WITMOTION WT901C-TTL 9 Axis Vibration Inclinometer User Guide

Contents

WITMOTION WT901C-TTL 9-Axis Vibration Inclinometer

Product Information

Tutorial Link

[Google Drive]

Link to instructions DEMO:

- [WITMOTION Youtube Channel]
- [WT901C 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.

Specifications

- Product Name: WT901C(TTL) Inclinometer Sensor
- Model: WT901C TTL
- Manual Version: v2023-06-28
- Website: [www.wit-motion.com]
- Email Support: [support@wit-motion.com]

Application

The WT901C TTL Inclinometer Sensor is suitable for various applications including:

- AGV Truck
- Platform Stability
- Auto Safety System
- 3D Virtual Reality

- Industrial Control
- Robot
- Car Navigation
- UAV
- Truck-mounted Satellite Antenna Equipment

Introduction

The WT901C is a multi-sensor device that detects acceleration, angular velocity, angle, and magnetic field. It is designed for industrial retrofit applications such as condition monitoring and predictive maintenance. The compact size of the sensor makes it suitable for various use cases. The sensor data can be interpreted using smart algorithms to address a wide range of applications. The scientific name of WT901C is AHRS IMU sensor. It measures 3-axis angle, angular velocity, acceleration, and magnetic field. The sensor's algorithm allows for accurate calculation of three-axis angle. The WT901C is employed in applications that require high measurement accuracy. It offers several advantages over competing sensors.

- Heated for best data availability: new WITMOTION patented zero-bias automatic detection calibration algorithm outperforms traditional accelerometer sensor
- High precision Roll Pitch Yaw (XY Z axis) Acceleration + Angular Velocity + Angle + Magnetic Field output
- 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 Python, STM32, Arduino, Matlab, Raspberry Pi, C++, communication protocol for project development
- WITMOTION sensors have been praised by thousands of engineers as a recommended attitude measurement solution

Application

- AGV Truck
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- Auto Safety System
- 3D Virtual Reality
- Industrial Control
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Warning Statement

- Putting more than 5 Volts across the sensor wiring of the main power supply can lead to permanent damage to the sensor.
- VCC cannot be connected directly with GND as it will result in the burning of the circuit board.
- For proper instrument grounding, use WITMOTION with its original factory-made cable or accessories.
- For secondary development projects or integration, use WITMOTION with its compiled sample code.

Product Usage Instructions

Use Instructions with PC

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

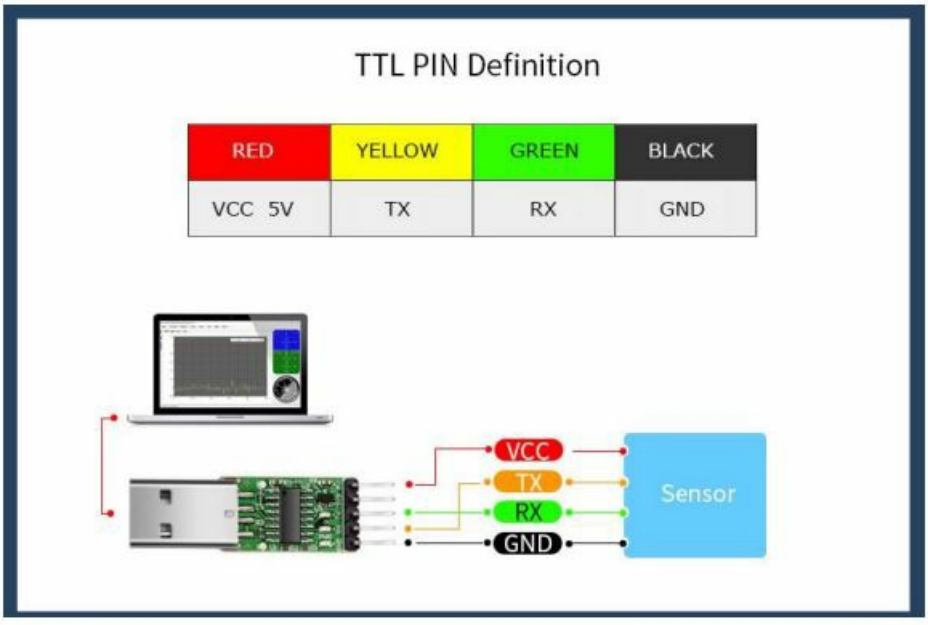
MCU Connection

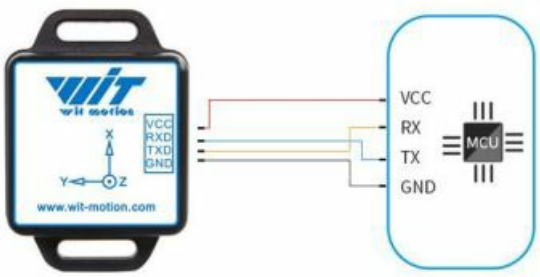
To connect the WT901C Inclinometer Sensor to an MCU (Microcontroller Unit), follow these steps:

PIN Connection:

- VCC – 5V
- TX – RX
- RX – TX
- GND – GND

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





Contact

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Documents / Resources

	WITMOTION WT901C-TTL 9 Axis Vibration Inclinometer [pdf] User Guide WT901C-TTL 9 Axis Vibration Inclinometer, WT901C-TTL, 9 Axis Vibration Inclinometer, Vibration Inclinometer, Inclinometer

References

- Hukseflux | #1 in solar radiation & heat flux measurement
- Accelerometer, Gyroscope, 6050 Mpu, Ahrs Sensor, Mpu-6050 Supplier
- Accelerometer, Gyroscope, 6050 Mpu, Ahrs Sensor, Mpu-6050 Supplier
- GitHub - WITMOTION/WitStandardProtocol_JY901: (c#)
- SDK - WITMOTION SDK
- Contacts
- User Manual