



Dynamic Loudspeaker

15 × 11 × 3.5 mm

CR1511L035UN8A

Revision

Date	Version	Status	Changes	Approver
2019/1/31	V0.1	Draft	Initial release	AX
2019/4/28	V0.2	Draft	Update print code	AX

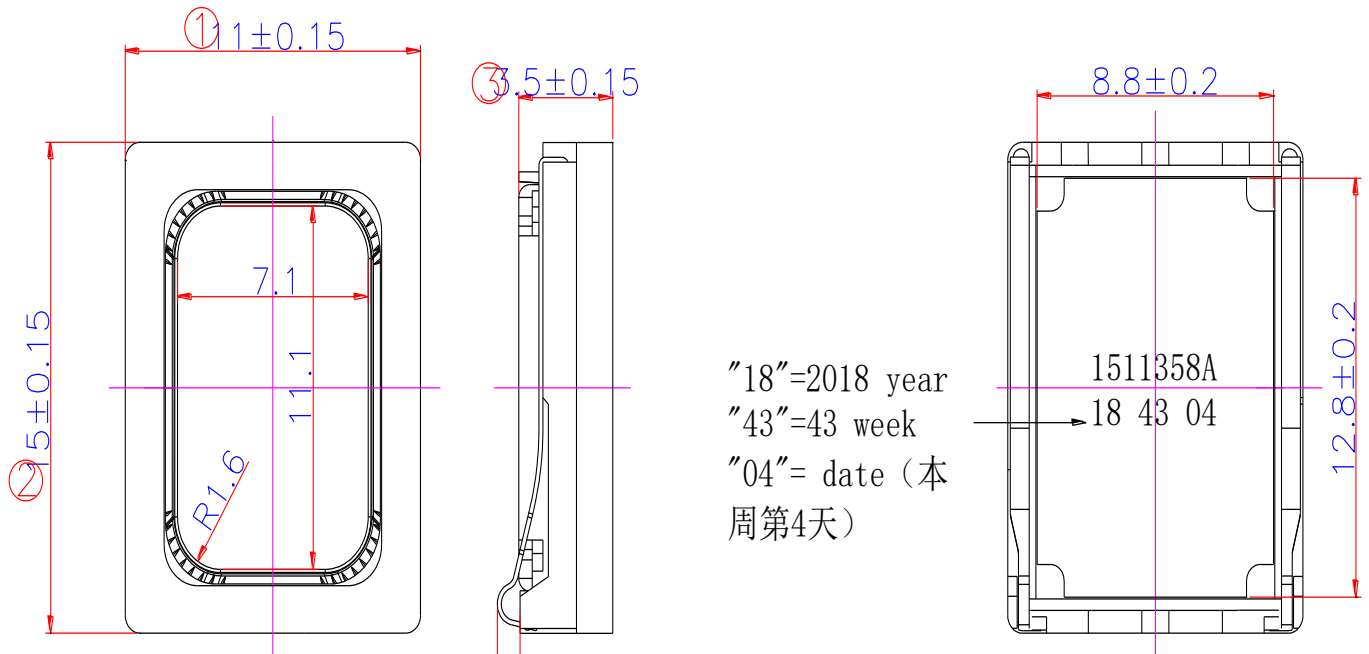
Specifications

Parameter	Conditions/Description	Values	Units
Rated Input Power	in 1cc closed box	0.7	W
Max Input Power	in 1cc closed box	1.0	W
Rated Impedance	1V input	8±15%	Ω
Sound Pressure Level	0.7W/0.1M at AVE 0.8K 1.0K 1.2K 1.5K Hz	89±3	dB
Resonant Frequency (Fo)	In Free air	550±20%	Hz
	in 1.0cc closed box	850±20%	
Frequency Range		F0-10k	Hz
Distortion	at 1K Hz, input 1.0V, in 1cc box	< 10%	-
Magnet	NdFeB		
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 20 kHz, in 1cc box	2.35	V
Polarity	cone will move forward with positive dc current to " + " terminal		
Weight		1.5	g
max membrane excursion		0.35	mm
Operating		-40~+85	°C
Storage Temperature		-40-+85	°C
WaterProof		NA	

