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SPECIFICATION FOR APPROVAL

Piezo Audio Transducer

Part Number	OWPB-4013PA-32-9
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
		ZhuYu 2021.03.16		

Customer	Signature / Date	Confirmation		

REVISION NOTES:

Date	Rev.	Description of Revision
2021.03.16	00	Initial Release

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 TO OLE WOLFF PIEZO AUDIO TRANSDUCER UNIT OF MODEL:
OWPB-4013PA-32-9

2. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -30°C ~ +70°C

STORAGE TEMPERATUR RANGE: -40°C ~ +85°C

3. MECHANICAL LAYOUT & DIMENSIONS

DIMENSIONS: SHOWN IN FIGURE 4.


WEIGHT: 5.0g

4. ELECTRICAL CHARACTERISTICS

NO.	ITEM	SPECIFICATION
1	RATED VOLTAGE	9V
2	OPERATING VOLTAGE	6-12 V
3	RESONANT FREQUENCY	3200 ± 300Hz
4	*RATED CURRENT	≤ 50mA
5	* SOUND OUTPUT AT 10cm	≥ 110 (typical 115dB)
6	HOUSING MATERIAL	PBT(BLACK) 94V0

*Applying rated voltage (VDC)


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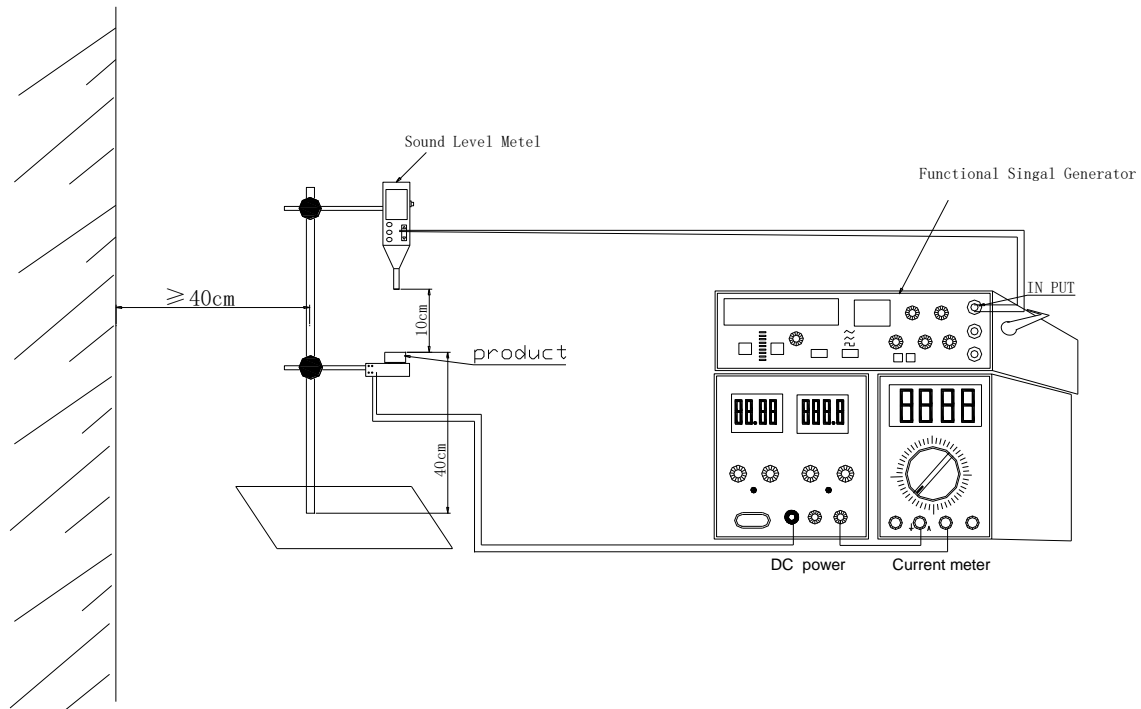
5. RELIABILITY TEST

- After Test All specifications must be satisfied after the test.				
5.1 High temperature Test Temperature: +85±2°C Duration: 96HRS				
5.2 Low temperature Test Temperature: -40±2°C Duration: 96HRS				
5.3 Humidity Test Temperature: +40±5°C Humidity: 93(+2/-3)%RH Duration: 96HRS				
5.4 Temperature cycling Test Temperature: -40±2°C room temp. +85±2°C room temp. Duration: 30min 15min 30min 15min Cycle: 5 cycles				
5.5 Vibration Test Input power: 10Hz to 55Hz, and then 55Hz to 10Hz Amplitude: 1.0mm (To-and-fro. sweep time, 1 minute) Direction: X, Y and Z (Total 0.5 hour)				
5.6 Drop Test Height: 70cm Drop Face: 10mm thick wooden board. Times: 3 times.				


