



**Dynamic loudspeaker
with three magnets
& waterproof IPX6
18 × 13 × 2.5mm**

CR1813L025UN8-2

Revision

Date	Version	Status	Changes	Approver
2018/11/19	V0.1	Draft	First release	AX
2018/11/23	V0.2	Draft	Add waterproof level、 change THD &	AX
2019/01/17	V0.3	Draft	Add print code	AX
2019/02/19	V0.4	Draft	Add polarity and 0.7W/0.1m curves	AX
2019/02/22	V0.5	Draft	Update the frequency curves	AX
2019/11/26	V0.6	Draft	Update curves	AX
2021/05/18	V0.7	Draft	Add overshoot parameter	AX

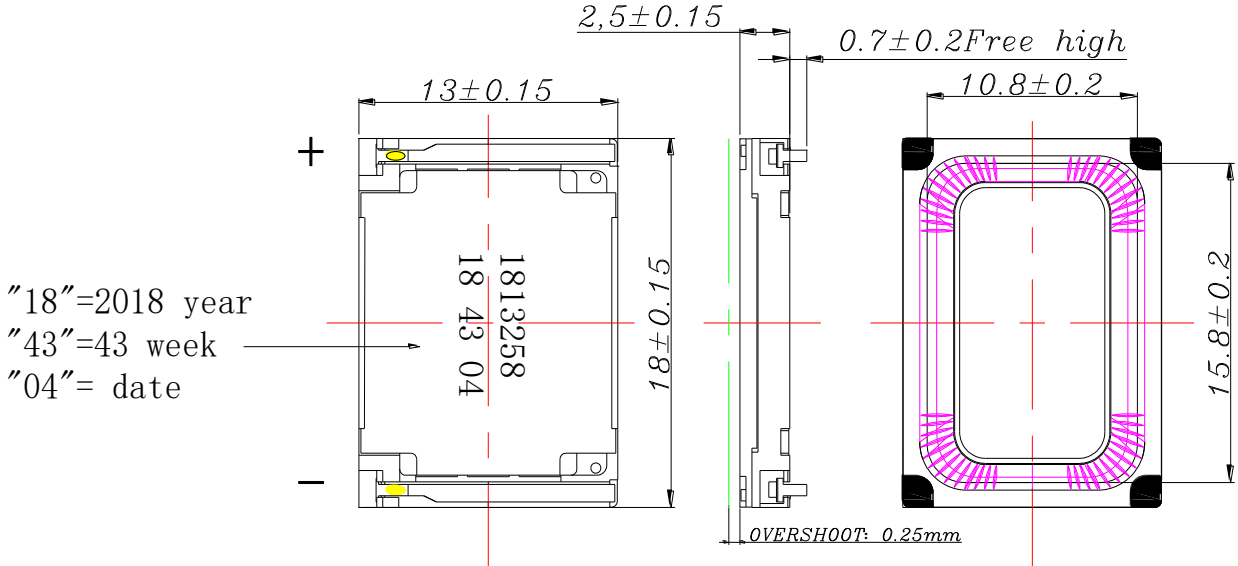
Specifications

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		8±15%	Ω
Sound Pressure Level (S.P.L.)	0.7W/0.1M at 2.0K Hz, in 1cc closed box	93±3	dB
	0.1W/0.1M at 2.0K Hz, in Free air	81±3	dB
Resonant Frequency (Fo)	in free air	500±20%	Hz
	in 1.0cc closed box	800±20%	Hz
Frequency Range		Fo~20K	Hz
Distortion	at 1K Hz, input 0.1W, in 1cc box&in Free air	< 5%	-
Magnet	NdFeB		
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 20 kHz, in 1CC BOX	2.37	V
Polarity	cone will move forward with positive dc current to "+" terminal		
Weight		1.5	g
Operating		-20~+60	°C
Waterproof Rating		IPX6	

Notes: Above Measuring condition under temperature :15~35°C R.H. 25~75%. Accordig to standard GB/T9396-1996