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

MECHANICAL DRAWING

Units: mm

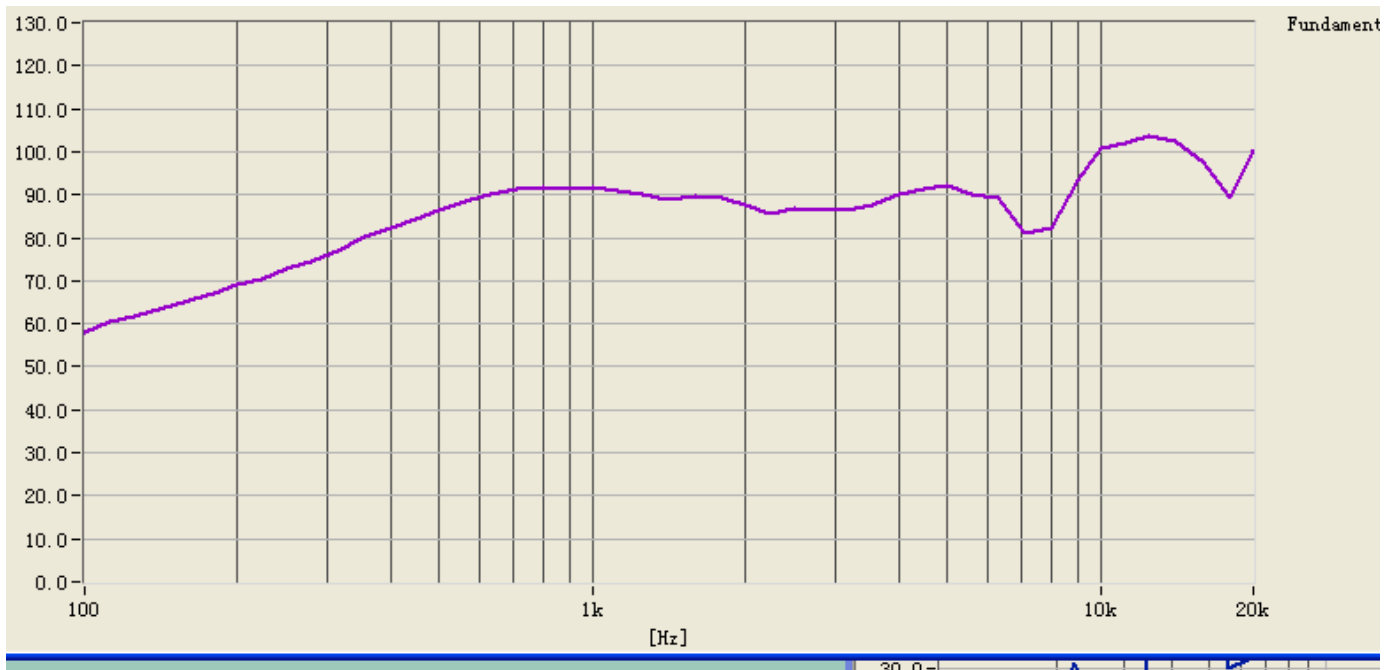
Tolerance: $\pm 0.15\text{mm}$ 

CONSTRUCTION DETAIL

