

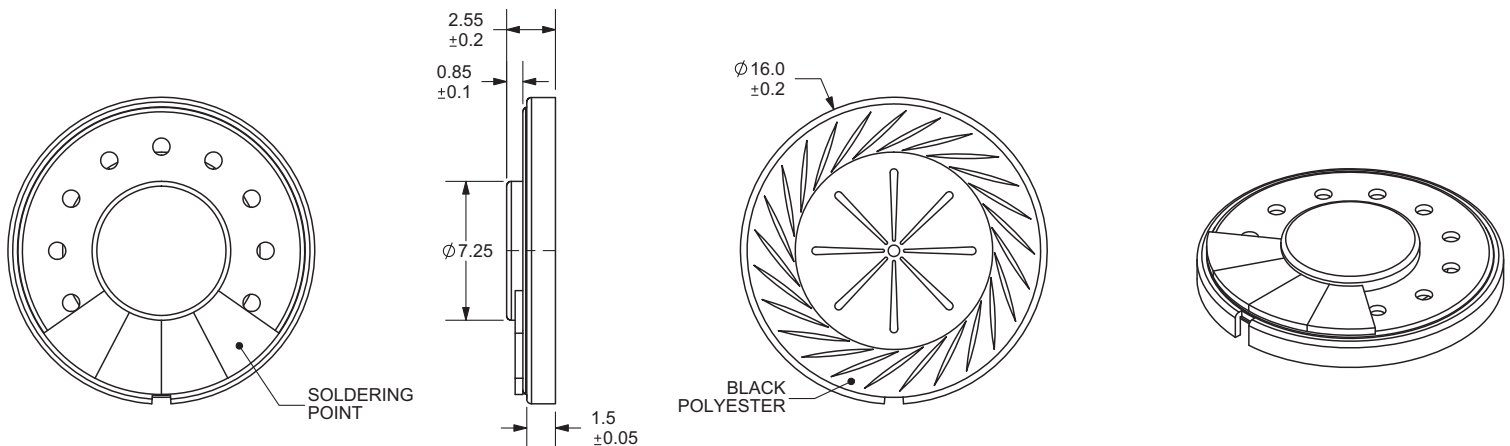
**PART NUMBER: CDMG16008-03**

**DESCRIPTION: LOW PROFILE SPEAKER**

## SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
input power	max. power: IEC-60268-5, filter 60 s on / 120 s off, 10 cycles at room temp		0.3	0.5	W
impedance	at 1 kHz, 1 V	6.8	8	9.2	$\Omega$
resonant frequency	at 1 V	480	600	720	Hz
sound pressure level	0.3 W, 10 cm ave. at 1, 1.2, 1.5, 2 kHz	79	82	85	dB
	1 W, 1 m ave. at 1, 1.2, 1.5, 2 kHz	66	69	72	dB
response		600		20,000	Hz
distortion	at 1 kHz, 0.3 W			10	%
buzz, rattle, etc.	must be normal at sine wave 1.55 V				
operating temperature		-20		55	$^{\circ}\text{C}$
dimenstions	$\varnothing 16 \times 2.55$ mm				
weight			1.5		g
material	metal				
RoHS	yes				

