

Specification

Part Number: TS121040

Description: Loudspeaker (Size: D91.5mm x H60.7mm)

RoHS Compliant

Revision	Date	Comments
A	March 15, 2024	Released for Production

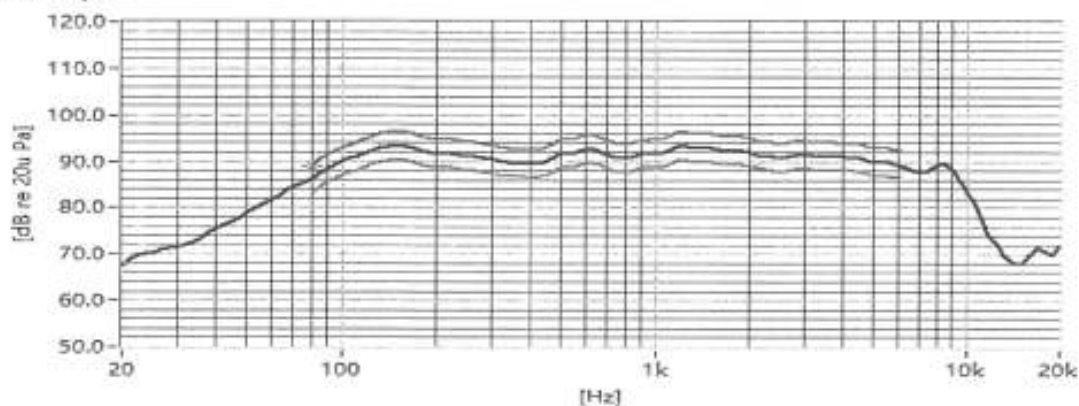
1	General	
1.1	Scope	This specification defines all design requirements for the TS121040 loudspeaker.
1.2	Test Conditions	Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are 5°C~35°C, 25%~85%RH , 860~1060HPA

2	Acoustic and Electrical Specifications		
2.1	Nominal Impedance	3Ω	
2.2	DC Resistance	2.2±0.22Ω	
2.3	Resonance Frequency	90±13.5Hz	At 1.0V
2.4	Output SPL	91±3dB SPL	2.83V / 0.5m / 800, 1000, 1250, 1600 Hz Avg
2.5	Rated Input Power	45W	10V
2.6	Max Input Power	50W	10.5V
2.7	Frequency Response and Deviation	50Hz~6kHz	Output SPL - 10dB
2.8	Buzz and Rattle	No audible buzz or rattle	Sine Wave Sweep at 10V / 50Hz~2kHz
2.9	Distortion	80Hz: 8% Max 200Hz~6kHz: 2% Max	2.83V / 0.5m
2.10	Polarity	When a positive DC current is applied to the voice coil terminal marked +, the diaphragm shall move forward	

