

兴化市华宇电子有限公司

Specification

Customer:	
Customer P/O	
DRM Part No	HY40A16TR12-01
Issue No	
Issue Date	09/02/2019

Approval items:

- A, Scope
- B, Characteristics
- C, Technical terms
- D, Drawing
- E, Beam Pattern
- F, Test Circuit

Approval signature:

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A. Scope

This specification applies Ultrasonic sensor HY40A16TR12-01

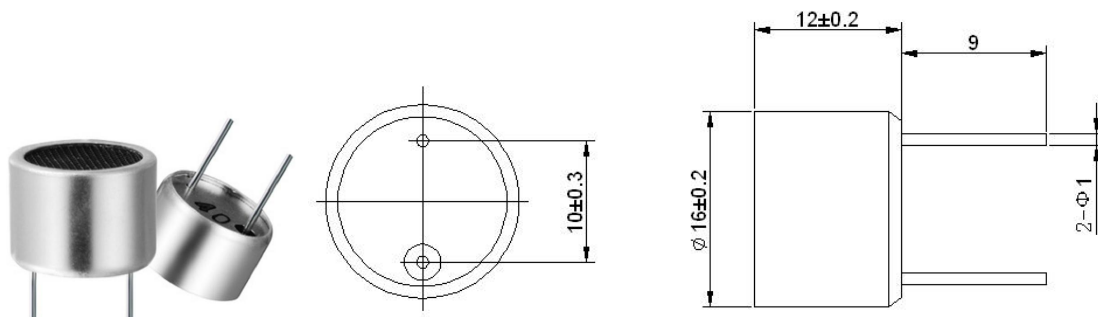
B. Characteristics

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

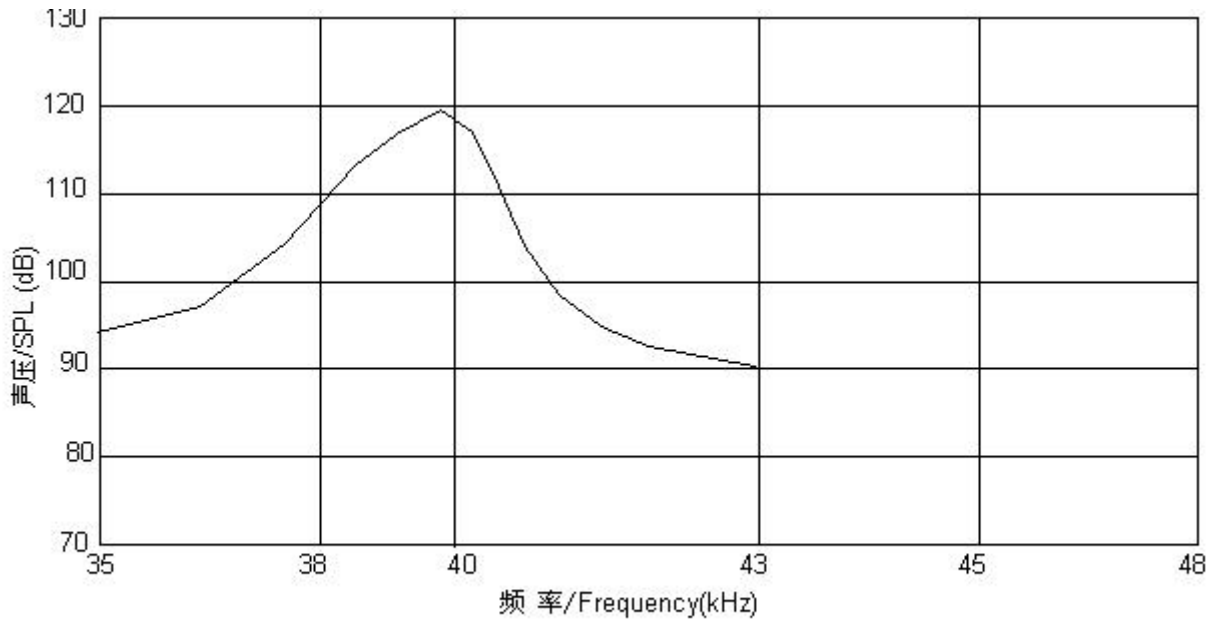
C. Technical terms

No.	Item	Unit	Specification
1	Construction		Open
2	Using method		Dual
3	Nominal Frequency	Hz	40K
4	S P L	dB	$\geq 118(10V/30cm/sine\ wave)$
5	Sensitivity	dB	$\geq -65dB\ V/u\ bar$
6	Directivity	deg	50
7	Capacitance	pF	$2400 \pm 25\% @ 1KHz$
8	Allowable input voltage	Vp-p	150(40KHz)
9	Detectable range	m	20
10	Operating Temperature	$^{\circ}C$	-20....+70

