



# Dynamic speaker

**20×14 mm**

**With mesh gasket & cable  
and connector**

**CO2014L038BN8GMDAW**

## Revision

<b>Date</b>	<b>Version</b>	<b>Status</b>	<b>Changes</b>	<b>Approver</b>
2018/06/05	V0.1	Draft	Initial release	AX
2018/06/20	V0.2		Add weight and curve	AX
2018/07/12	V0.3		Modify waterproof level and drawing	AX
2018/08/07	V0.4		Modify SPL parameter	AX

## Specifications

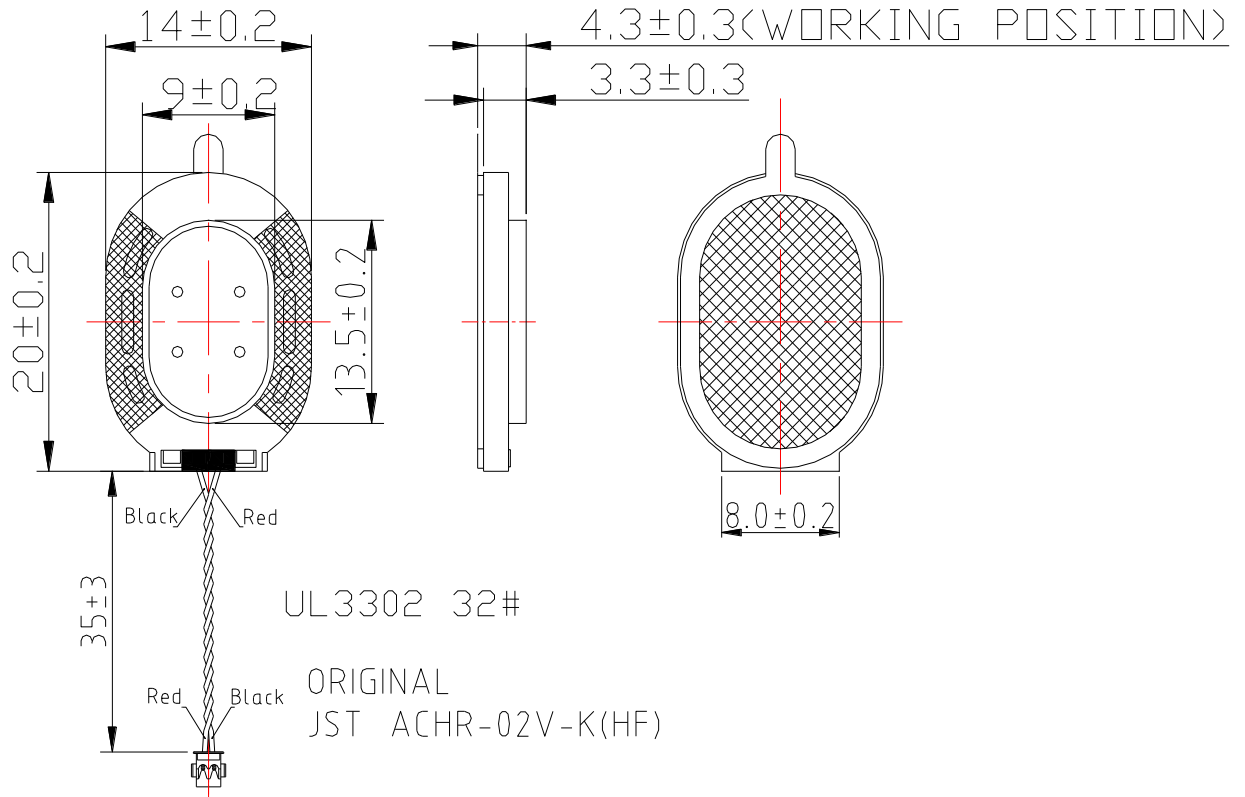
Parameter	Conditions/Description	Values	Units
Rated Input Power		0.5	W
Max Input Power		1.0	W
Rated Impedance	at 2.0 kHz	8±15%	Ω
Sound Pressure Level (S.P.L.)	at 2.0KHz in0.5W/0.1M average (0dB SPL=20μPa)	93±3	dB
	at 2.0KHz in1.0W/0.1M average (0dB SPL=20μPa)	95±3	dB
Resonant Frequency (Fo)	at 1.0 V	800±20%	Hz
Frequency Range	Output S.P.L. -10dB	Fo~20K	Hz
Distortion	at 1K Hz, input 0.1W,	< 10%	-
Magnet	NdFeB	F10*5.5*1.0	mm
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 5K Hz	2.0	V
Polarity	cone will move forward with positive dc current to“+” terminal		
Weight		1.7	g
Operating Temperature		-20~+60	°C
Storage Temperature		-30~+70	°C
Waterproof Rating		IP65	

Notes: All specifications measured at 5~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

