

General Description

12 x 10 x 3.0mm Mobile Speaker



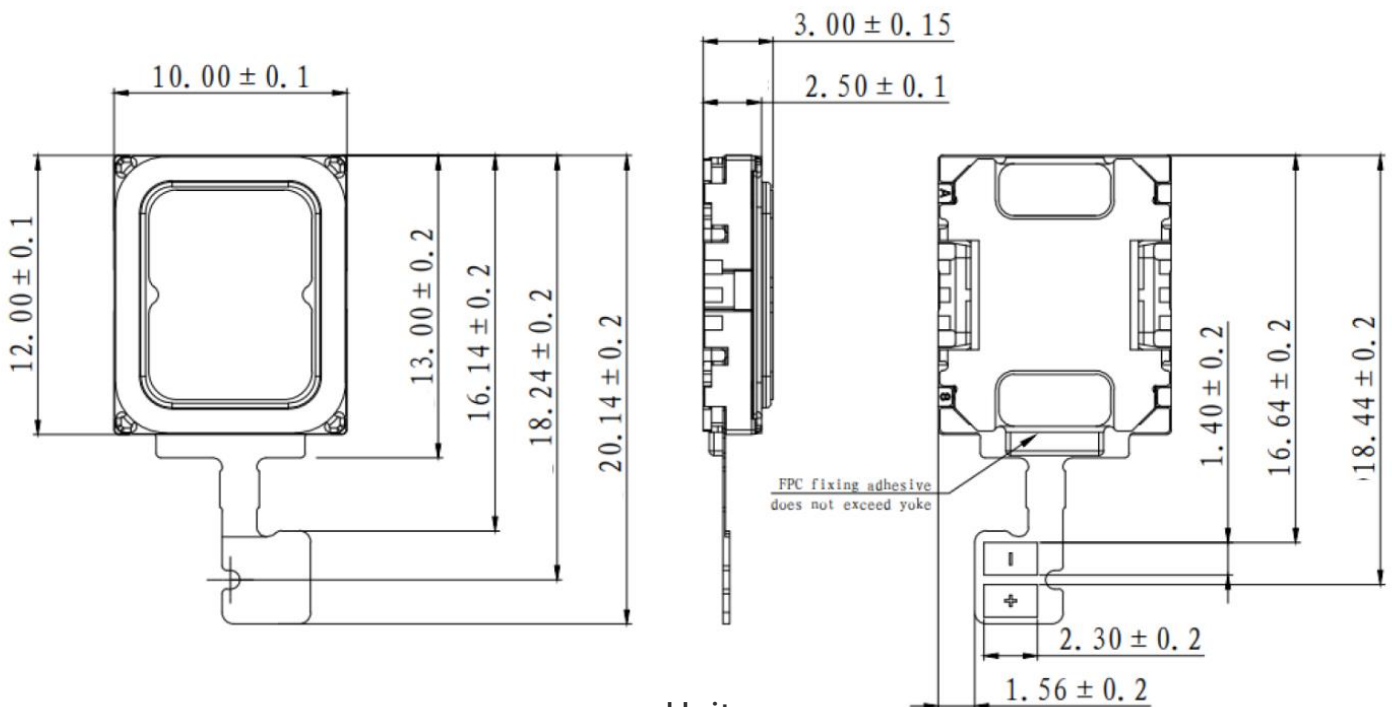
IP67

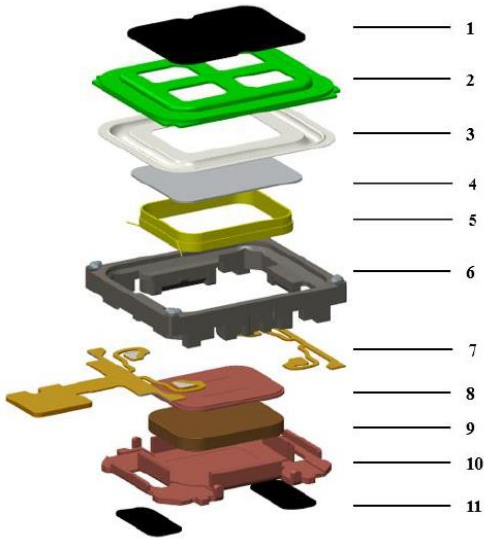


ELECTRICAL SPECIFICATIONS

Parameters		Value	Unit
Resonance Frequency	@ 5cc box, 0.59V	750±100	Hz
DC Resistance		5.5±0.7	Ω
Impedance	@ 2kHz/0.59V/10cm Baffle/5cc	6±10%	Ω
Rated Noise Power		0.058	W
Short Time Power, max		0.7	W
Sound Pressure Level	@ 5cc box, 0.59V, 300Hz	62.5±3.5	dB
THD	@ 5cc box, 0.59V	100 - 20	kHz
Operating Temperature Range		-20 ~ +70	°C