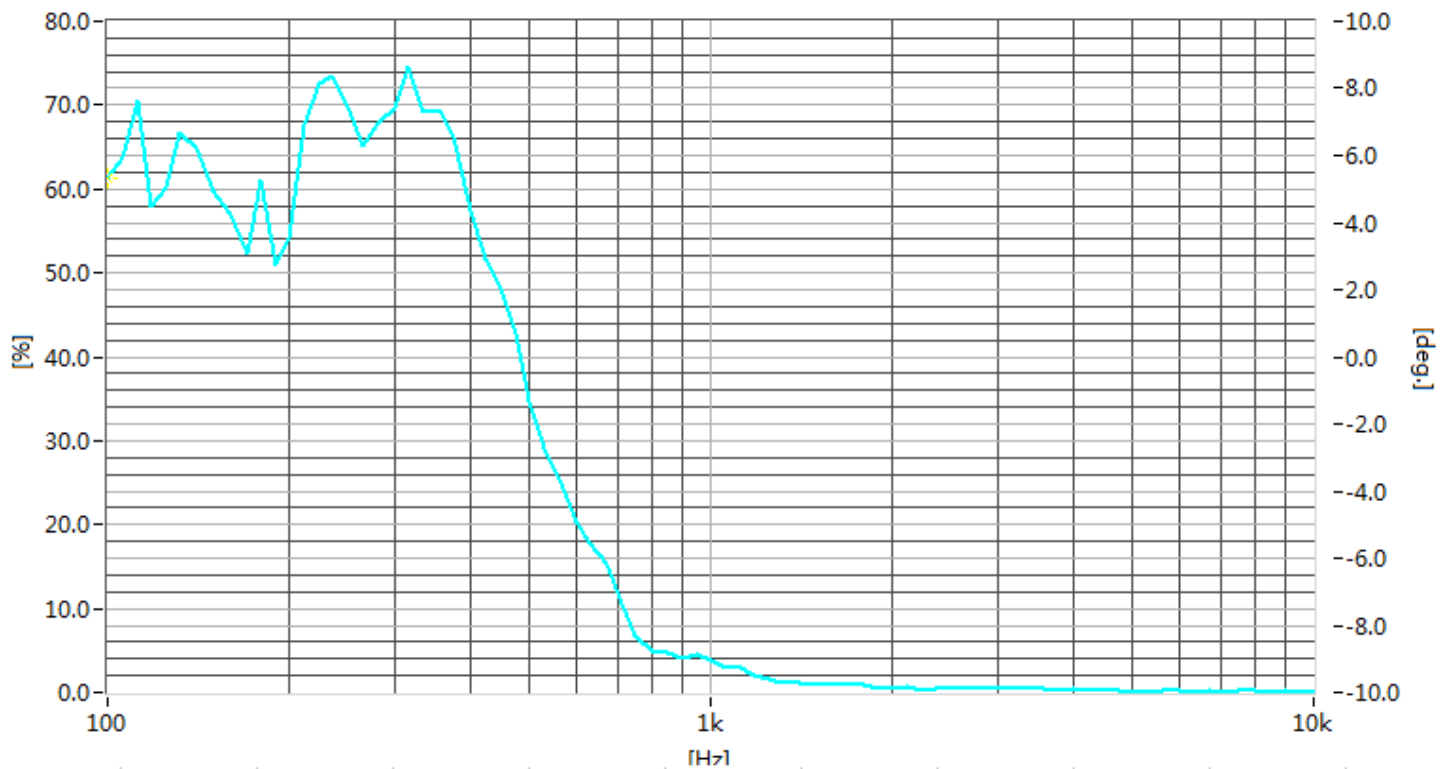
5	Diaphragm	1	PEEK	
4	VOICE COIL	1	COPPER WIRE	
3	Plate	1	SPCC	
2	Magnet	3	NdFeB	
1	Frame	1	PPA	
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

