Wit WT61 Inclinometer Acceleration Sensor User Manual

Wit WT61 Inclinometer Acceleration Sensor

Contents

Tutorial Link

Google Drive

Link to instructions DEMO:
WITMOTION Youtube Channel
WT61 Playlist

If you have technical problems or cannot find the information that you need in the provided documents, please contact our support team. Our engineering team is committed to providing the required support necessary to ensure that you are successful with the operation of our AHRS sensors.

Contact

Technical Support Contact Info

Application

- AGV Truck
- Platform Stability
- Auto Safety System
- 3D Virtual Reality
- Industrial Control
- Robot
- Car Navigation
- UAV
- Truck-mounted Satellite Antenna Equipment

Introduction

The WT61 is a multi-sensor device detecting acceleration, angular velocity and angle . The small outline makes it perfectly suitable for industrial retrofit applications such as condition monitoring and predictive maintenance. Configuring the device enables the customer to address a broad variety of use cases by interpreting the sensor data by smart algorithms.

WT61's scientific name is AHRS IMU sensor. A sensor measures 3-axis angle, angular velocity, acceleration. Its strength lies in the algorithm which can calculate three-axis angle accurately.

WT61 is an ISO standard accelerometer. It is employed where the highest measurement accuracy is required. WT61 offers several advantages over competing sensor:

- Heated for best data availability: new WITMOTION patented zero-bias automatic detection calibration algorithm outperforms traditional accelerometer sensor
- High precision Roll Pitch Yaw (X Y Z axis) Acceleration + Angular Velocity + Angle
- Low cost of ownership: remote diagnostics and lifetime technical support by WITMOTION service team
- Developed tutorial: providing manual, datasheet, Demo video, free software for Windows computer, APP for Android smartphones , and sample code for MCU integration including 51 serial, STM32, Arduino, Matlab, Raspberry Pi, communication protocol for project development
- **WITMOTION** sensors have been praised by thousands of engineers as a recommended attitude measurement solution

Warning Statement

- Putting more than 5 Volt across the sensor wiring of the main power supply can lead to permanent damage to the sensor.
- VCC cannot connect with GND directly, otherwise it
  will lead to the burning of the circuit board.
- For proper instrument grounding: use WITMOTION with its original factory-made cable or accessories.
- For secondary developing project or integration: use WITMOTION with its compiled sample code.

Use Instructions

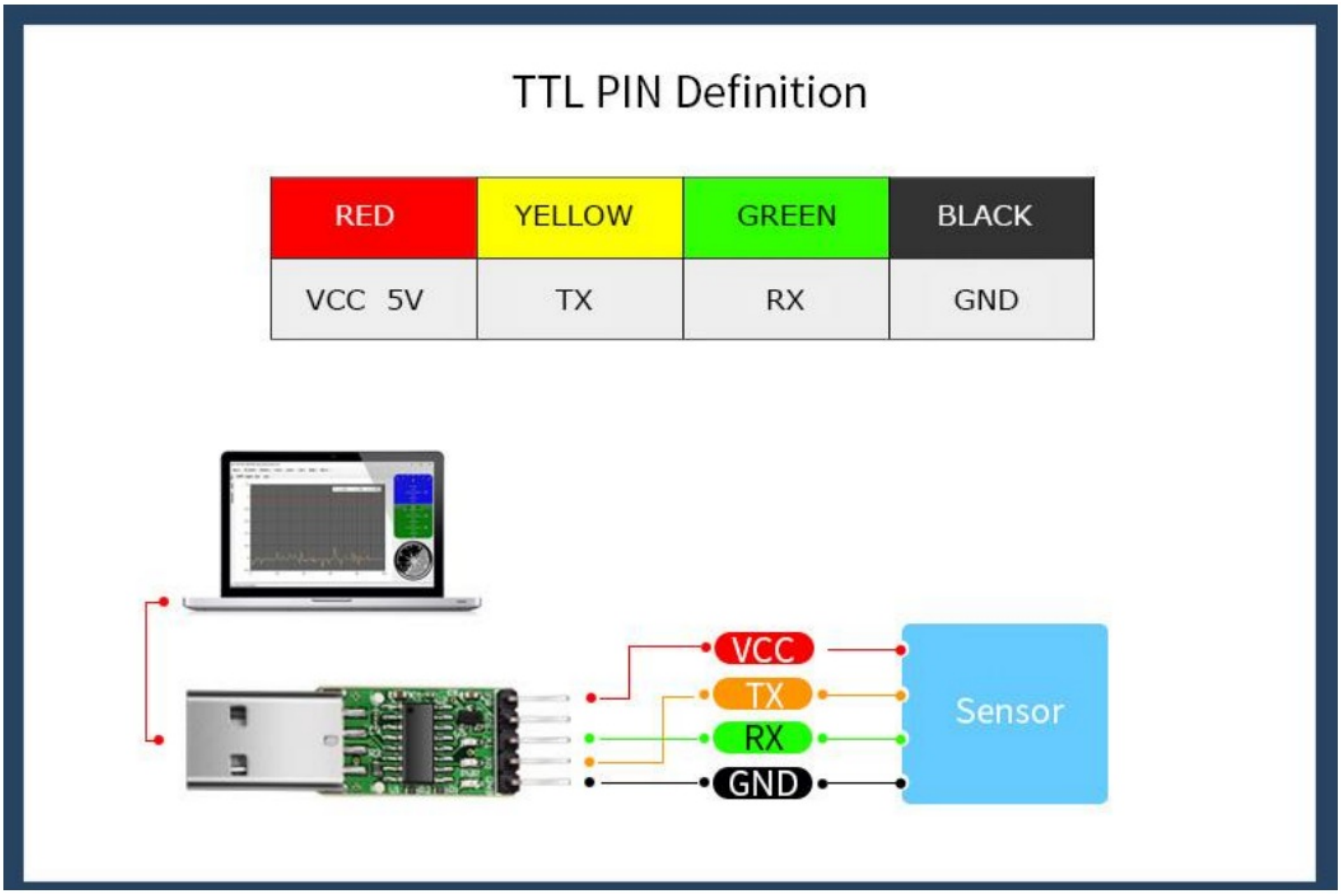
Hit the hyperlink direct to the document or download center:

