

AIR ULTRASONIC TRANSDUCER

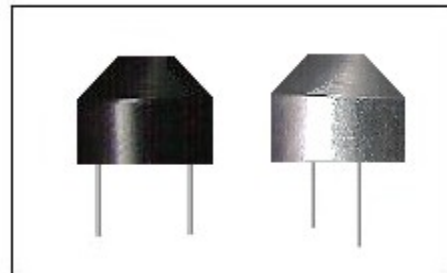
Enclose type EC4018

1. Features

- High sensitivity, high sound pressure level, uniform in quality
- Excellent vibration , shock and water resistance.
- Big operation range.

2. Applications

- Remote control of electronic appliance.
- Back sensor, Back meter for car use.
- Level meter
- Switch for electronic application.



3. Ratings

Transceiver	
Center Frequency	40.0 ±1.0Khz
Bandwidth (-6dB) F.O.M.	1.0Khz
Transmitting sound Pressure Level at resonant frequency;0dB re 0.0002μbar per 10Vrms at 30cm	92dB min.
Receiving Sensitivity at resonant frequency 0dB=1, volt/μbar	-80dB min.
Nominal Impedance (Ohm)	850
Ringing (measuring with rubber holder)	1.5ms max.
Capacitance (at 1KHz in LCR meter) ±20%	2200pF
Max.Driving Voltage (pulse width 0.5ms interval 50ms)	150Vp-p
Total Beam Angle at -6dB	90°±10°
Operation Temperature	-30 to 80°C
Storage Temperature	-40 to 85°C

4. Part number meaning:

EC 40 18

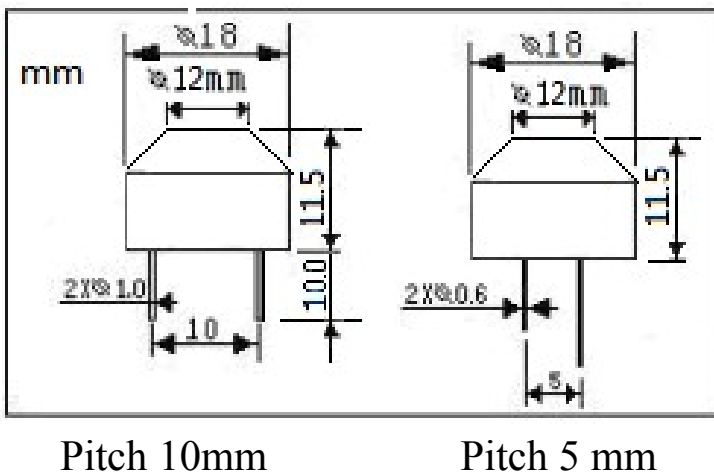
(1) (2) (3)

(1) EC: Enclose type (Water resistance) and Combine transmitter & receiver in one unit.

(2) 40: Center Frequency. (KHz)

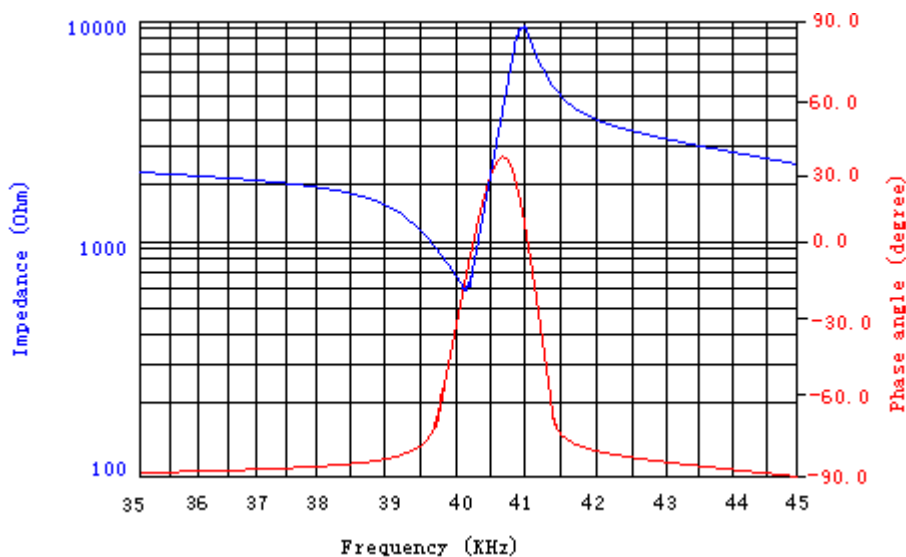
(3) 16: Transducer diameter. (mm)