Storage Temperature Range		-40 ~ +85	°C
Rub & BUZ	@ A sine sweep among 100-1000Hz will not result in any buzzing or extraneous sound., sweep 2-3 cycles, 1 sec for each cycle	1.6	V

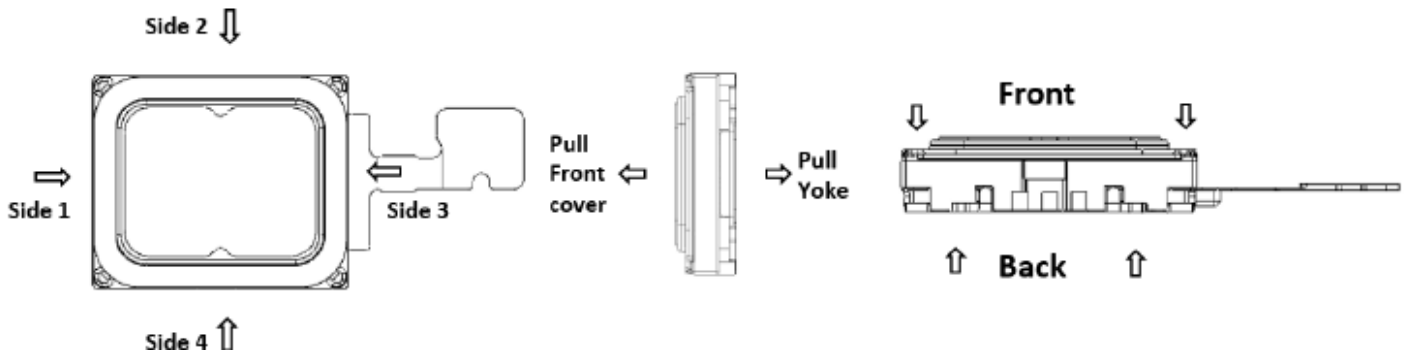
DIMENSIONS





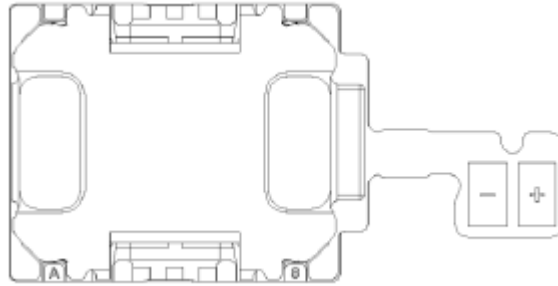
NO.	Part Name	Material	Quantity
1	Front mesh	Smesh	1
2	Cover	Steel	1
3	Diaphragm	/	1
4	Dome	Aluminum composite	1
5	Coil	Copper	1
6	Frame	Plastic	1
7	FPC	FPC	2
8	Plate	Steel	1
9	Central magnet	NdFeB	1
10	Yoke	Steel	1
11	Back mesh	Smesh	2