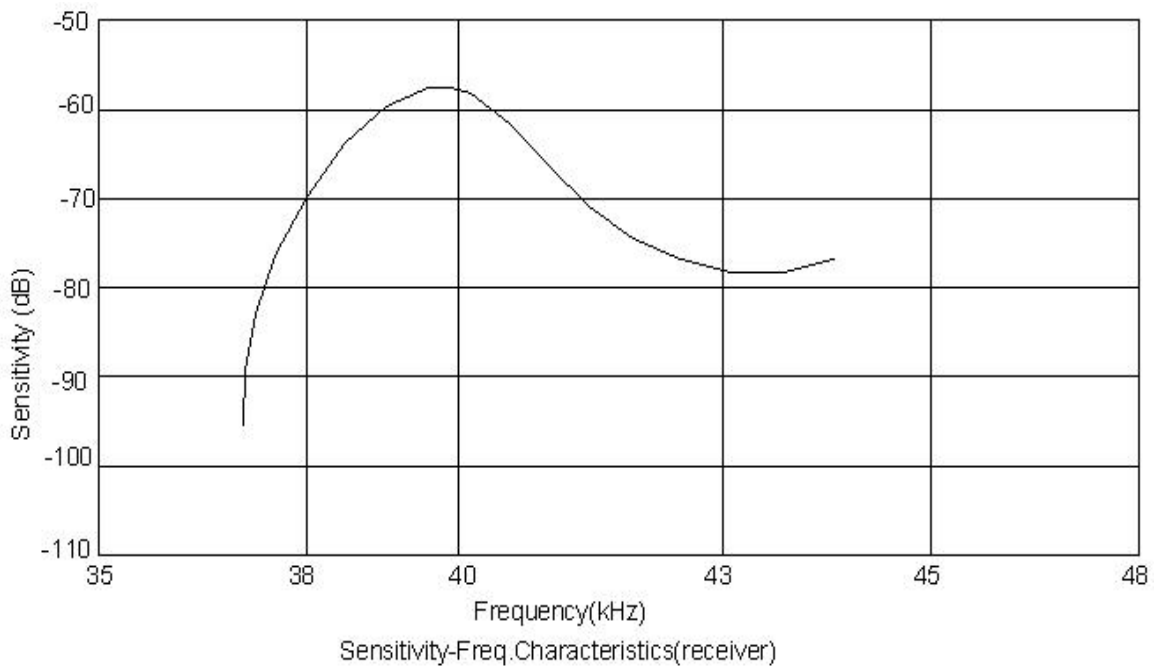
D. Drawing



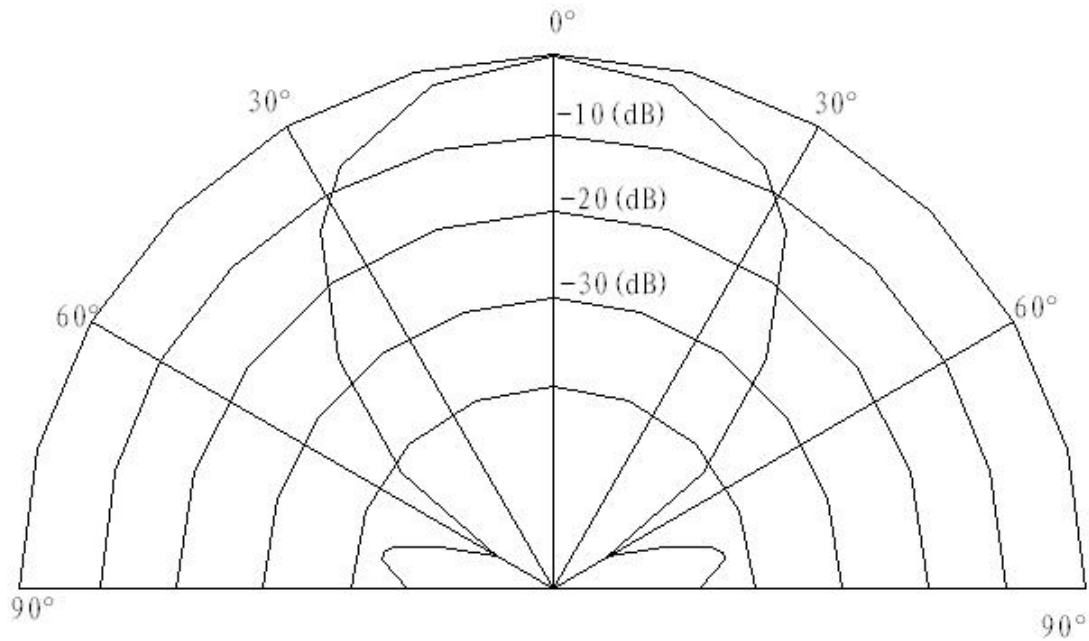
E. Beam Patten



声压-频率特性图/SPL-Frequency Characteristics



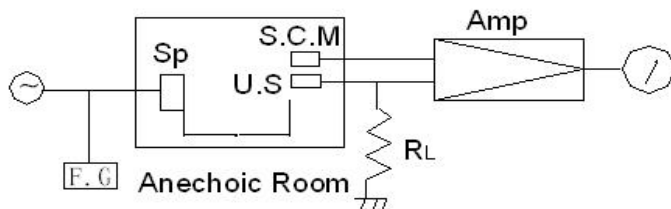
Sensitivity-Freq. Characteristics(receiver)



Directivity in Overall Sensitivity

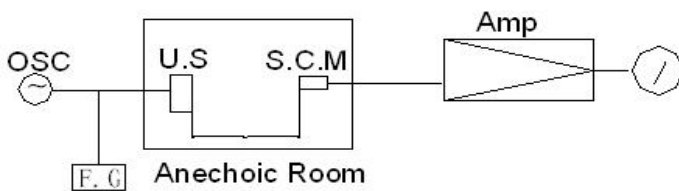
F. Test Circuit

Receiver



- RL: $3.9K\Omega$
- U.S :Ultrasonic Sensor
- S.C.M:Standard Cappacitor Microphone
- Amp. :Ampifier
- OSC. :Oscillator
- Sp :Tweeter
- F.C :Frequency Counter

Transmitter



- U.S :Ultrasonic Sensor
- S.C.M:Standard Cappacitor Microphone
- Amp. :Ampifier
- Input voltage: 10Vrms
- F.C :Frequency Counter