

# Specification

Customer:	
Customer P/O	
DRM Part No	SPU1640AOH12T/R
Issue No	SY-TE U-01-007-A
Issue Date	06/02/2014

## Approval items:

- A, Scope
- B, Characteristics
- C, Technical terms
- D, Drawing
- E, Beam Pattern
- F, Temperature & Frequency Curve
- G, Test Circuit

## Approval signature:

### Xuzhou SY Electronics Co ., Ltd

**Add:** Liji Industrial Park, Qinxiang, Liji Town  
Xuzhou City, Jiangsu Province 221221

**Tel:** +86-516-8838 2565

**Fax:** +86-516-8838 2566

## A. Scope

This specification applies Ultrasonic sensor SPU1640AOH12T/R

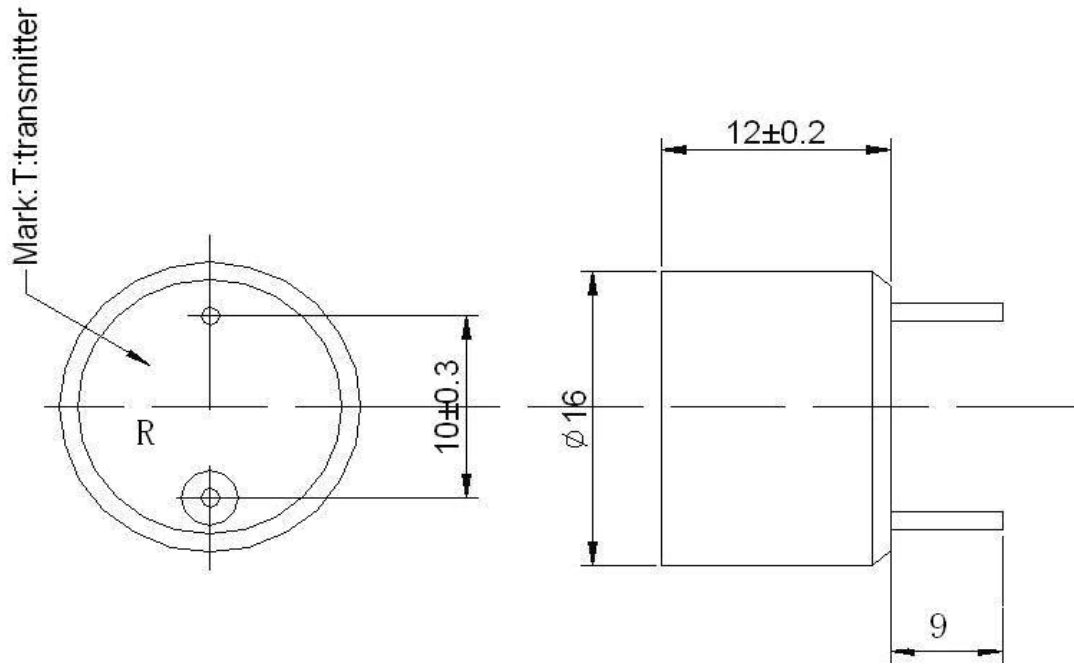
## B. Characteristic

- 1.1) Open structure and separate use
- 1.2) Compact and light weight
- 1.3) High sensitivity and sound pressure
- 1.4) Less power consumption
- 1.5) High reliability