PRESSURE SPECIFICATION



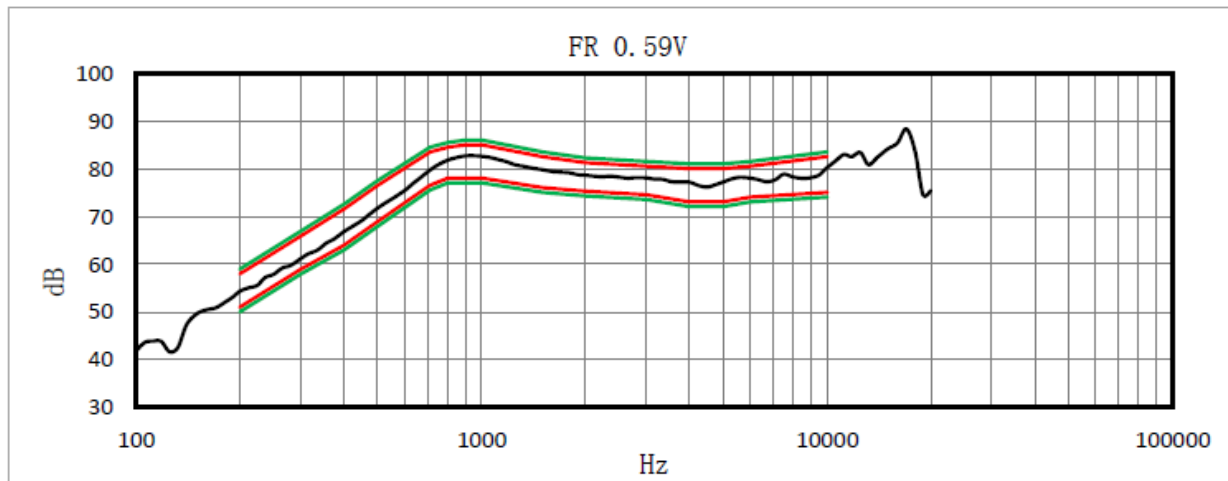
From	To	Maximum permanent force [N]	Max handing force[N]
Yoke	Front cover	15	15
back of frame	front cover	10	10
Side 1	Side 3	10	/
Side 2	Side 4	10	/
membrane		0	0
Pull force of yoke		10	10
Pull force of front cover		10	10

Polarity and Magnetic



FREQUENCY CHARACTERISTICS

Test condition : sine wave, 100HZ ~ 20KHz, 0.59V 5cc back cavity 10cm baffle



Speaker Mode Frequency Response

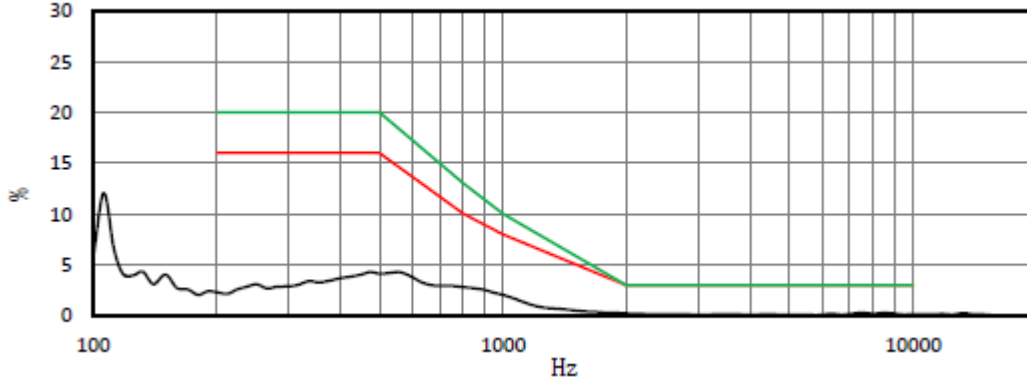
Frequency (Hz)	Upper		Frequency (Hz)	Lower	
	Before reliability	After reliability		Before reliability	After reliability
200	58	59	200	51	50
300	66	67	300	59	58
400	71.5	72.5	400	64	63
500	76.5	77.5	500	69	68
710	83.5	84.5	710	76.5	75.5
800	84.5	85.5	800	78	77
900	85	86	900	78	77
1000	85	86	1000	78	77
1500	82.5	83.5	1500	76	75
2000	81.3	82.3	2000	75.3	74.3
3000	80.5	81.5	3000	74.5	73.5
4000	80	81	4000	73	72
5000	80	81	5000	73	72
6000	80.5	81.5	6000	74	73
10000	82.5	83.5	10000	75	74