3.1 Frequency Response

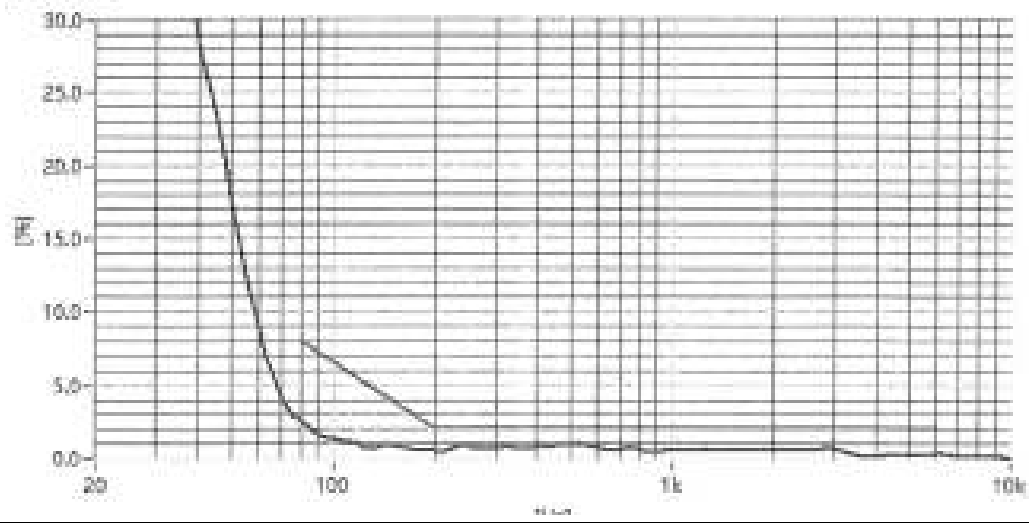
2.83V / 0.5m / In IEC Baffle

XY Graph 1

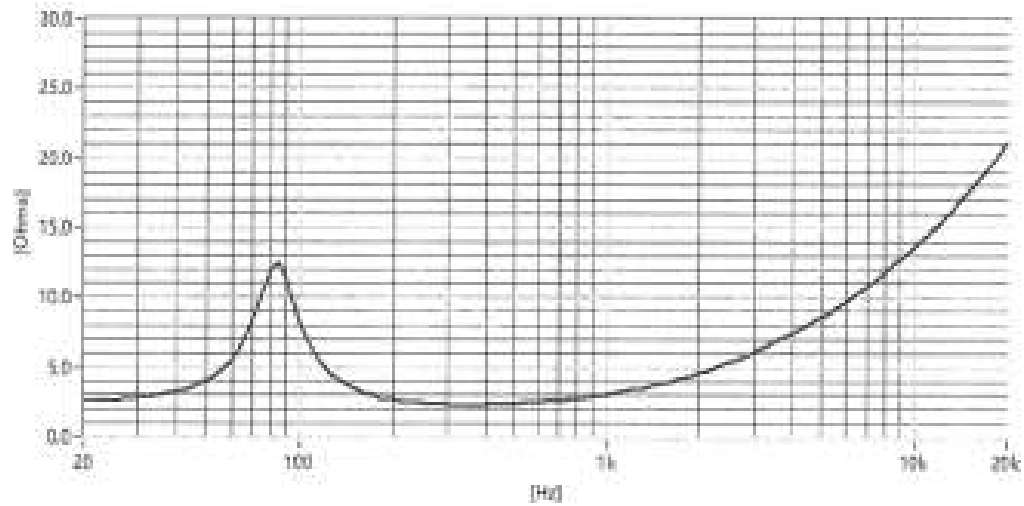


Ave Sens.=91.41dB SPL ACR.=3Ω Voltage applied for F.R.=2.83V Start F.=20Hz Stop F.=20000Hz
SPL Limit: 80Hz~6k HZ ±3dB