MECHANICAL DRAWING

Units: mm
Tolerance: ±0.15mm



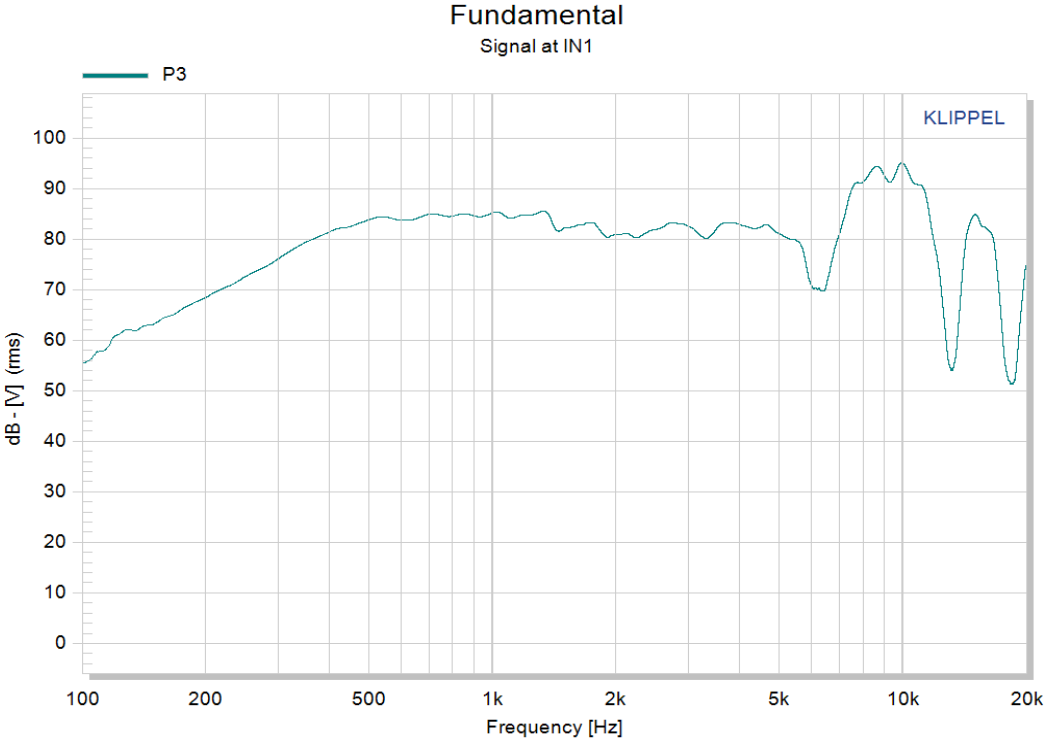
CONSTRUCTION DETAIL

8	弹片 SPRING TERMINAL	SUS	2	
7	前盖 FRONT CAP	PPA	1	
6	音圈 VOICE COIL	COPPER WIRE	1	
5	膜片 DIAPHRAGM	PEEK	1	
4	U 铁 U YOKE	SPCE	1	
3	极片 POLE PIECE	SPCC	1	
2	磁钢 MAGNET	N42	3	
1	主架 FRAME	PPA	1	
编号 No.	零件名称 PART NAME	材料 MATERIAL	数量 Q'TY	备注 REMARK