RESPONSE CURVES

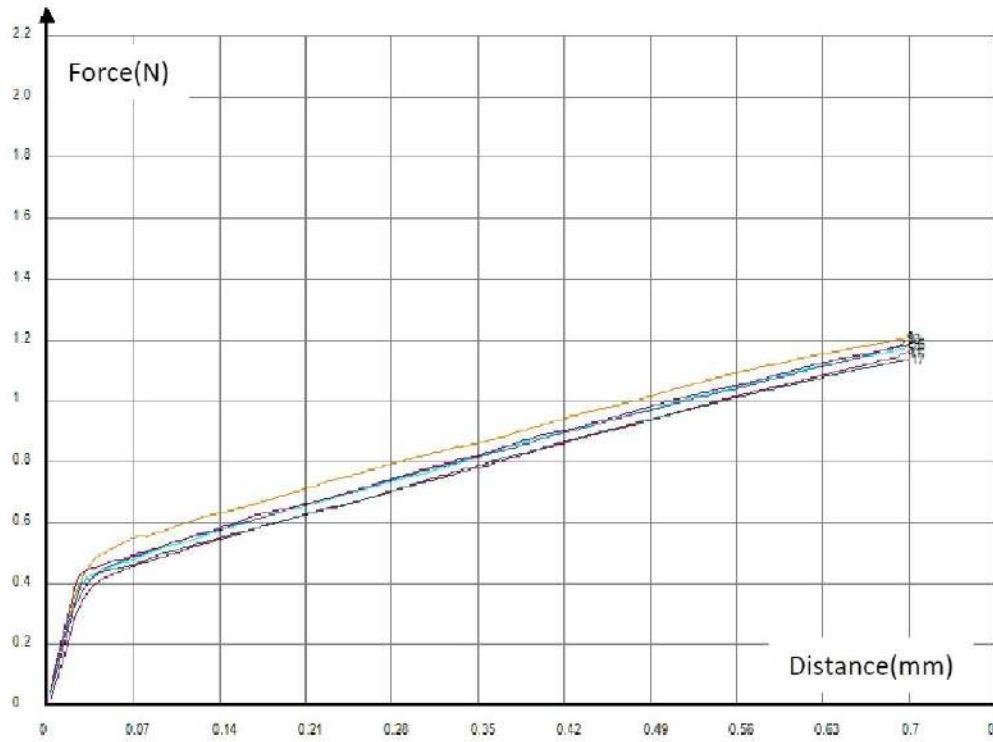
Frequency Response Curve



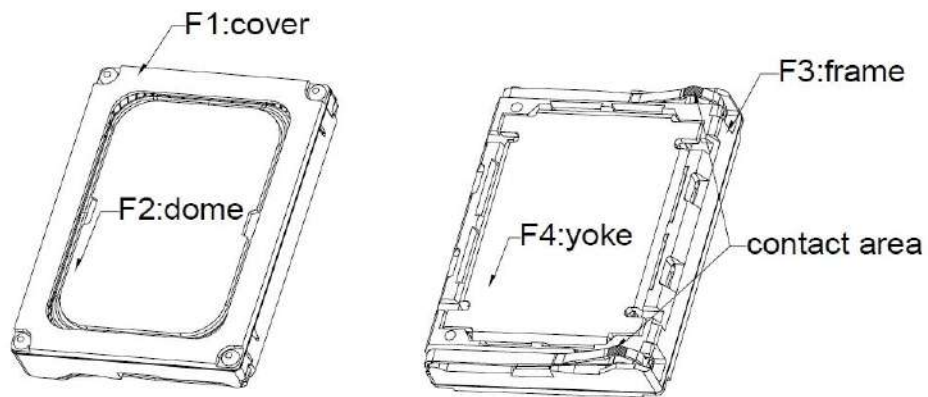
Total Harmonic Distortion Curve



spring force vs displacement curve

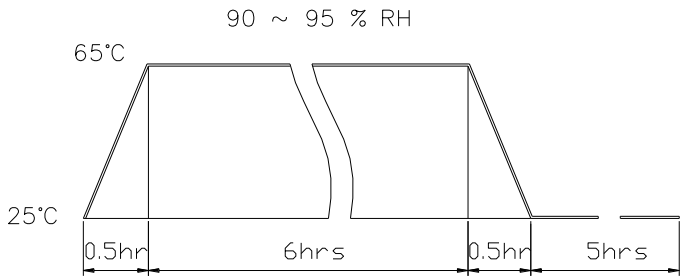


maximum force on speaker (N)



Max. Permitted compression forces:			
NO.	From	To	Maxforce
1	F1	F3	10N
2	F4	F3	10N
3	F2		0N

RELIABILITY TEST

1	Reliability Test Performance	After any following test, parts should conform to original performance within ± 3 dB tested with Rated Power, after 6 hours of recovery period.
2	High Temperature Test	96 hours at $+80^{\circ}\text{C}$
3	Low Temperature Test	96 hours at -40°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>The graph illustrates a temperature and humidity cycle. The temperature starts at 25°C, ramps up to 65°C over a 0.5-hour period, remains at 65°C for 6 hours, and then ramps down to 25°C over another 0.5-hour period. The humidity is maintained at 90% to 95% RH during the 6-hour high-temperature plateau. The total cycle duration is 7 hours.</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 Pink-Noise source at Rated Power for 96 Hours
9	Termination Strength	Apply 3.0N(0.306kg) to each terminal in horizontal direction for 30 seconds; Apply 2.0N(0.204kg) to each terminal in vertical direction for 30 seconds;

