(((((cisensor	Product Specification
Model: ISTO-P1625H12T	RoHS
Revision: original version	Effective Date: 2016-08-16
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Revision

The first version.

Applications 1

Mainly used for ultrasonic ranging, smoke detector, parking system, robot R&D, liquid level measurement and so on.

2 **Features**

- 2.1 Transmitter: "T" mark on housing
- 2.2 Compact and light weight
- 2.3 High sound pressure level
- 2.4 Less power consumption
- 2.5 High reliability





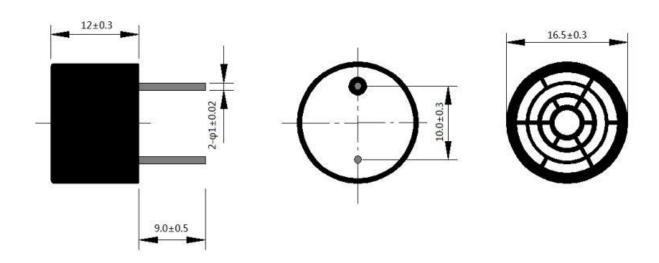
3 **Technical Specifications**

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Item	Value
Using method	Transmitter
Center frequency	25±1KHz
Sound pressure level	115dB (10V/30cm/sine wave)
Directivity	80deg
Capacitance	2600pF±20%@1KHz
Operating temperature	-30 to +85°C
Measure distance	0.2~12m
Metals of case	Plastic
Weight	2.0g

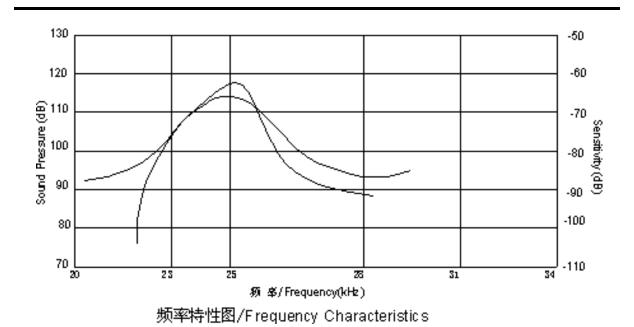
4 Mechanical Drawing

units:mm



5 Beam Pattern

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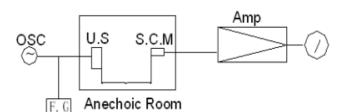


Directivity in Overall Sensitivity

6 Test Circuit

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Transmitter



U.S: Ultrasonic Sensor

S.C.M:Standard Cappacitor Microphone

Amp. :Ampifier Input voltage:10Vrms F.C :Frequency Counter

7 Reliability Test

7.1	High Temp. Life Test	
	Temperature	+85 ±3℃
	Duration	100 hrs
7.2	Low Temp. Life Test	

Temperature $-40\pm3^{\circ}$ C
Duration 100 hrs

7.3 Heat Cycle Test

Temperature $+85\pm3^{\circ}\mathbb{C}$ 1hour $-40\pm3^{\circ}\mathbb{C}$ 1hour

Cycles 10 cycles

7.4 Humidity Test

7.5 Vibration Test

Vibration Frequency $10\sim55Hz$ Sweep Period1.5 minDirectionx,y&z

Time 2 hours/direction

7.6 Shock Test

Acceleration sine 100G Direction x,y&z

Shock Time 3 times/direction

7.7 Drop Test

Height 1 m on concrete floor

Times 2 times

7.8 Connector Soldering Check:

Immersing terminal up to 1mm below in soldering bath at 260°C 10 Seconds.

Notice:

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The variation of the S.P.L at 40KHz is within 2dB compared with initial figures at 25 $^{\circ}$ C in 24 hours after above test conditions.

8 Caution in Use

- 8.1 Please avoid applying an excessive stress to the transducer because it might be damaged.
- 8.2 The transducer may generate surge voltage by mechanical or thermal shock. Care should be taken to protect from it in designing your application circuit.
- 8.3 Please do not apply DC voltage to the transducer.
- 8.4 Please do not use the transducer in water.
- 8.5 The piece of sensor may be damaged by force pressure from back of sensor.
- 8.6 Please well evaluate the painting and electrical characteristic for your coating.
- 8.7 When used to distinguish between positive and negative.

9 Note

- 9.1 Please make sure that your product has been evaluated in view of your specifications with our product being mounted to your product.
- 9.2 You are requested not to use our product deviating from the agreed specifications.
- 9.3 We consider it not appropriate to include any terms and conditions with regard to the business transaction in the product specifications, drawings or other technical documents.

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10 Packaging Details

