

SPECIFICATION

FOR

APPROVAL

Customer : _____

Description : _____ Dynamic Speaker _____

Universal Model No. : ESP5018MN-29-8F28.5P _____

Customer's Model No. : _____

ISSUE	CHECK	APPROVAL	CUSTOMER
SHAOHUI 11/29/15	LITAO 11/29/15	WUSHAOCHANG 11/29/15	

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1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	Dimension	$\phi 50 \times 18.2t$
1-2	Rated Input Power	2.0W
1-3	Max Input Power	3.0W
1-4	Rated Impedance	$8 \pm 15\% \Omega$ /1KHz/1V
1-5	Resonance Frequency(f_0)	$330 \pm 20\%$ Hz/1V
1-6	Sound Pressure Level	86 ± 3 dB at (AVG0.8,1.0,1.2, 1.5)KHz 1W/0.5m baffleboard (IEC)
1-7	Frequency Range	FOHZ ~ 10KHz
1-8	Total Harmonic Distortion	5%MAX. at 1KHz,1V
1-9	Flux Density	0.4T
1-10	Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphragm shall move forward
1-11	OperationTest	Must be normal at sine wave and program source 2.0W.
1-12	Buzz,Rattle,etc.	Should not be audible at 2.0Wsine wave between (FO Hz ~ 5kHz)
1-13	Weight	47g
1-14	Voice Coil Diameter	$\phi 13.28mm$
1-15	Magnet (Ferrite)	$\phi 28.5 \times 12.5 \times 5$ mmY30
1-16	Appearance	Should not exist any obstacle to be harmful to normal operation;damages,cracks,rusts and distortions,etc.
1-17	Operating Temp. Range	-20℃ ~ +60℃
1-18	Storage Temp. Range	-25℃ ~ +70℃

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2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	High temp. Test	Keep 96 hours at $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
2-2	Low temp. Test	Keep 96 hours at $-25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
2-3	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
2-4	Thermal cycle test.	Low temperature: $-25^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
2-5	Vibration	Speaker shall be measured after being applied vibration of amplitude of 1.52mm with 10 to 55Hz band of vibration frequency to each of X、Y、Z 3 direction for 2 hours.
2-6	Drop test	Drop the speakers contained in normal box onto the board 40mm thick 10 times from the height of 75cm
2-7	Load test	Rated Power white noise is applied for 96 hours
2-8	Terminal strength test	Applied 1N load to the terminal for 30 sec.

PASS CRITERION :

After these test , the change of S.P.L shall be within ± 3 dB .

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3.MEASURING METHOD(SPEAKER MODE)

3-1 .Test Condition

STANDARD

Temperature : 15 ~ 35℃

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

JUDGEMENT

Temperature : $20 \pm 3^{\circ}\text{C}$

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

3-2 . Standard Test Fixture

1.Input Power : 1W

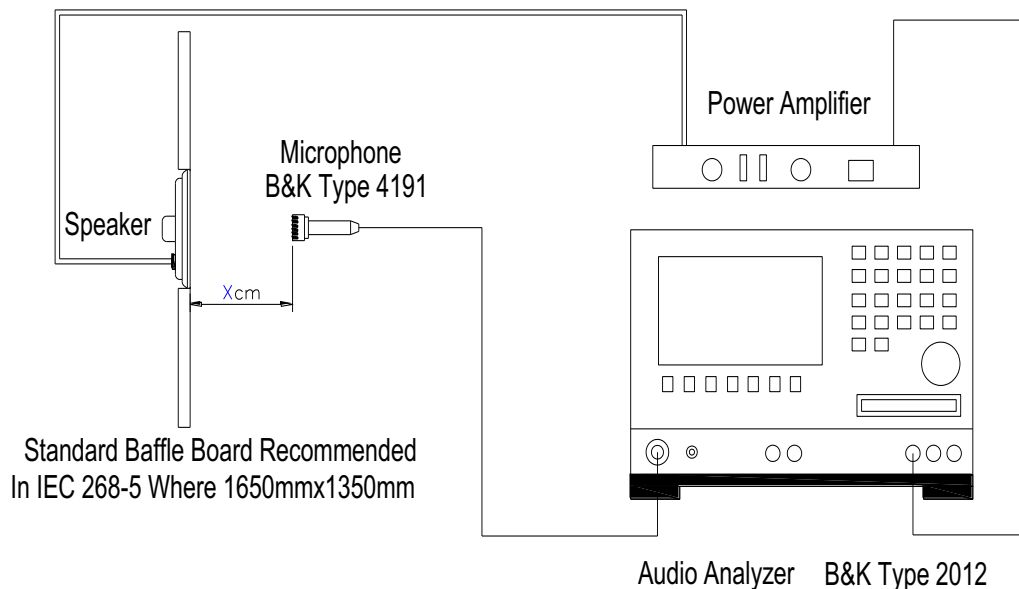
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker



X=50CM

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4.FREQUENCY RESPONSE CURVE



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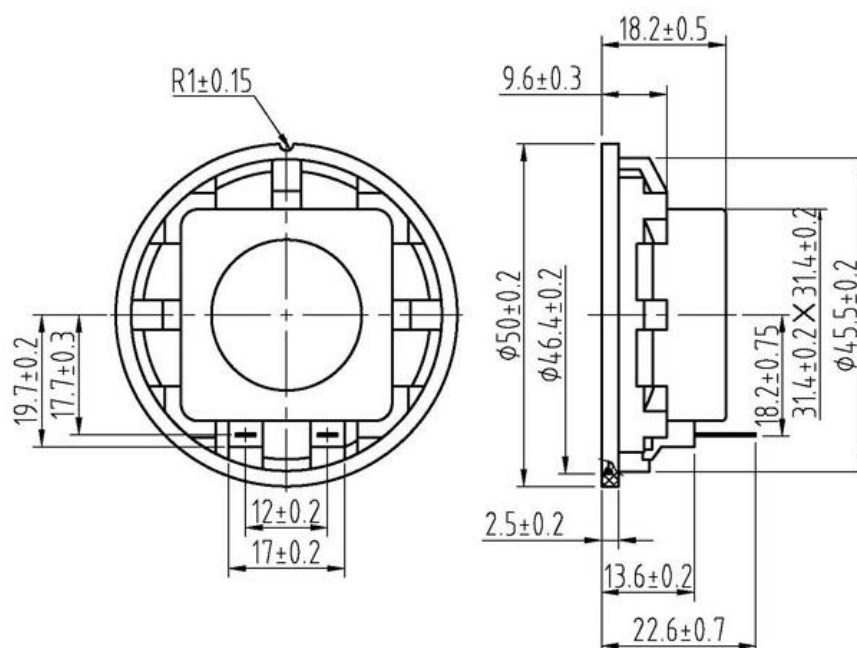
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5.DIMENSIONS

Unless otherwise specified, tolerance: ± 0.5 (unit:mm)



7	CAP	1	PET	
6	Diaphragm	1	PET	
5	VOICE COIL	1	Cu	
4	Yoke	1	SPCC	
3	Magnet	1	Ferrite	
2	PIN Terminal	1	Paper Cu	
1	Frame	1	ABS	
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

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