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	DK	P/N: OWS-434320TA-4A-W		Revision: 01



SPECIFICATION FOR APPROVAL

Speaker

Part Number	OWS-434320TA-4A-W
Note	This item is in compliance with the following requirements: 1. RoHS directive 2. REACH
Customer P/N	

Ole Wolff	Signature / Date	Prepared	Checked	Approved
		WangMenghua 2023.04.07		

Customer	Signature / Date	Confirmation		

REVISION NOTES:

Date	Rev.	Description of Revision
2021.12.15	00	Initial Release
2023.04.07	01	Updated the low storage temperature from -25° C to be -30° C

OLE WOLFF ELEKTRONIK A/S Roedengvej 25 4180 Soroe Denmark TEL: +45 57833830 FAX: +45 57820019	OLE WOLFF ELECTRONICS INC. 1525 McCarthy Blvd, Suite 1093 Milpitas, Ca 95035 USA TEL: +1 408 888 8413	OLEWOLFF ELEKTRONIK GmbH Schulstrasse 15A. DE-25451 Quickborn. Germany TEL: +49 (0) 4106 765900 FAX: +49 (0) 4106 627297	OLEWOLFF ELECTRONICS 3 Bedford Street, Woburn, Bedfordshire MK17 9QB, ENGLAND TEL: +44 (0) 1525 290755 FAX: +44 (0) 1525 290855	OLE WOLFF ELEKTRONIK Yliopistonkatu 26 (P.O.BOX 257) FI-40101 Jyväskylä Finland TEL: +358 14 338 3050 FAX: +358 14 338 3059	OLE WOLFF (ASIA) LTD. Unit B, 19/F, Bold Win Ind. Bldg., No. 16-18 Wah Sing St., Kwai Chung, N.T., H.K. TEL: +852 2424 3274 FAX: +852 2424 2219	OLE WOLFF LTD. 5 Floor, Block G, WenTao Industrial Park, YingRenShi, Bao'an District, Shenzhen, PRC TEL: +86 755 82612542 TEL: +86 755 26406156
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1. SCOPE

THIS SPECIFICATION IS APPLIED FOR A DYNAMIC SPEAKER.

2. TEST CONDITIONS

TEMPERATURE : 18°C ~ 22°C

HUMIDITY : 65% +/-5% (R.H.)

ATMOSPHERE : 860 ~ 1060 hPa

3. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -20° C ~ 60° C

STORAGE TEMPERATUR RANGE: -30° C ~ 70° C

4. MECANICAL LAYOUT & DIMENSIONS

DIMENSIONS : SHOWN IN FIGURE.3

NET WEIGHT: approx 41.2 g

5. ELECTRICAL AND ACOUSTICAL CHARACTERISTICS

1	IMPEDANCE(额定阻抗)	$4 \pm 15\% \Omega$ /1.0KHz/2V
2	SOUND PRESSURE LEVEL(SPL)	103±3 dB(1.0W/0.1M) AT (1~2KHZ)AVE MEASUREMENT AS SHOWN IN FIGURE.2
3	FREQUENCY RESPONSE(有效频宽)	F0~20KHz FIGURE.2
4	RESONANCE FREQUENCY (最低共振频率 Fo)	230± 20% Hz /2.0V
5	TOTAL HARMONIC DISTORTION (总谐波 THD)	As shown in figure 3.
6	BUZZ & RATTLE(振音)	DYNAMIC SPEAKER MUST BE FREE AUDIBLE NOISE AT 4Vrms, SINE WAVE BETWEEN 100 AND 20KHz FREQUENCY RANGE.(正弦波,4V, 100~20KHz)
7	MAGNET(磁铁)	NdFeB $\phi 15.5 \times 5$ mm,15.5×2mm
8	INPUT POWER (功率)	(Nom./Max.): 3W / 5.0 W (FO-20KHz)
9	Waterproof Grade	IP54

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6. RELIABILITY TEST REQUIREMENTS.