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6. TEST METHOD (Figure 2)

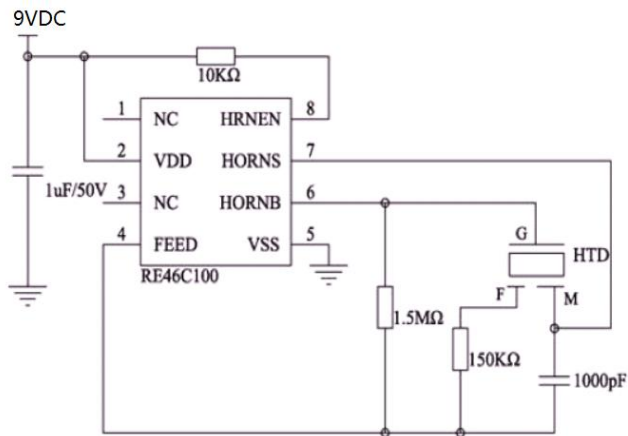
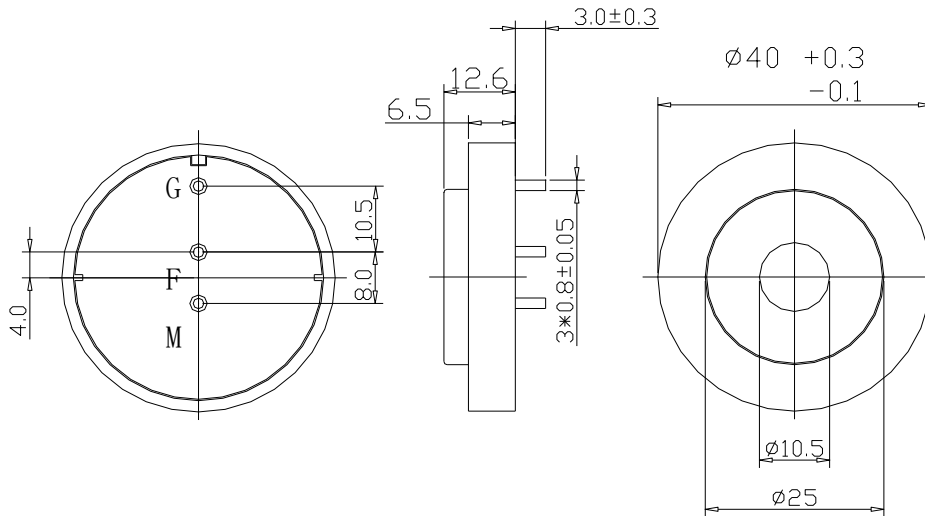


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7. DIMENSIONS (Figure 4)

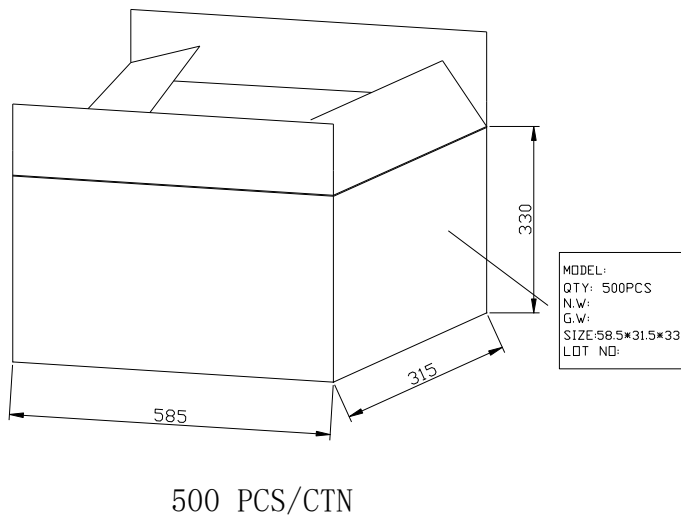
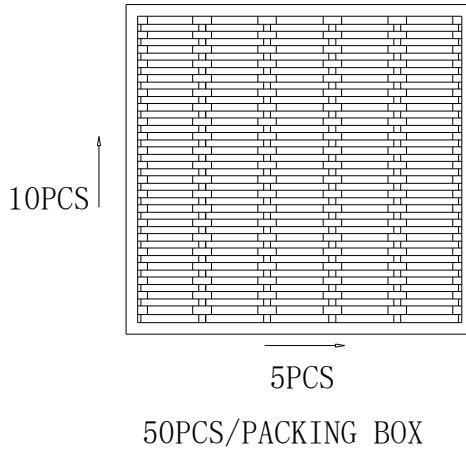
Unit: mm Tolerance: $\pm 0.5\text{mm}$ Except Specified



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8. PACKAGE INFORMATION (Figure 5)



- NOTES:**
- 1.50 PCS per box
 - 2.Total 250 boxes per carton
 - 3.Total 500PCS carton
 - 4.Volume:58.5x31.5x33cm

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