- **Software and driver download**
- **Quick-guide Manual**
- **Teaching Video**
- **Common Software with detailed instructions**
- **SDK(sample code)**
- **SDK Tutorial Documentation**
- **Communication Protocol**

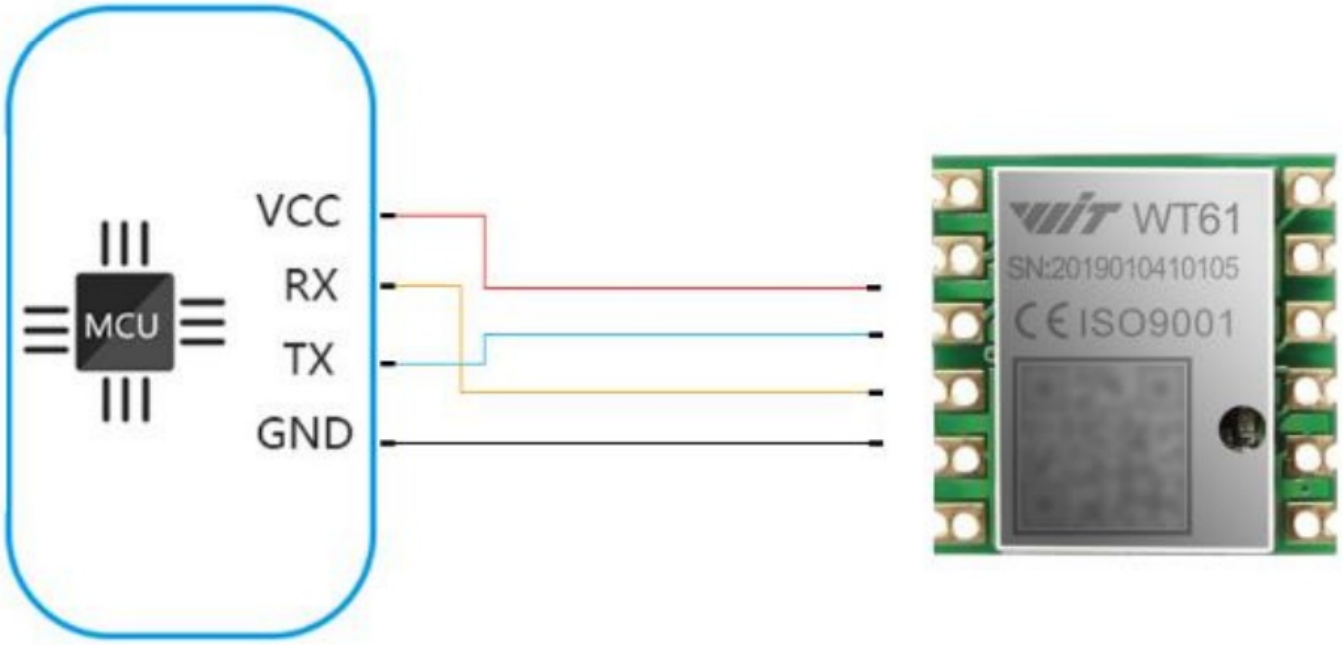
Use Instructions with PC

Step 1. Connect the sensor with a serial converter
PIN Connection:
VCC – 5V
TX – RX
RX – TX
GND – GND

(When connecting with computer, VCC-5V is recommended.)



MCU Connection



Customer Support

Documents / Resources

	Wit WT61 Inclinometer Acceleration Sensor [pdf] User Manual WT61 Inclinometer Acceleration Sensor, WT61, Inclinometer Acceleration Sensor, Acceleration Sensor, Sensor

References

- User Manual