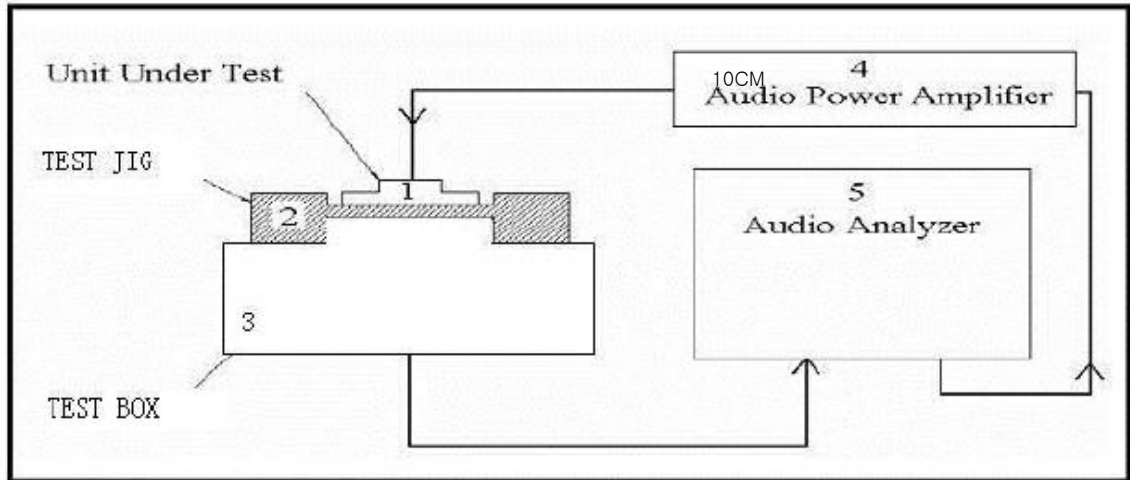
After any following tests the S.P.L should not deviate more than $\pm 3\text{dB}$ from initial value.		
N o.	ITEMS	TEST CONDITION
1.	High Temp. Test 高温测试	Keep 96 hours at $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check 在 $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 环境下保持 96 小时, 在室温下静置 3 小时后检查喇叭
2.	Low Temp. Test 低温测试	Keep 96 hours at $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check 在 $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 环境下保持 96 小时, 在室温下静置 3 小时后检查喇叭
3.	Humidity Test 湿度测试	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 check 在 $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 和 95%湿度下保持 96 小时, 在室温下静置 3 小时后检查喇叭
4.	Thermal cycle Test(高低温循环测试)	Low temperature: $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$,High temperature: $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$,cycle:1hour/cycle each, total 5 cycles.(在 $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}/+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 高低温循环放置, 1 小时/循环, 共 5 循环)
5.	Vibration Test 振动测试	10~55~10Hz sin-wave sweep 15min.5G(constant);X,Y,Z 3 direction,2hours each, total 6 (10~55~10Hz 正弦波持续 15 分钟,X,Y,Z 三个方向, 2 小时/每个方向, 共 6 小时)
6.	DropTest (跌落测试)	Free drop from 100cm height to a board of 20mm thick x,y, z 6 direction. 1 times each, total 6 times. (整箱喇叭,1m 跌落, 三角六面各一次)
7.	Load Test(功率实验)	Rated Power 3W IEC60268-1 is applied for 96 hours(滤波: 80~20KHz)
8.	Max Power Test (最大功率实验)	Max Power 5W IEC60268-1, 1min on, 2min off, 10cycles. 5W,IEC60268-1, 1 分钟开,2 分钟关, 10 个循环

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7. ELECTRICAL CHARACTERISTICS MEASUREMENT (Fig.1)

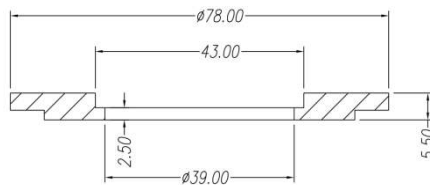
MEASUREMENT CIRCUIT FOR DYNAMIC SPEAKER



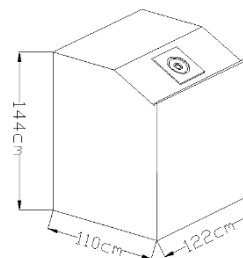
MEASURING EQUIPMENT

NO	EQUIPMENT	REMARKS
1.0	UNIT UNDER TEST	SPEAKER+Back cavity
2.0	TEST JIG	
3.0	TEST BOX	OLE WOLFF STANDARD BOX
4.0	ANALYZER	Soundcheck AmpConnect TM
5.0	MICROPHONE	B&K 4191