Speaker Mode Frequency Response Limit Template

THD

Test condition : sine wave, 100HZ ~ 20KHz, 0.59V 5cc back cavity 10cm baffle

THD 0.59V



Speaker Mode Total Harmonic Distortion

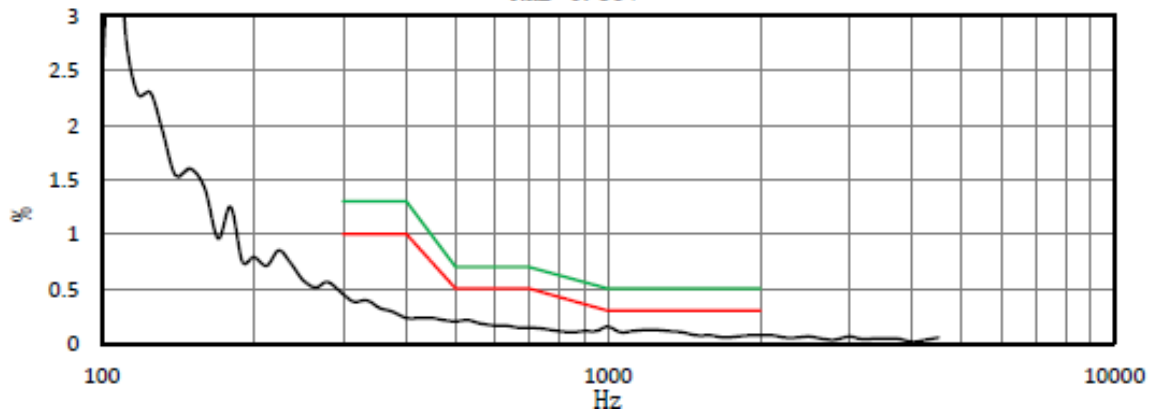
Frequency (Hz)	Before reliability	After reliability
200	16	20
500	16	20
800	10	13
1000	8	10
2000	3	3
10000	3	3

SpeakerMode THD Limit Template

RB 10-35

Test condition : sine wave, 100HZ ~ 4.5KHz, 0.59V 5cc back cavity 10cm baffle

R&B 0.59V



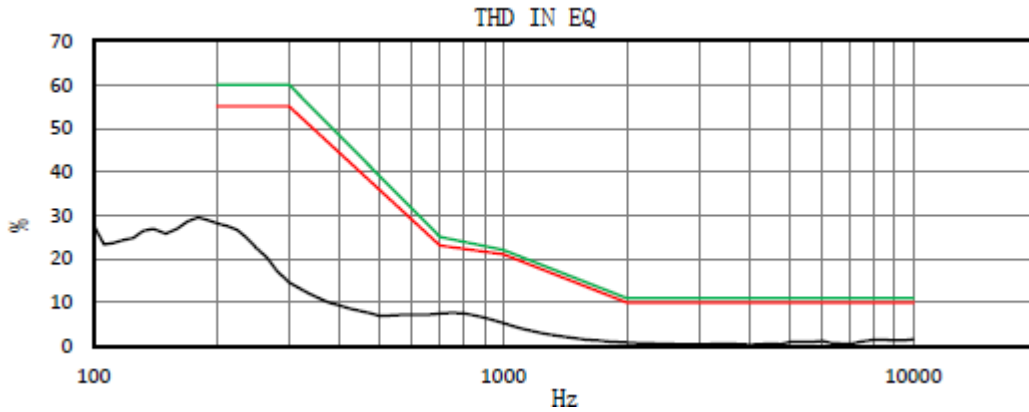
SpeakerMode High Order Harmonic Distortion

