

SPECIFICATION FOR APPROVAL

CUSTOMER Quartz-1 Co., Ltd

AUDIOWELL P/N TS601-01 CUST P/N _____

DESCRIPTION ULTRASONIC RANGE FINDER

DATE 2009-07-20 NUMBER _____

THE ULTRASONIC EYES RANGE FINDER

1. INTRODUCE
2. FEATURES
3. ELECTRICAL SPECIFICATIONS
4. DIMENSIONS
5. CONNECTIONS
6. WORKING MODE

Ultrasonic Electronic Eye Telemeter Module

1. Introduction

Through the technology of non-contacted ultrasonic measurement, TS601P01 ultrasonic electric telemeter module can measure a distance within 0.03-3M effectively. And transform the data into impulse with different width. By employing ultrasonic intelligence software processing technology, the reliability of measurement are improved, as well as the capability of anti-jamming.

2. Characteristics of product

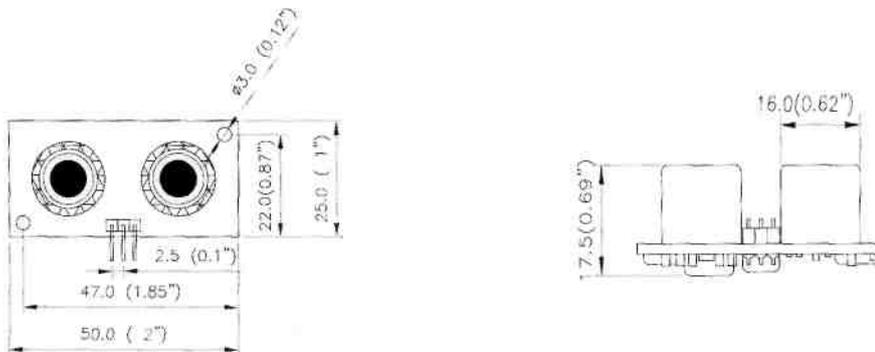
- High sensitivity
- Narrow fade zone
- Quick response
- Intelligence processing technology for Ultrasonic

3. Specification

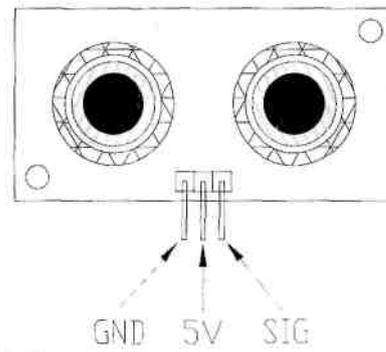
Principle of measurement	Ultrasonic detect
Typical application	Distance measurement
Range of measurement	0.03~3 M
Precision of measurement	± 2CM
Mean of output	Impulse width
Rated working voltage	5VDC
Working current	≤15 mA*
Frequency of sensor	40 KHz
Continual response time	5ms
Working temperature	0 °C ~ 70 °C
Relative moisture	≤85%
Atmosphere pressure	86~106 Kpa

* Working current is measured when 5VDC power add to the module but no trigger 4.

Appearance and dimensions Unit: mm



5. Electric connection



6. Principle of operation

The host offers the TS601 module with a impulse through SIG, the trailing edge springs, and transmits a string of ultrasonic signal of 40KHz when the module receives it. Then the electrical level of SIG stitch will be risen. The duration of high level T3 will be ensured by the distance between the object and the telemeter. After 19.5ms, the high level descends, when no object is in a distance of 3M. The host computes the distance though the impulse width input by the electronic eye module: $S=(V*T3)/2$.