Test baffle jig



Testbox jig

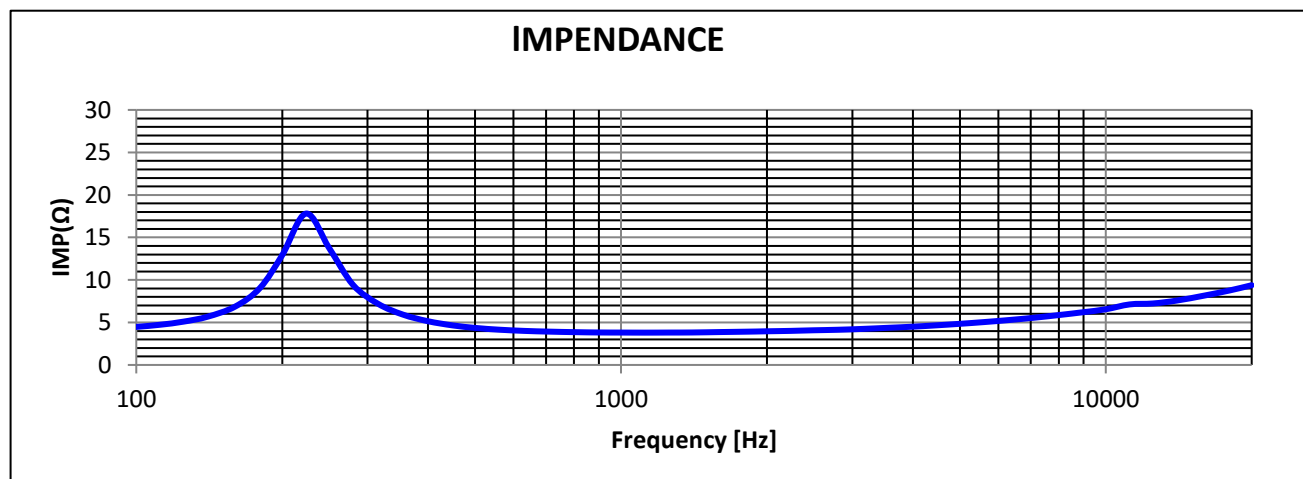
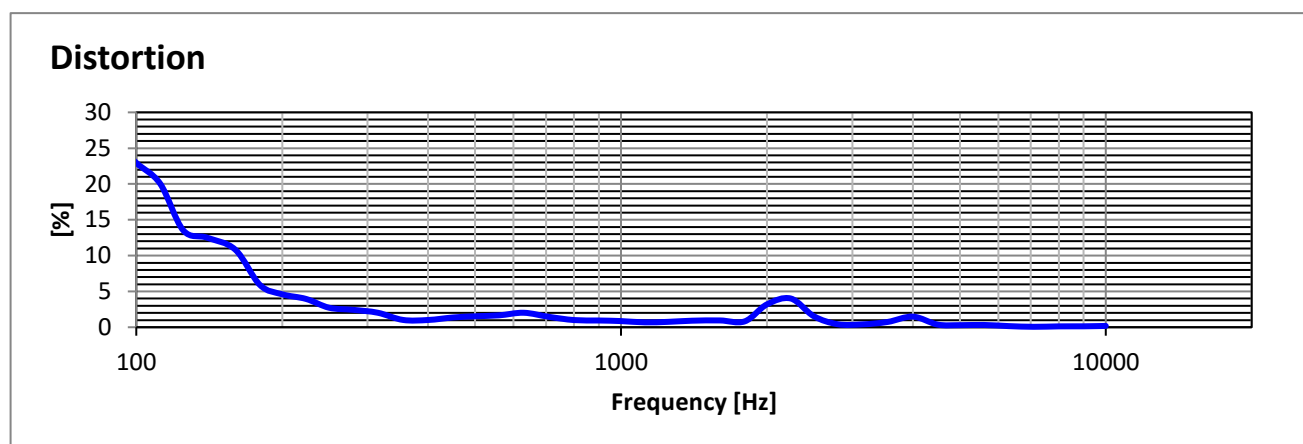
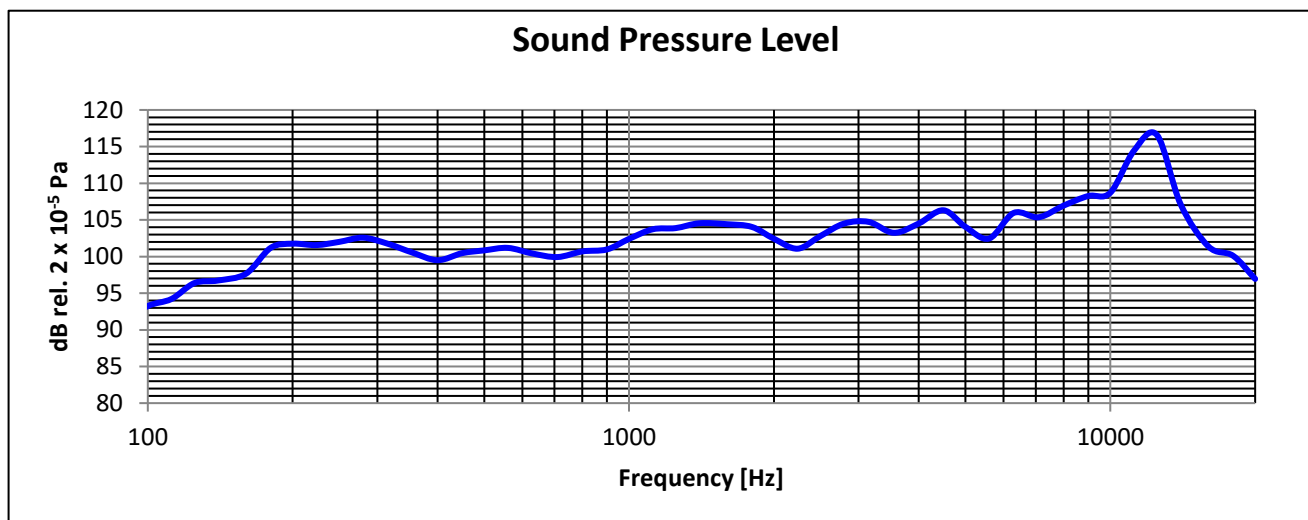