**MECHANICAL DRAWING**

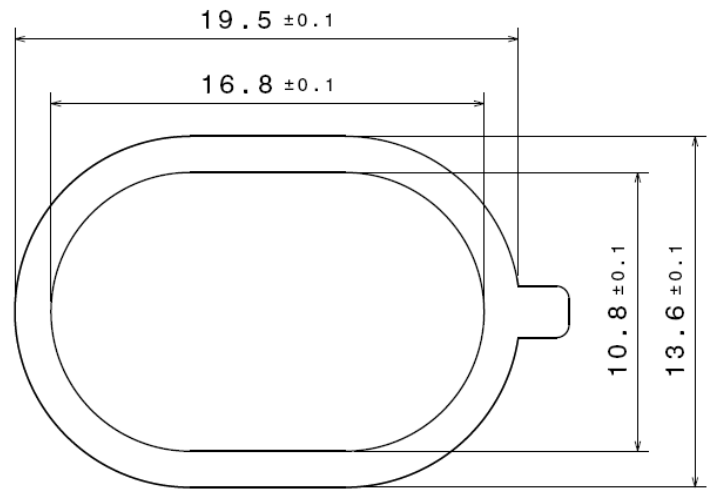
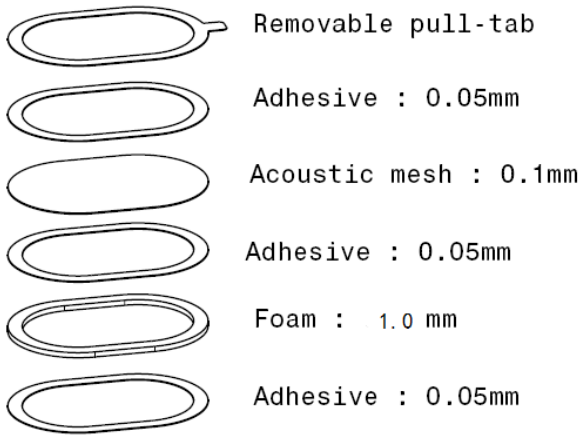
Units: mm

Tolerance:  $\pm 0.5\text{mm}$



**CONSTRUCTION DETAIL**

PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
1	Cap	1	Sus304C	
2	Diaphragm	1	Pen	
3	VOICE COIL	1	Cu	
4	Plate	1	SPCC	
5	Magnet	1	NdFeB	
6	PCB Terminal	1	FR4	
7	Frame	1	PBT	