MEASURING METHOD

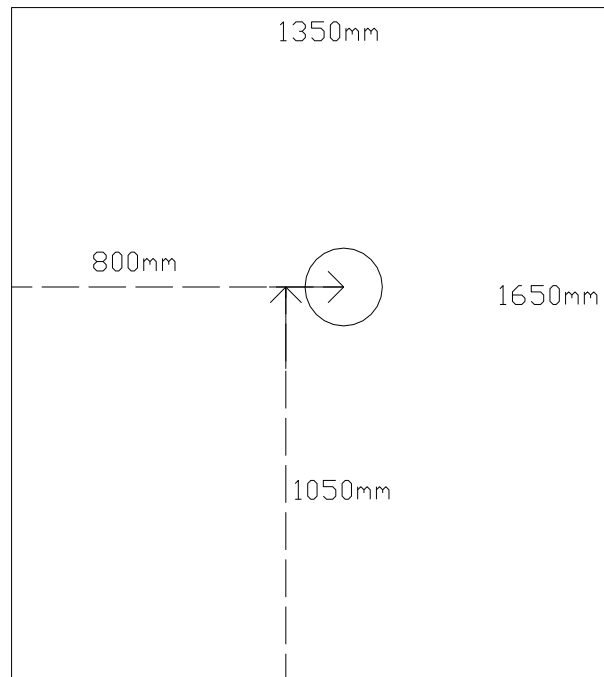


Fig. 1 Block Diagram for Measurement Method

Standard test condition of speaker

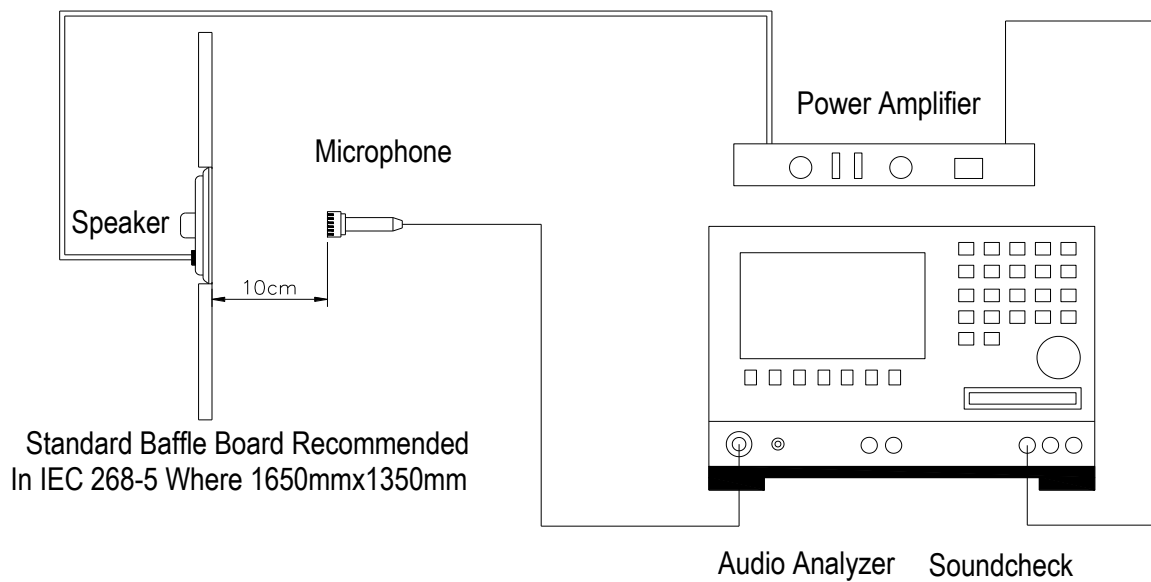


Fig. 2 Speaker Test Condition

PACKAGING

units: mm

每盘 100 个 100pcs of speaker in each tray

每箱 20 盘 20 trays in one carton

总计:2000 个 / 1 箱 Total:2000 pcs / 1 carton

毛重: 4.5KGS Gross Weight:4.5KGS

净重: 3.0KGS Net Weight: 3.0KGS

