Accelerometer module will provide a basic understanding of the accelerometer fundamentals, gravity & freefall detection. Accelerometer Sensor can measure gravity of earth & dynamic acceleration in all three axis.

Features

- Analog output for X-Y-Z axis
- Sleep mode: 3 μ A
- Current consumption 1mA at +5V
- Low Voltage Operation +5 V
- High Sensitivity (800 mV/g @ 1.5g)
- Selectable Sensitivity ($\pm 1.5g$, $\pm 6g$)
- Zero gravity detect for freefall protection
- Expansion connectors for plug in with Microcontroller unit and prototyping area

Scope of Learning

- Understanding the concepts of Acceleration
- Study and design motion based devices
- Study and learn to interface Accelerometer with Microcontroller

Note :

- This module is compatible with Scientech 620X series and Nvis 5001A/2/3/4/4A/5 series Microcontroller development platforms.
- To run MC18 module with Nvis 5004, add-on board is required.
- To run MC18 module with ZigBee, MC20ZB module is required.(Optional)
- To run MC18 module with Nvis 5001A/5003, MC02 module is required.

Technical Specifications

ADC channel (X, Y, Z)	: 3
Operating Voltage	: +2.7 to +3.7V
Current consumption	: 400uA (@ +3.3V)
Sleep mode current	: 3uA (@ +3.3V)
G - Select	: 0 ($\pm 1.5g$, 800mV/g), 1 ($\pm 6g$, 206mV/g)
LED	: +5V
Power Supply	: From Scientech 620X series or Nvis 500X series Microcontroller development platforms
Product Tutorial	: Online (Theory, procedure, reference, results, etc).
Included Accessories:	
Patch cords	: 5 nos.

Applications :

- 3D Gaming: Tilt and motion sensing, event recorder
- Laptop PC: Freefall detection, Anti-theft
- Cell Phone: Image Stability, Text Scroll, Motion dialing, E compass
- Robotics: Motion sensing