5.Dimension:

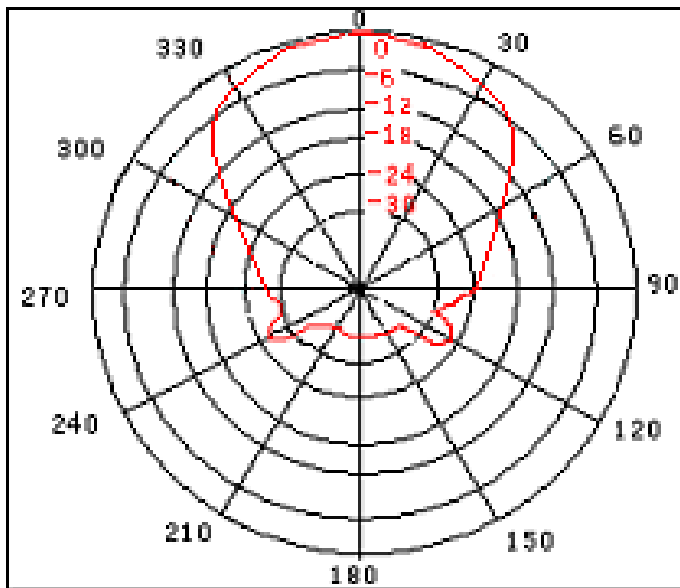


6.Impedance/Phase Angle vs.Frequency

Tested under 1Vrms Oscillation Level

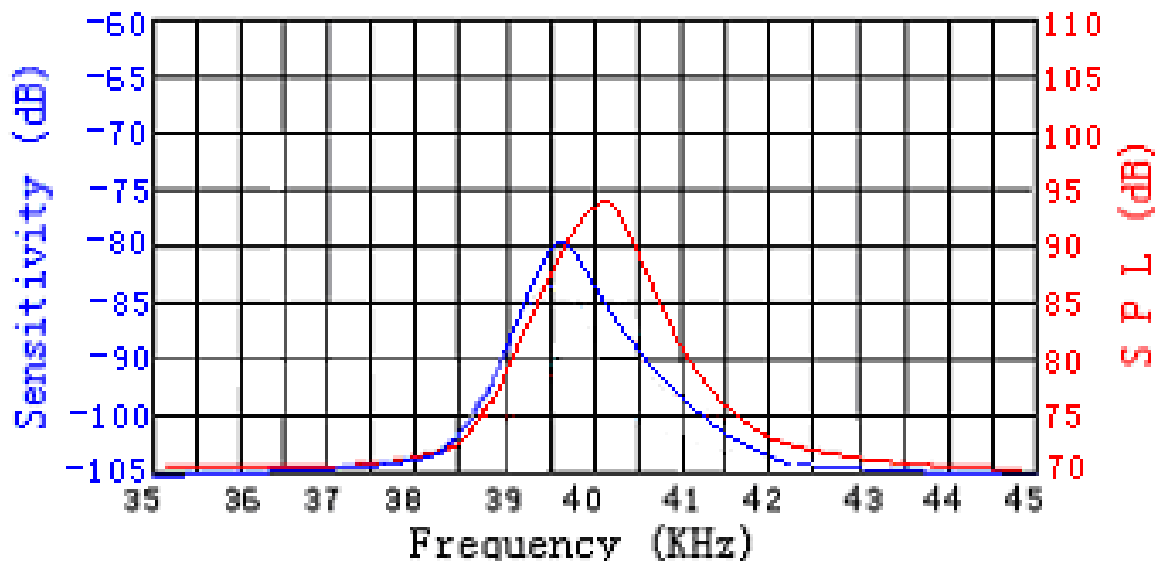


7. Beam Angle: Tested at 40.0Khz frequency

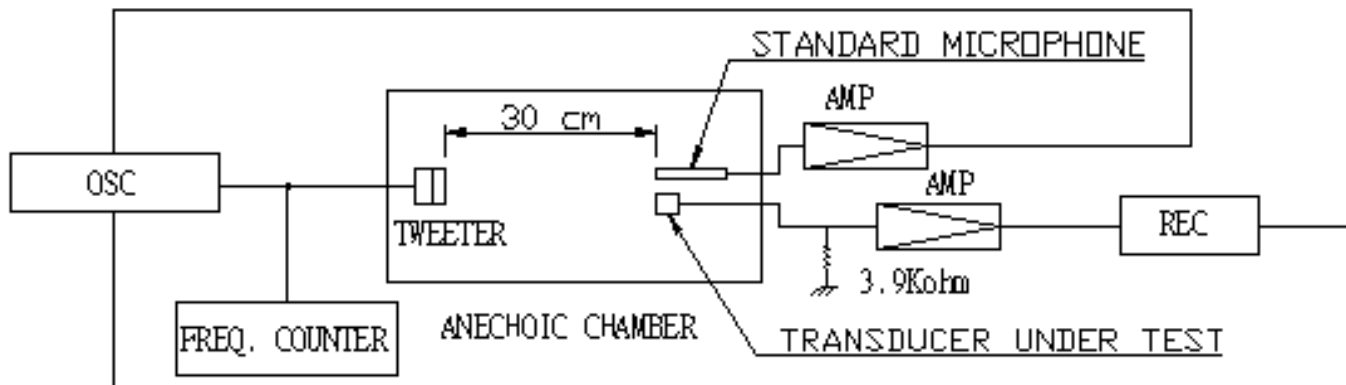


8. Sensitivity/Sound Pressure Level

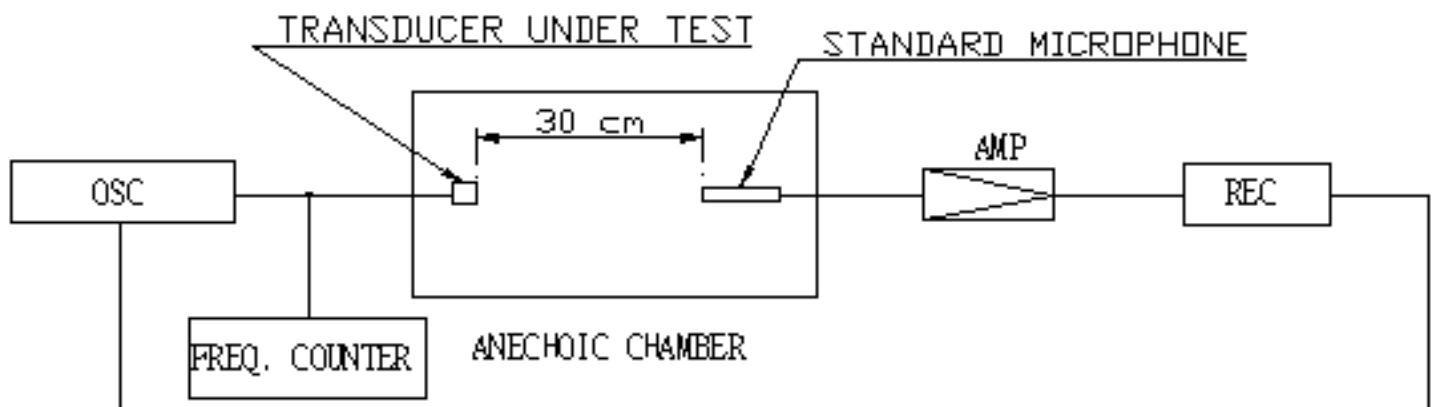
Tested under 10Vrms@30cm



9. Test Circuit Diagram for Receiving



10. Test Circuit Diagram for Transmitting



11.Environmental Characteristics

Item	Conditions	Variation of Sensitivity
Temperature Characteristics	-20~70°C	Within 10 dB
Humidity	40±2°C, 90 %RH, 2Hrs	Within 4 dB
Shock	50G impact Directions : 3 perpendicular directions Times : 3 times	Within 4 dB
Vibration	Directions : 3 perpendicular Directions Times : 1000 times Single harmonic vibration a) Amplitude: 1.5mm b) Sweep Frequency : 10-50-10Hz with interval of 1 minute	Within 4 dB