RESPONSE CURVES

Frequency Response Curve

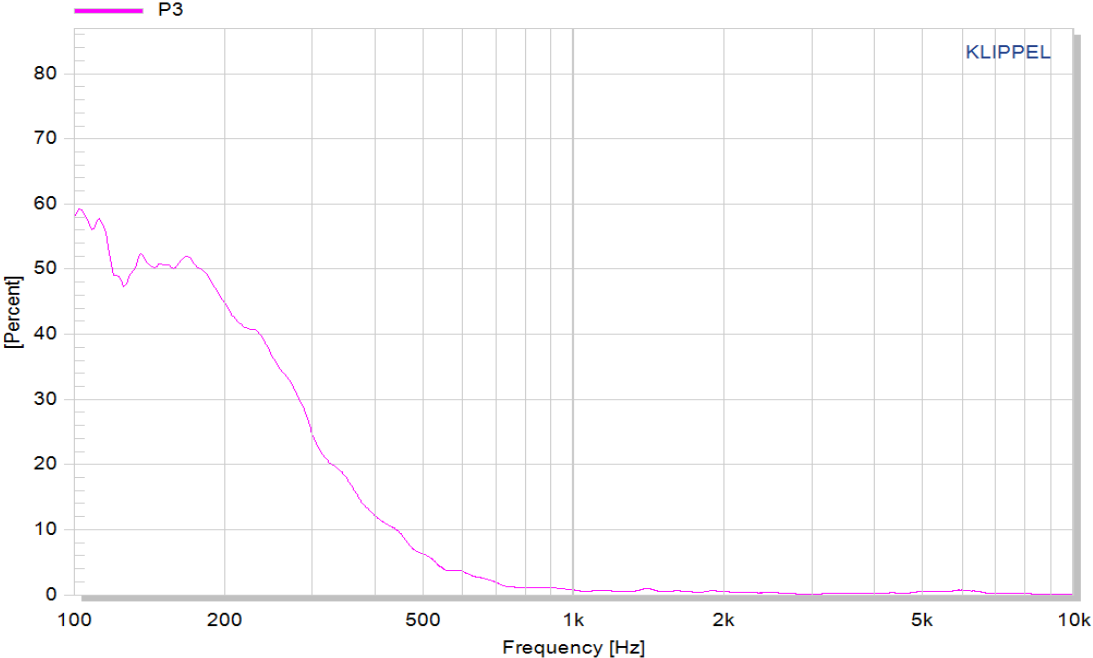
Test condition: 0.1W/0.1M, in Free air



THD

Harmonic distortion (relative)