Frequency (Hz)	Before reliability	After reliability
300	1	1.3
400	1	1.3
500	0.5	0.7
700	0.5	0.7
1000	0.3	0.5
2000	0.3	0.5

Speaker Mode HOHD Limit Template

EQ THD 2-5

Test condition : sine wave, 100HZ ~ 10KHz, EQ5cc back cavity 10cm baffle



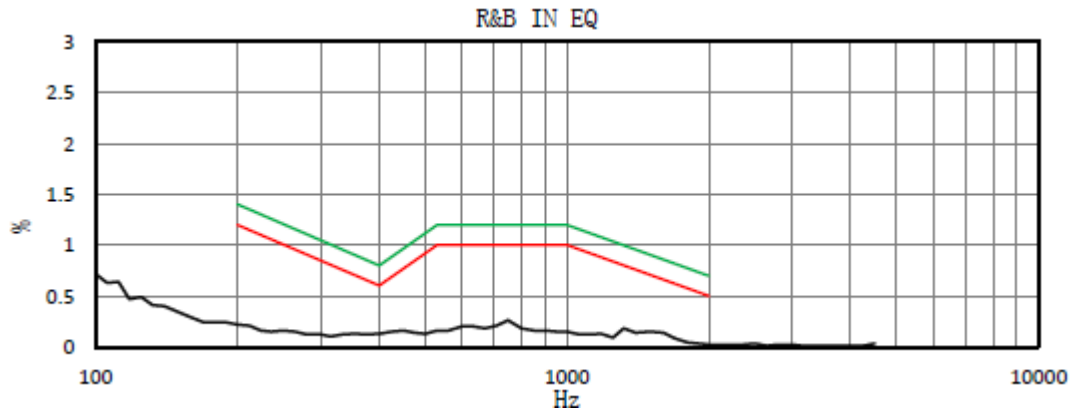
SpeakerMode Total Harmonic Distortion IN EQ

Frequency (Hz)	Limit-Before reliability	Limit-After reliability
200	55	60
300	55	60
700	23	25
1000	21	22
2000	10	11
10000	10	11

SpeakerMode THD Limit Template IN EQ

EQ RB 10-35

Test condition : sine wave, 100HZ ~ 4.5KHz, EQ5cc back cavity 10cm baffle



SpeakerMode High Order Harmonic Distortion IN EQ

Frequency (Hz)	Limit-Before reliability	Limit-After reliability
200	1.2	1.4
400	0.6	0.8
530	1	1.2
1000	1	1.2
2000	0.5	0.7