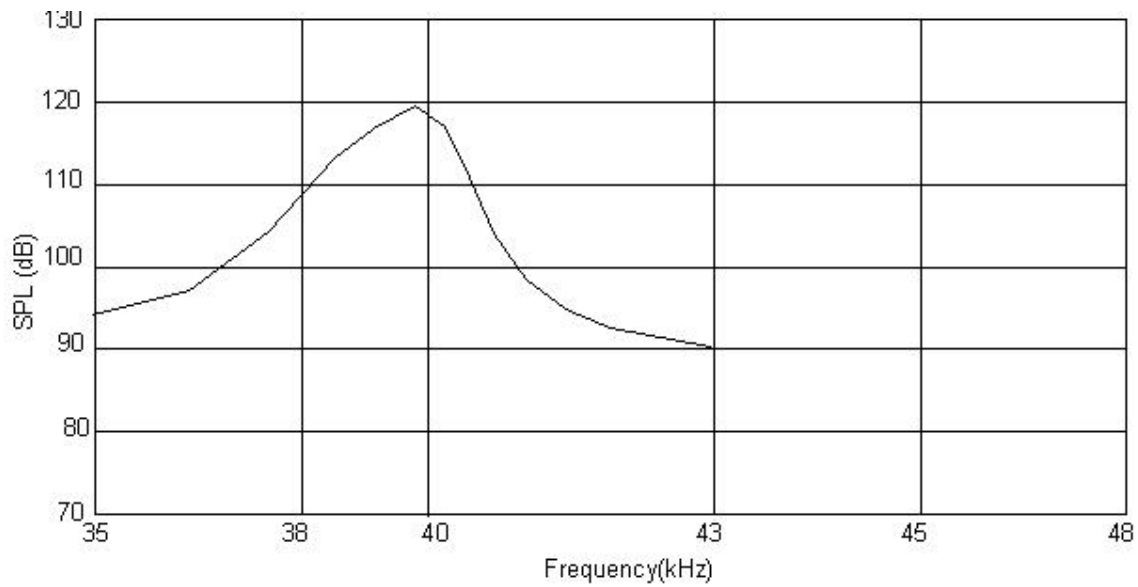
## C. Technical terms

No.	Item	Unit	Specification
1	Construction		Open
2	Using method		Transmitter/Receiver
3	Nominal Frequency	Hz	40K
4	Sensitivity		$\geq -68\text{V/u Mbar}$
5	S P L	dB	$\geq 115(10\text{V}/30\text{cm}/\text{sine wave})$
6	Directivity		60deg
7	Capacitance	pF	$2500\pm 20\% @ 1\text{KHz}$
8	Allowable input voltage	Vp-p	150(40KHz)
9	Detectable range	m	10
10	Operating Temperature	°C	-40...+85