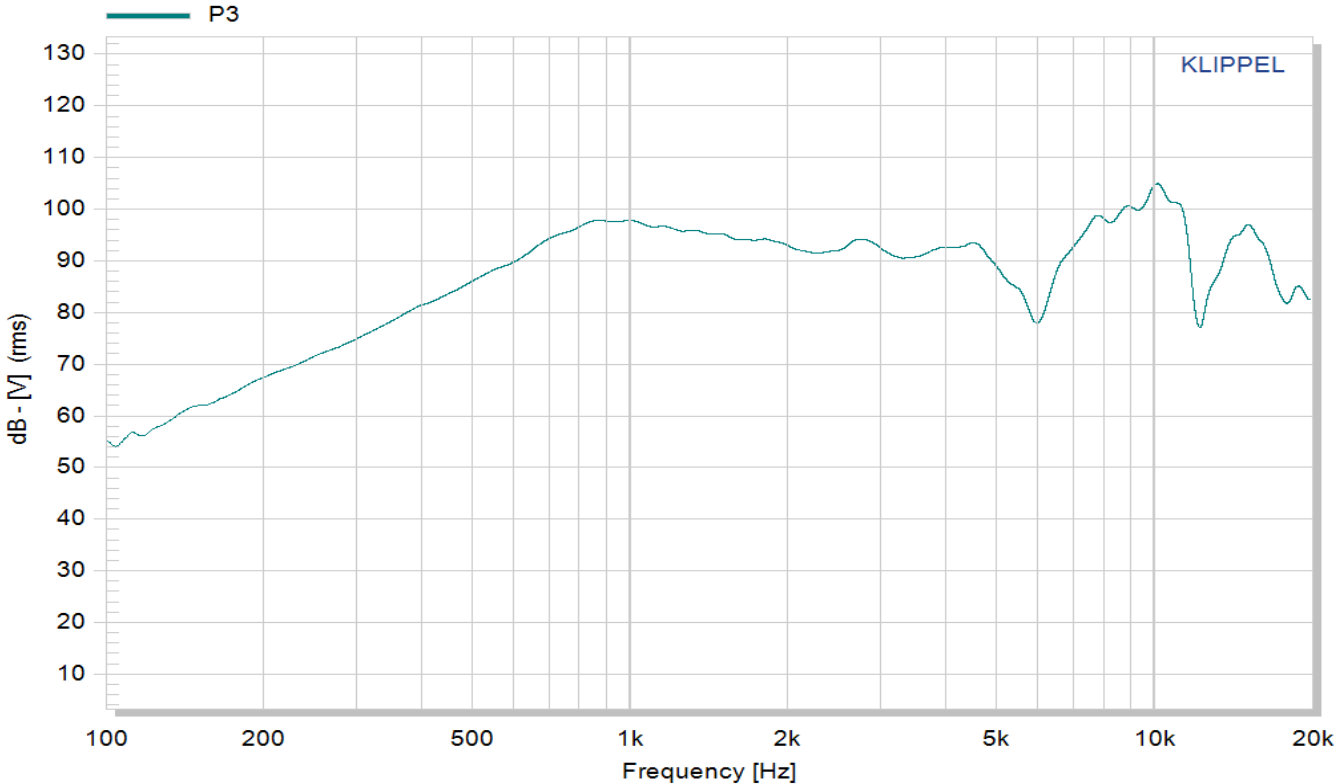
Signal at IN1



Test condition: 0.7W/0.1M, in 1cc box

Fundamental

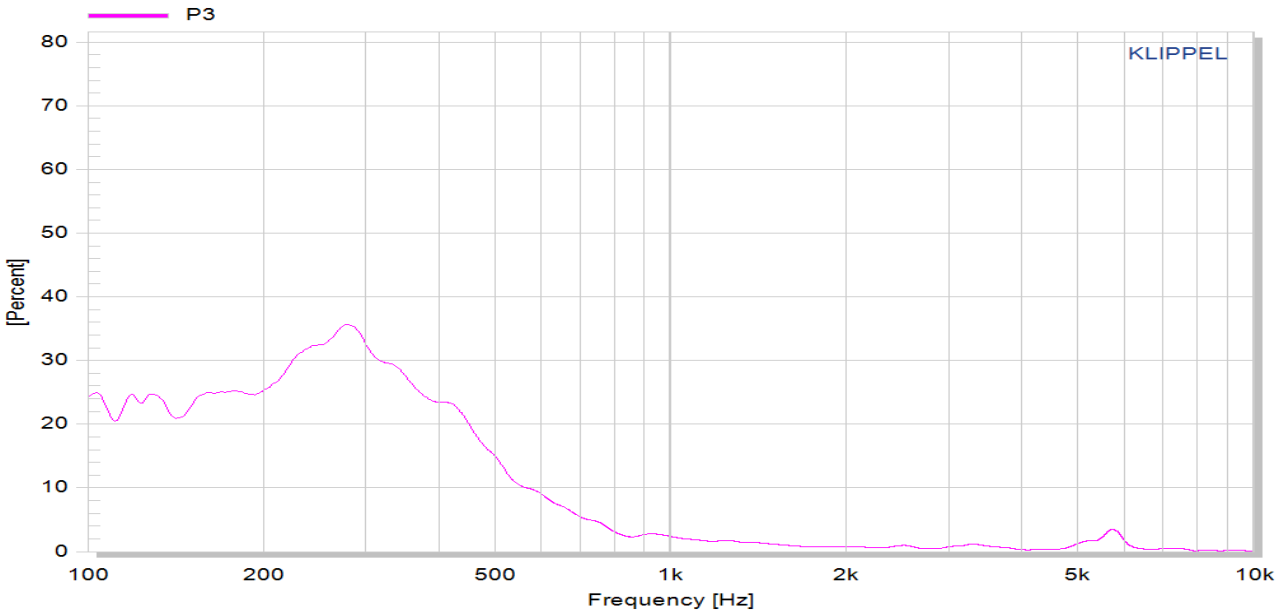
Signal at IN1



THD

Harmonic distortion (relative)

Signal at IN1



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 $+60^{\circ}\text{C}\pm 3^{\circ}\text{C}$
3	Low Temperature Test	96 hours at $-20^{\circ}\text{C}\pm 3^{\circ}\text{C}$
4	Humidity Test	96 hours at $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$, 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>
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