Speaker Mode HOHD Limit Template IN EQ

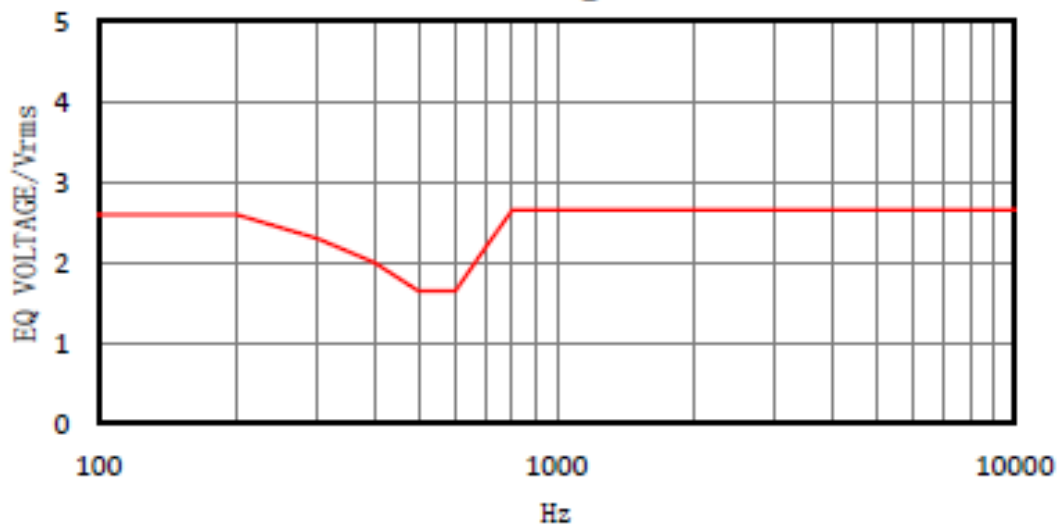
TS Parameters

TS parameter			
No.	Item	Value	Unit
1	Re	6	Ω
2	Fs	750	Hz
3	Mms	36	mg
4	Cms	1.0	mm/N
5	Bl	0.4	N/A
8	Sd	75	mm ²
9	Xmax	0.4	mm
10	Tmax	100	°C
11	Tcoef	0.00393	1/°C

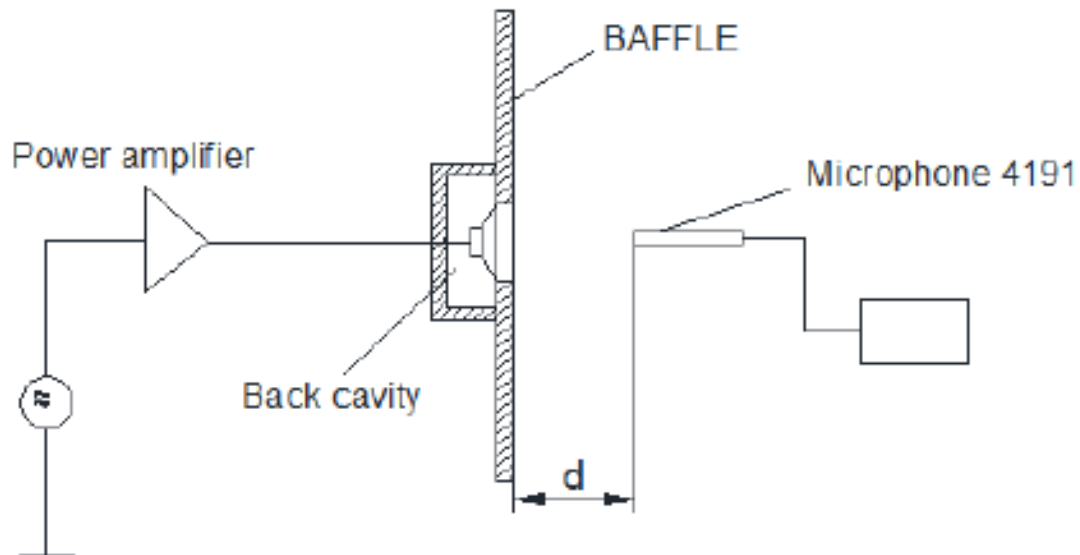
EQ Voltage(reference)

Frequency(Hz)	EQ/V
100	2.6
200	2.6
300	2.3
400	2
500	1.65
600	1.65
700	2.2
800	2.65
900	2.65
1000	2.65
10000	2.65

EQ voltage curve



TEST METHOD



APPROVAL

DRAWN BY	AR, June 26, 2024
APPROVED BY	CP, June 26, 2024
REVISION	A, Initial Release



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