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8. STANDARD FREQUENCY RESPONSE CURVE

● 1w,0.1m (Fig.2)

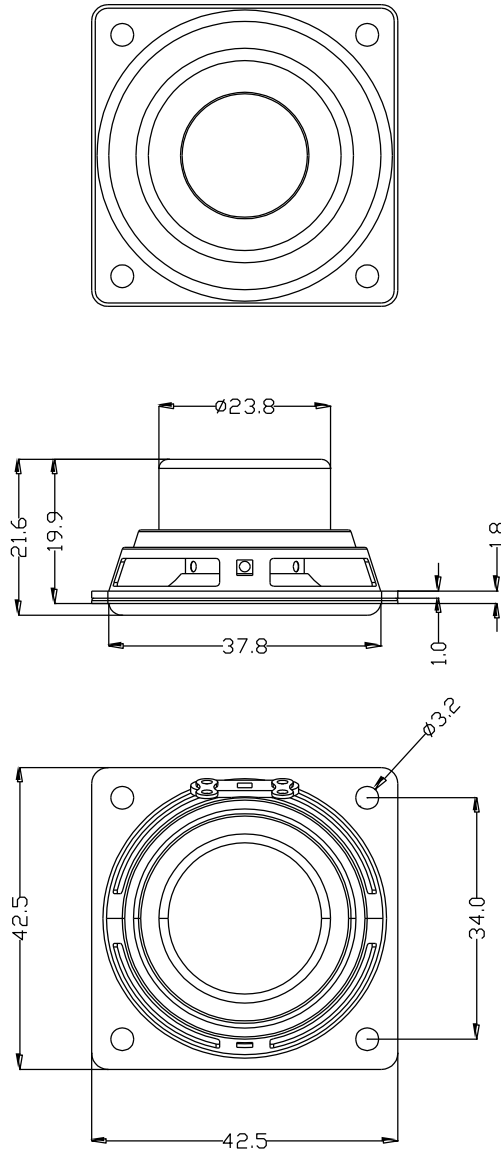


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9.OUTVIEW (外观图) (Fig.3)

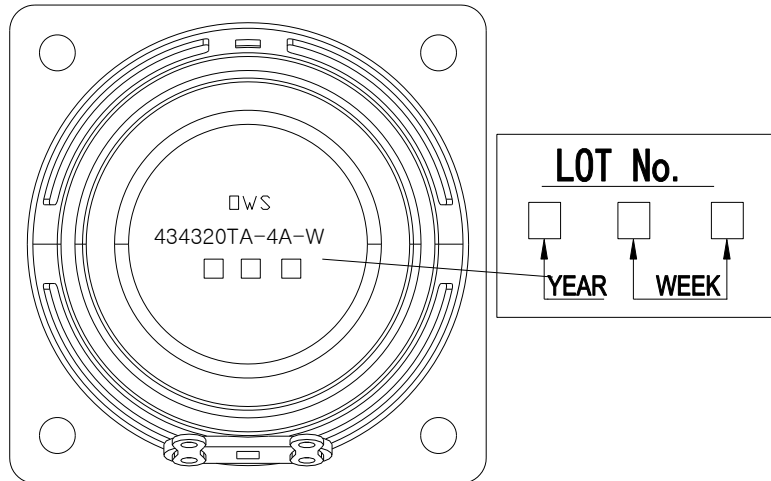
Unless otherwise specified,tolerance:±0.5(unit:mm)



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10.MARKING (捺印示意图) (Fig.4).