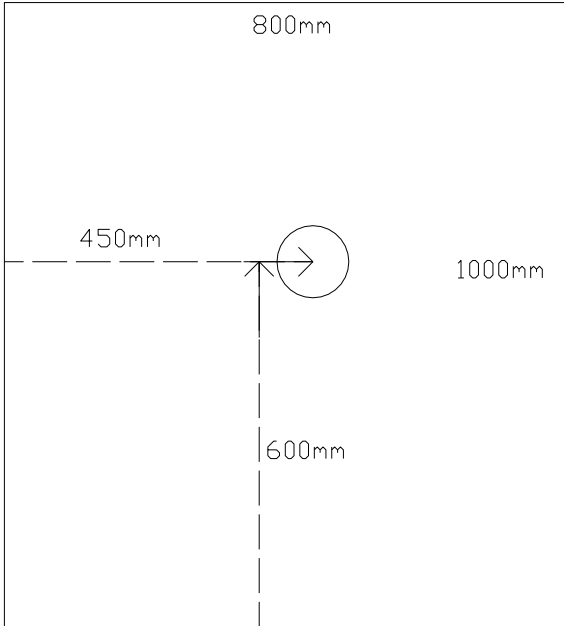


Fig. 1 Block Diagram for Measurement Method

Standard test condition of speaker

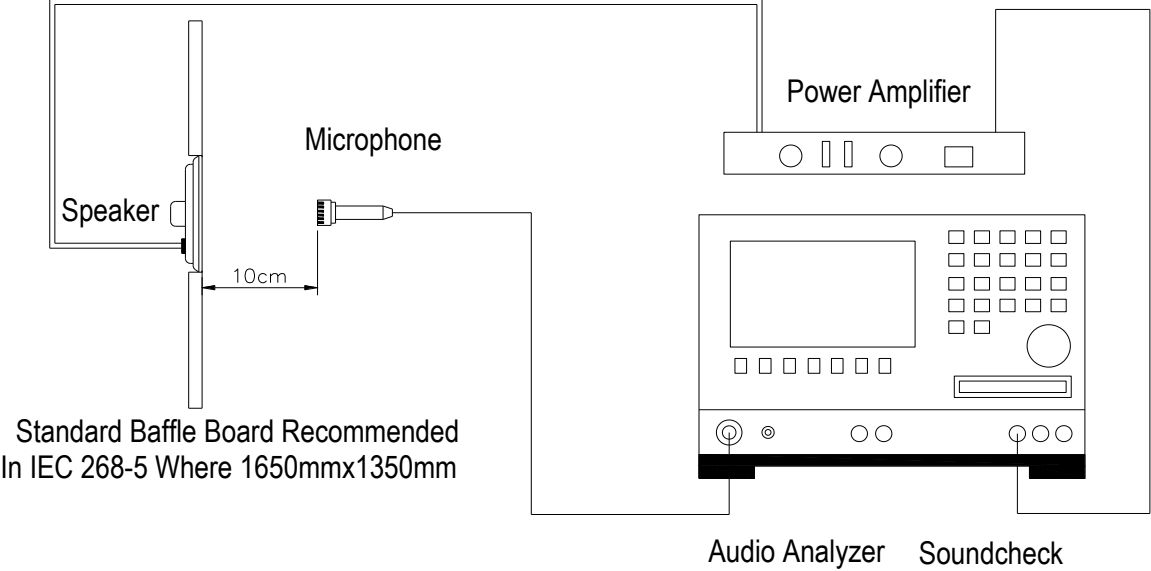


Fig. 2 Speaker Test Condition

PACKAGING

units: mm

100pcs of speaker in each tray

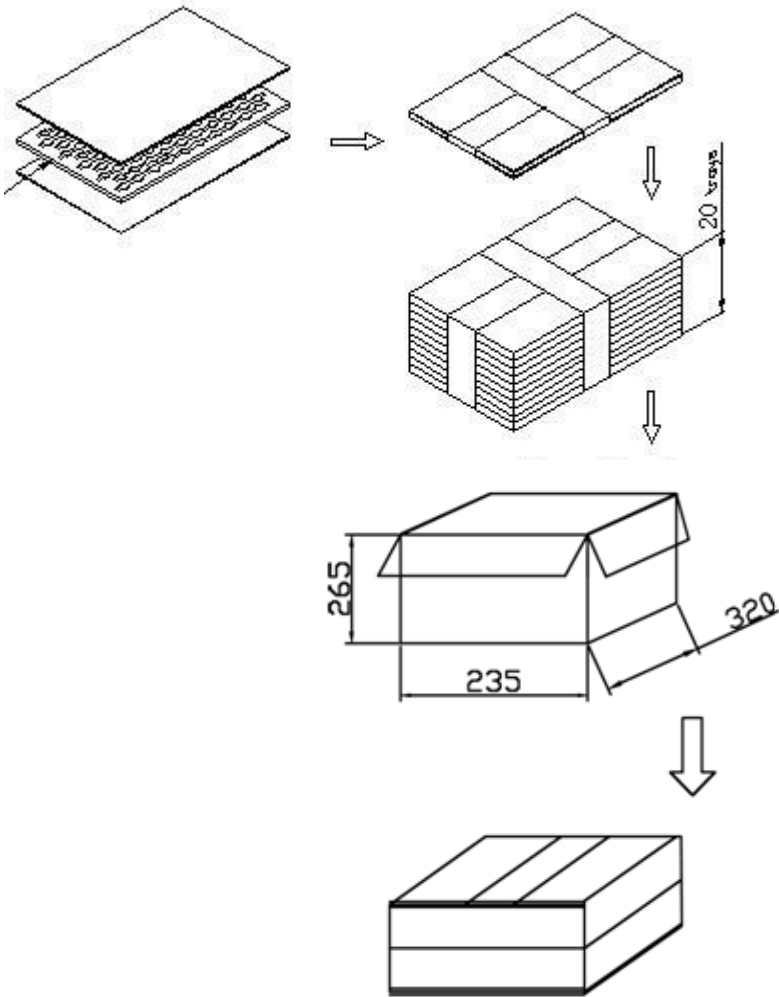
20 trays in one carton

Total:2000 pcs / 1 carton

Gross Weight: 4.5 KGS

Net Weight: 3.0 KGS

增加内包装提手



6	↑
↑	↑
↑	↑
MODEL:	
QTY:	PCS
N.W:	Kg
G.W:	Kg
SIZE:	32X23.5X26.5cm
LOT NO	

ITEM:
C/NO:
MADE IN CHINA