

# USB Series MEMS Inclinometer

The 2GIG USB pitch and roll sensor is engineered to work for all applications. Our internal software provides unlimited programming capabilities that allow us to provide one of the easiest to use sensors on the market.



ENGINEERED TO PERFORM  
AT EVERY LEVEL

## ADAPTIVE SENSING TECHNOLOGY

### | STABILITY |

Combination of a 3-axis Accelerometer and 3-axis Gyroscope provides excellent stability under extreme environments

### | FILTER |

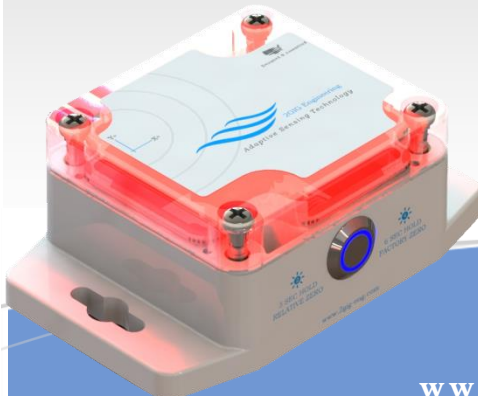
Custom filter using an advanced Kalman-based sensor fusion algorithm

### | RELIABILITY |

Polycarbonate enclosure with an epoxy encapsulated PCB allow this sensor to withstand extremes

### | ACCURACY |

Excellent dynamic accuracy for challenging conditions.



**>Our USB tilt sensor is the number one solution** for any angular measurement application. By enabling the user to simply obtain tilt readings through a USB Serial COM Port, the USB inclinometer is designed to be the perfect fit-and-forget solution.

- 0.1° of Accuracy with 0.01° Resolution
- Temperature Compensated
- Single Axis Measurement Range up to  $\pm 180^\circ$
- Dual Axis Measurement Range up to  $\pm 90^\circ$
- Horizontal or Vertical Mount Options
- Uses FTDI VCP Drivers for PC Communication
- Relative Zeroing via Button or COM Port Command
- Adjustable baud rate and output rate (up to 100 Hz)
- Simple Installation, no moving parts or maintenance

**>Rugged and robust design** built with materials chosen for their ability to survive the harshest of environments and operating conditions. Featuring an anti-fungal housing with a protection class rating of IP67, these inclinometers are guaranteed to work with the highest accuracy in any industrial condition.

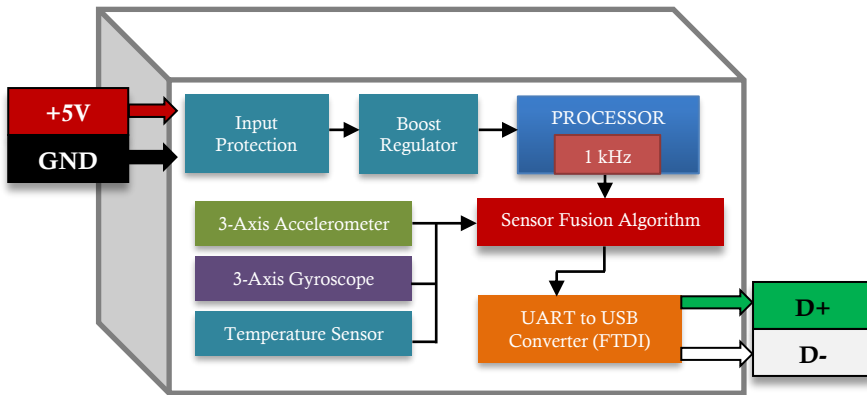
**>Flexible lead times and top notch customer service** allows us to put a 2GIG inclinometer in your hands when you need it. Our rapid communication and "on demand" supply method eliminates long lead times and ensures every customer is treated as the highest priority.

[www.2gig-eng.com](http://www.2gig-eng.com)

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# USB Series MEMS Inclinometer



## Input Protection Circuitry

- Reverse Polarity Protected
- Overvoltage Protected up to 60VDC
- CE Compliant Protection – Resists surges up to 500V and 250A

## Boost Regulator

The boost regulator is a unique boost/buck switching regulator, which will keep the device working even if the USB input voltage drops below 5v.

## Sensor Fusion Algorithm

Our advanced algorithm provides excellent dynamic accuracy for high vibe and high acceleration conditions.

## UART to USB Converter (FTDI)

The sensor fusion algorithm readings are sent to an FTDI converter, which allows the user to receive the readings via a virtual COM Port on the PC. The USB COM Port baud rate and output rate are adjustable via input commands.

## LEVELING THE WORLD

The USB Inclinometer has a wide array of uses. Our team of engineers can work with you in order to create the sensor that fits your application. Whether its legacy units, drop-in replacements, or new applications, 2GIG can provide the correct settings for your application.

### AERIAL LIFTS



### CONSTRUCTION



### MARINE



### AUTOMATION



### AGRICULTURE



### INDUSTRIAL



## Customize your inclinometer

- Custom data logging software
- Wiring or connector options
- Adjust the protocol messages and commands
- Use as a receiver with our wireless transmitters

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