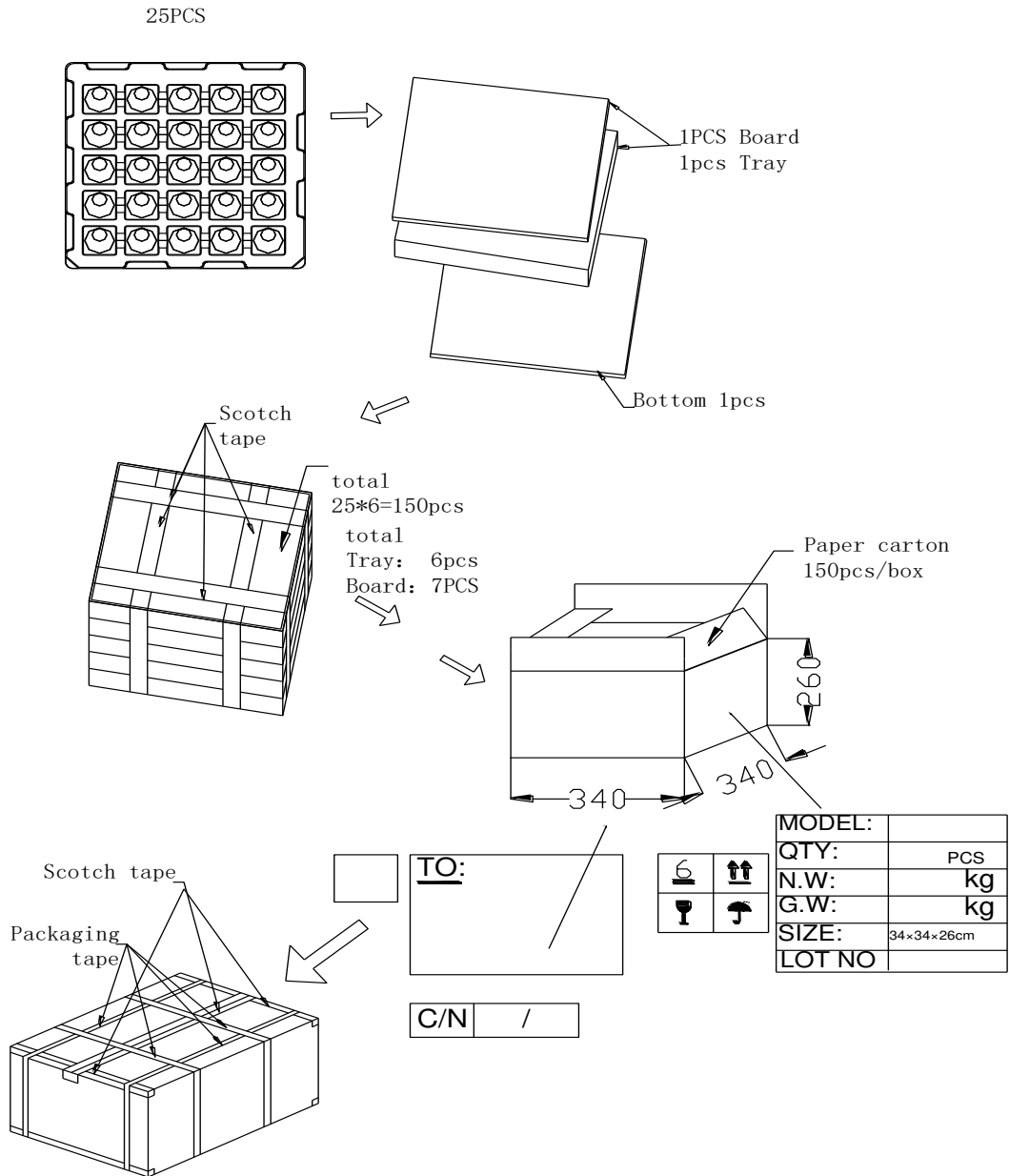


YEAR (年)		WEEK(周)	
year	marking	week	marking
2015	5	1	01
2016	6	2	02
2017	7	3	03
2018	8	4	04
2019	9	5	05
2020	0	↓	↓
2021	1		
2022	2		
		50	50
		51	51
		52	52
		53	53

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11.PACKING(包装流程图)(Fig.5)



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