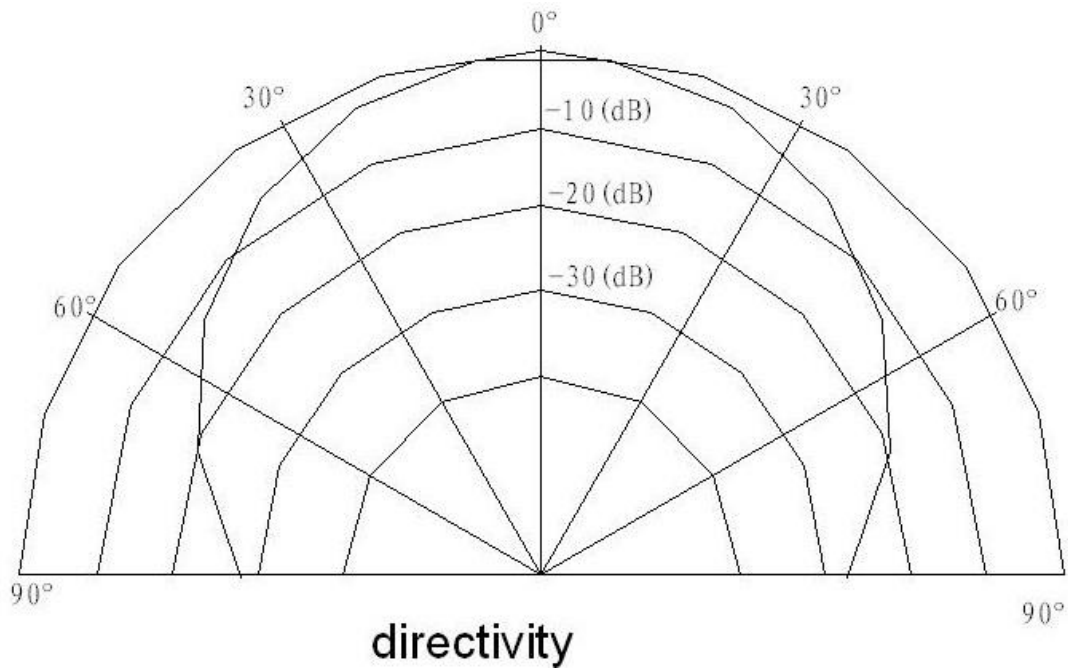
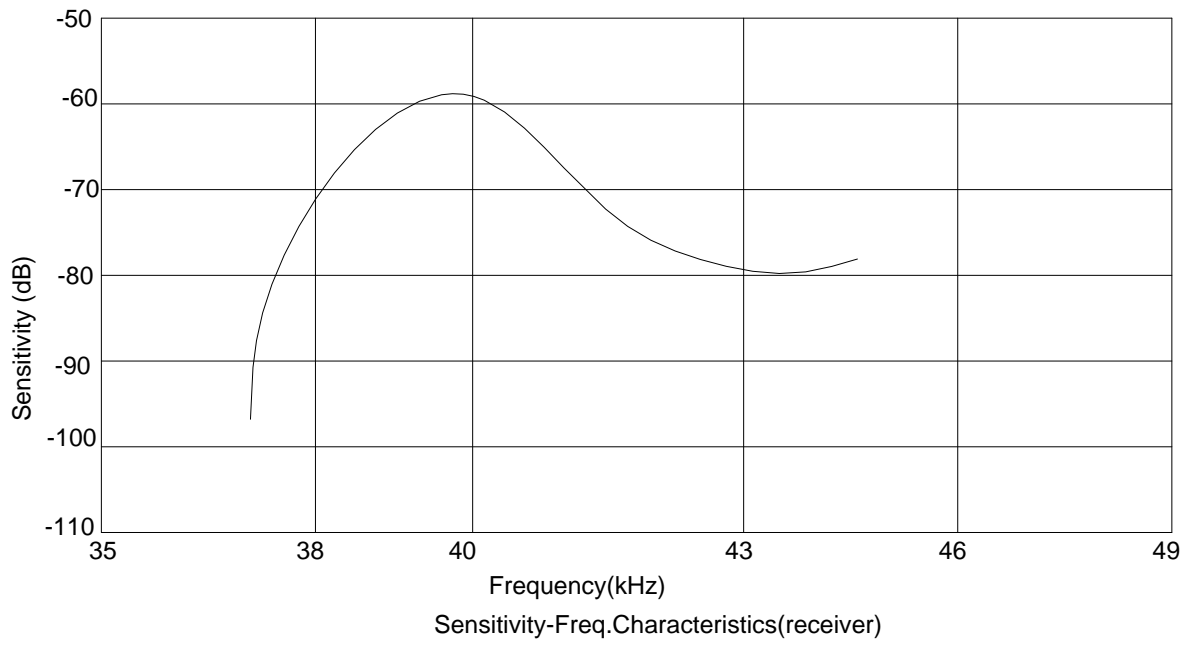
## D .Drawing (Mark: T transmitter, R receiver)