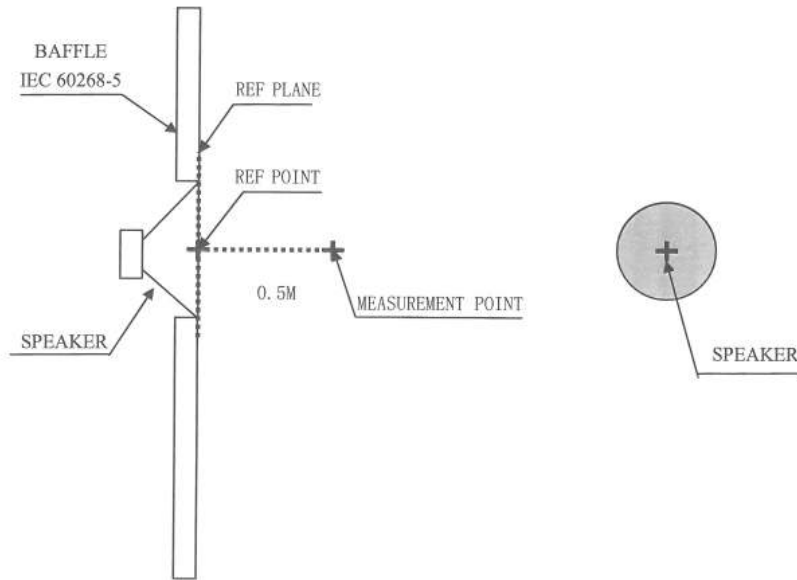
3.2 THD



3.3 Impedance

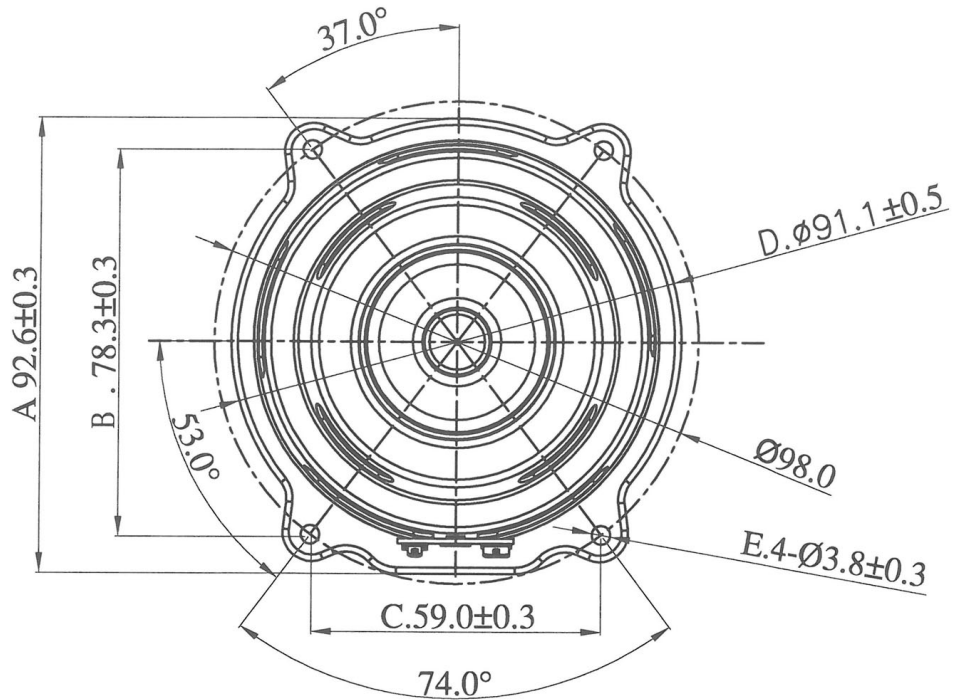


3.4 Measurement Setup



4 Environmental Characteristics		
4.1	Results after test	Sensitivity difference shall be within 2dB and there should not be any obstacles that could be harmful to normal operation, including: damage, cracks, rust, distortion, etc.
4.2	Terminal Strength	A static load of 5.0N shall be applied to the terminals for 10s in any direction between the terminal block and frame and between the terminal block and terminal fastener.
4.3	Load Test	EIA-426B Pink Noise, 6dB crest factor, 40Hz high-pass filter, 10V, 96 Hours
4.4	High Temperature Test	96 hours in test chamber at $+60\pm 2^{\circ}\text{C}$, 20~25%RH, then removed and stored at room temperature for 2 hours
4.5	Cold Temperature Test	96 hours in test chamber at $-10\pm 2^{\circ}\text{C}$, then removed and stored at room temperature for 2 hours
4.6	Insulation Resistance	A voltage of 100V DC shall be applied for 1 minute between a terminal and the frame. Afterward, resistance between the terminal and frame shall be greater than $2\text{M}\Omega$.

5 Mechanical Drawing



Allow for 8.5mm excursion

焊接后,端子内侧需涂
硅胶包覆住锦丝线

约克与支架铆合处内外
都需补一圈358AB胶