# GASKET 14X20MDA

## RESPONSE CURVES

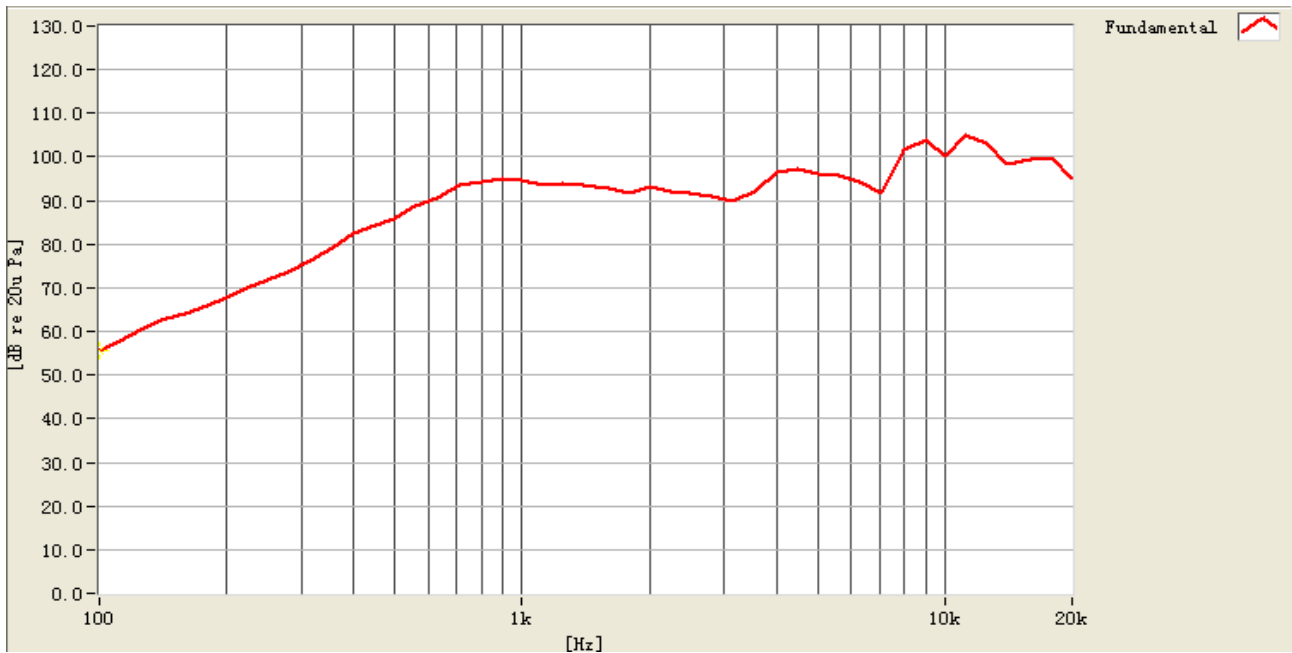
### Frequency Response Curve

Test condition: 0.5W/0.1M,



### Frequency Response Curve

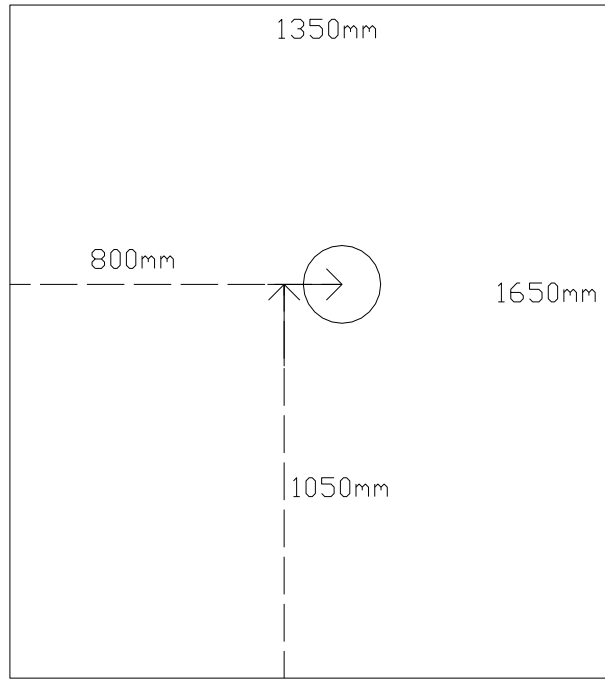
Test condition: 1.0W/0.1M,



## RELIABILITY TEST

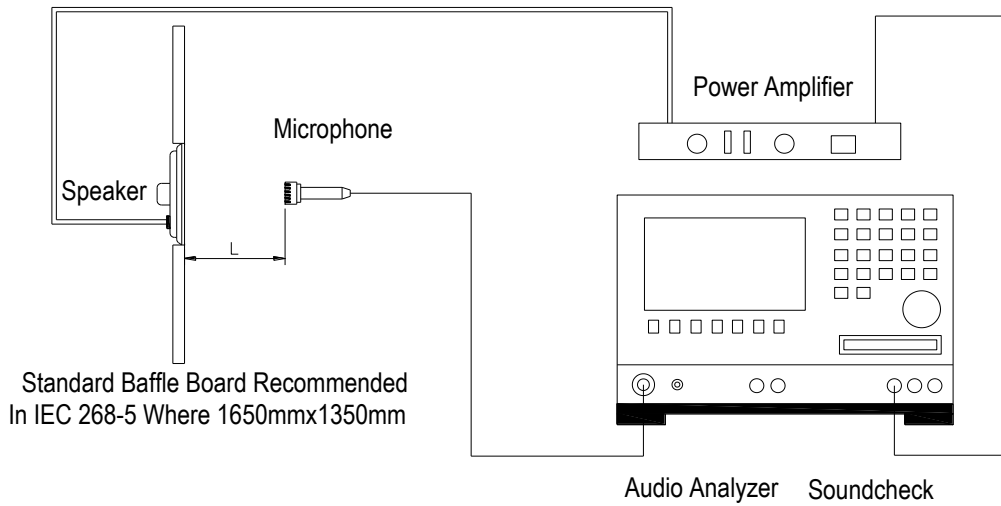
1	Reliability Test Performance	After any following test, parts should conform to original performance within $\pm 3$ dB tested with Rated Power, after 6 hours of recovery period.
2	High Temperature Test	96 hours at $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$
3	Low Temperature Test	96 hours at $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$
4	Humidity Test	96 hours at $+30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ , 92-95% RH
5	Temp./Humidity Cycle	<p>The part shall be subjected 5 cycles. One cycle shall be 6 hours and consist of</p> <p style="text-align: center;"> <math>90 \sim 95 \% \text{ RH}</math>  <math>65^{\circ}\text{C}</math>  <math>25^{\circ}\text{C}</math>  <math>0.5\text{hr}</math>    <math>6\text{hrs}</math>    <math>0.5\text{hr}</math>    <math>5\text{hrs}</math> </p>
6	Vibration Test	<p>Frequency: 10~55~10Hz Oct/min      Amplitude: 1.5mm</p> <p>Duration: 2 hours each of 3 perpendicular directions</p>
7	Drop Test	Drop the speaker contained in normal box onto the surface of 40mm thick board 10 times from the height of 75cm
8	Operation Life Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours
9	Termination Strength	<p>Apply 3.0N(0.306kg) to each terminal in horizontal direction for 30 seconds;</p> <p>Apply 2.0N(0.204kg) to each terminal in vertical direction for 30 seconds;</p>

**MEASURING METHOD**



**Fig. 1 Block Diagram for Measurement Method**

**Standard test condition of speaker**



**L=10cm**

**Fig. 2 Speaker Test Condition**

## PACKAGING

units: cm

Remark:

100pcs per tray

20 trays for unit , 1 units per carton

Total:2000 pcs per box

Size:51.5\*33\*21.5cm