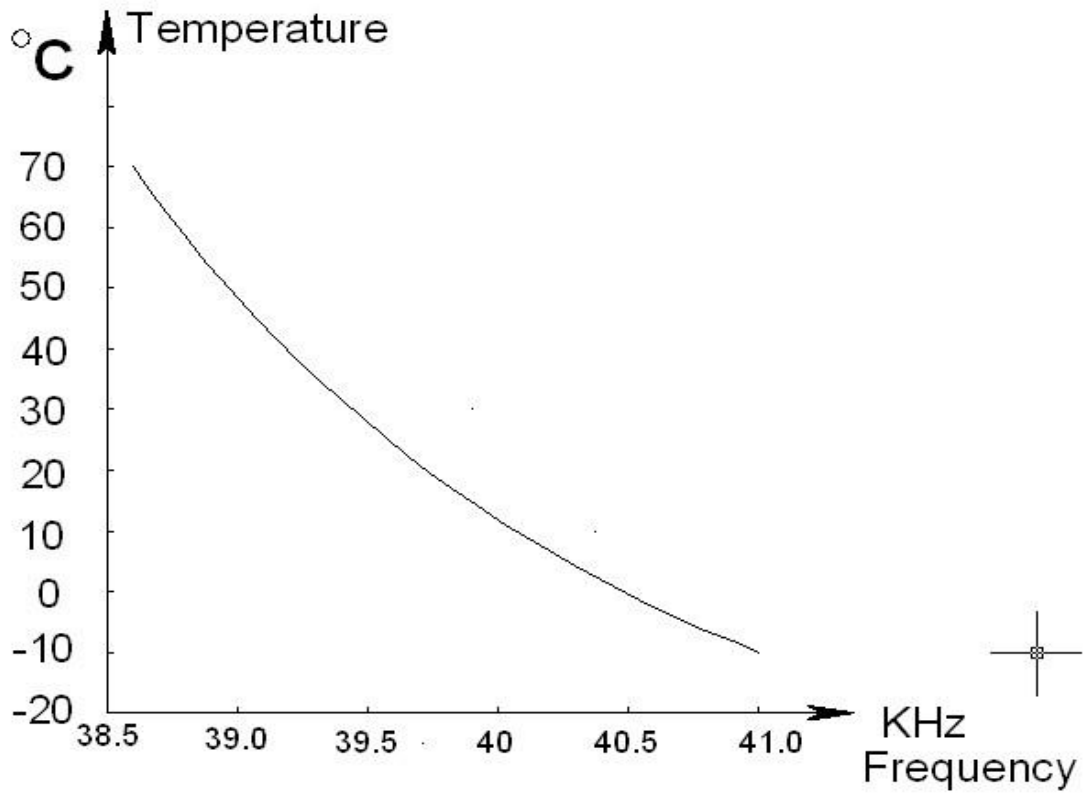
### E. Beam Pattern



SPL-Frequency Characteristics

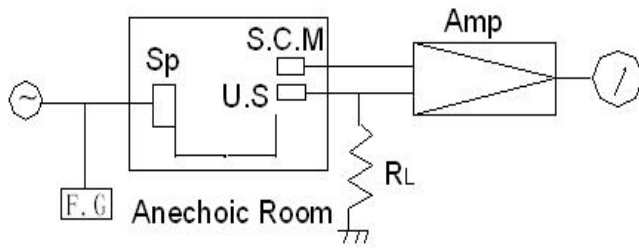


**F. Temperature & Frequency Curve**



**G. Test Circuit**

## Receiver



RL:  $3.9K\Omega$

U.S. :Ultrasonic Sensor

S.C.M:Standard Cappacitor Microphone

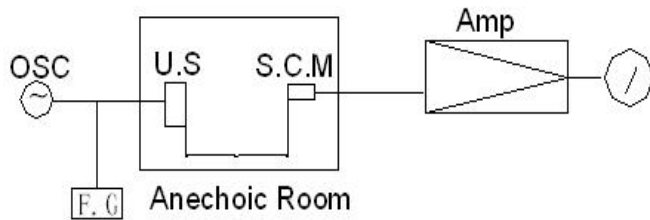
Amp. :Amplifier

OSC. :Oscillator

Sp :Tweeter

F.C. :Frequency Counter

## Transmitter



U.S. :Ultrasonic Sensor

S.C.M:Standard Cappacitor Microphone

Amp. :Amplifier

Input voltage:10Vrms

F.C. :Frequency Counter