## APPEARANCE DRAWING

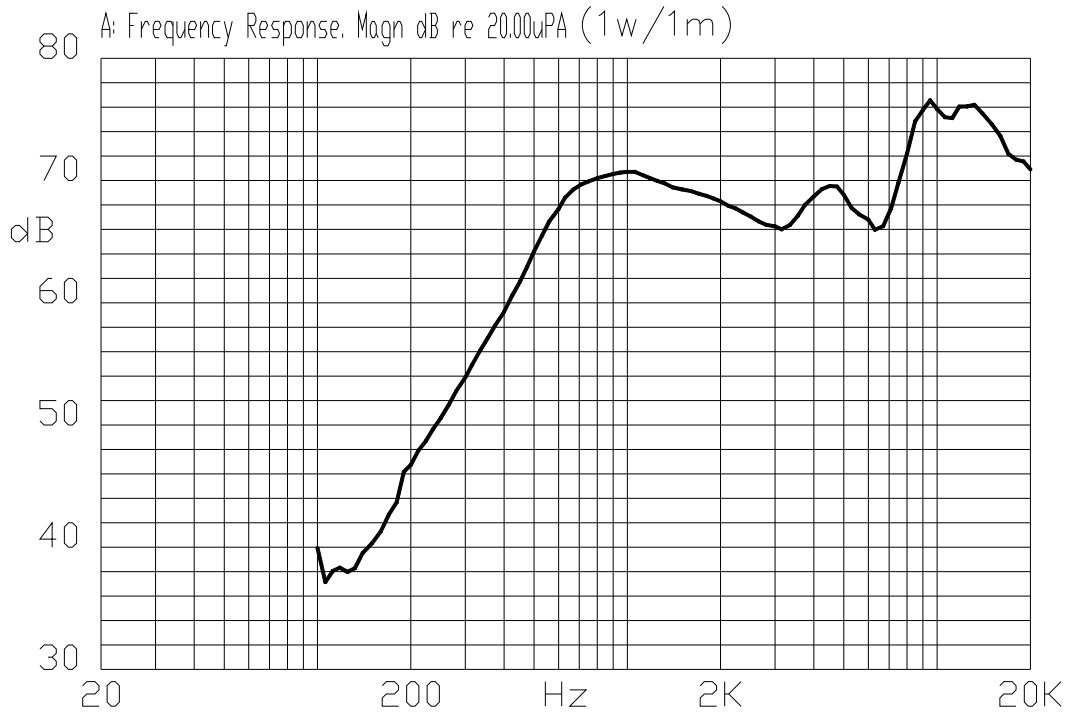
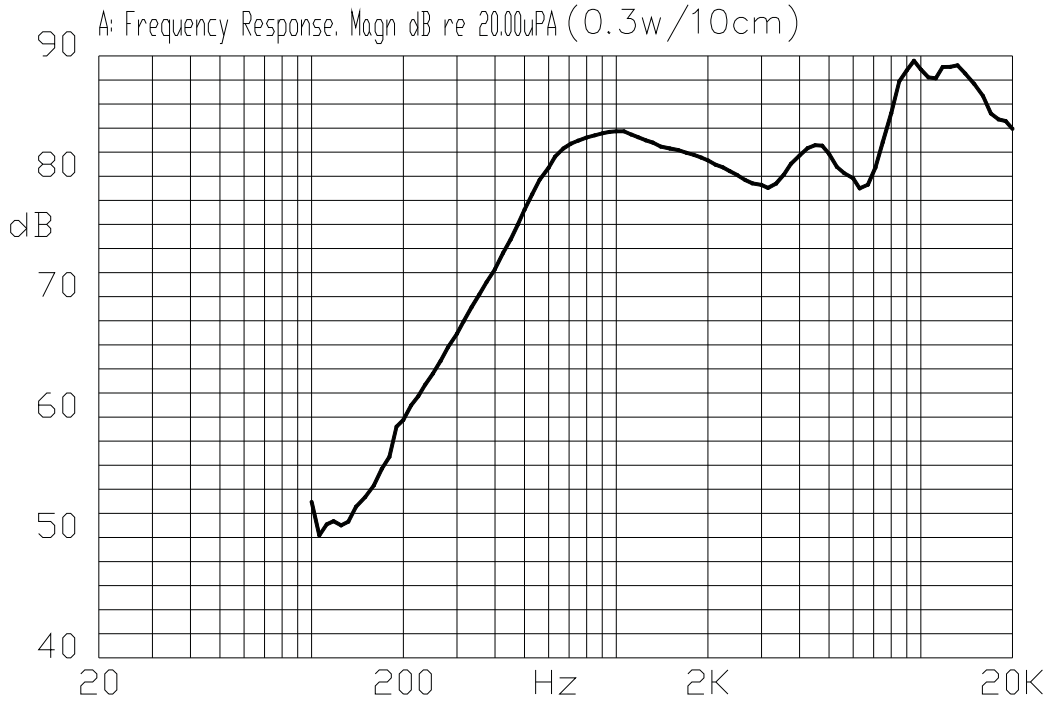




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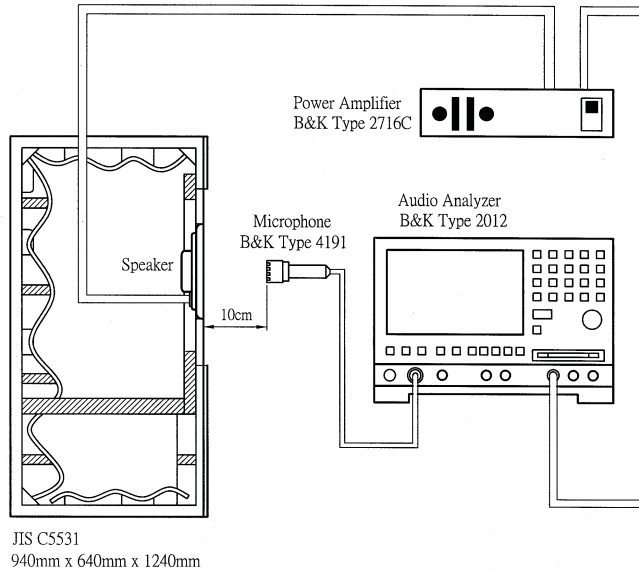
## FREQUENCY RESPONSE



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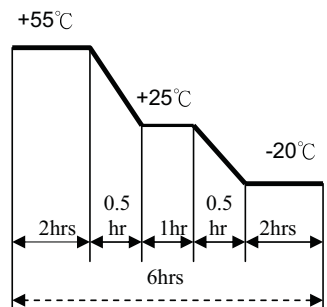
## MEASUREMENT METHOD



## MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
PCB wire pull strength	The pull force will be applied to double lead wire: horizontal 3.0 N (0.306 kg) for 30 seconds	No damage or cutting off
vibration test	The buzzer should be measured after a vibration amplitude of 1.5 mm with 10 ~ 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	No obstacle will be harmful to normal operation; damages, cracks, rust, and distortions. Should not be audible at 1.55 V sine wave between Fo ~ 20KHz.
drop test	The buzzer without packaging is subjected to 10 drops on each axis from the height of 75 cm onto a 40 mm thick wooden board.	

## ENVIRONMENT TEST

item	test condition	evaluation standard
high temperature test	After being placed in a chamber at +55°C for 96 hours.	The speaker will be measured after being placed at +25°C for 6 hours. No obstacle will be harmful to normal operation; damages, cracks, rust, and distortions. Should not be audible at 1.55 V sine wave between Fo ~ 20KHz. The Fo should meet initial measurements. SPL should be within ±3dB compared to the initial measurements.
low temperature test	After being placed in a chamber at -20°C for 96 hours.	
humidity test	After being placed in a chamber at +40°C and 90 ±5% RH for 240 hours.	
temperature cycle test	The part will be subjected to 10 cycles. One cycle will consist of: 	

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## RECOMMENDED TEMPERATURE PROFILE FOR HAND SOLDERING

370±10°C / 3±1 Sec

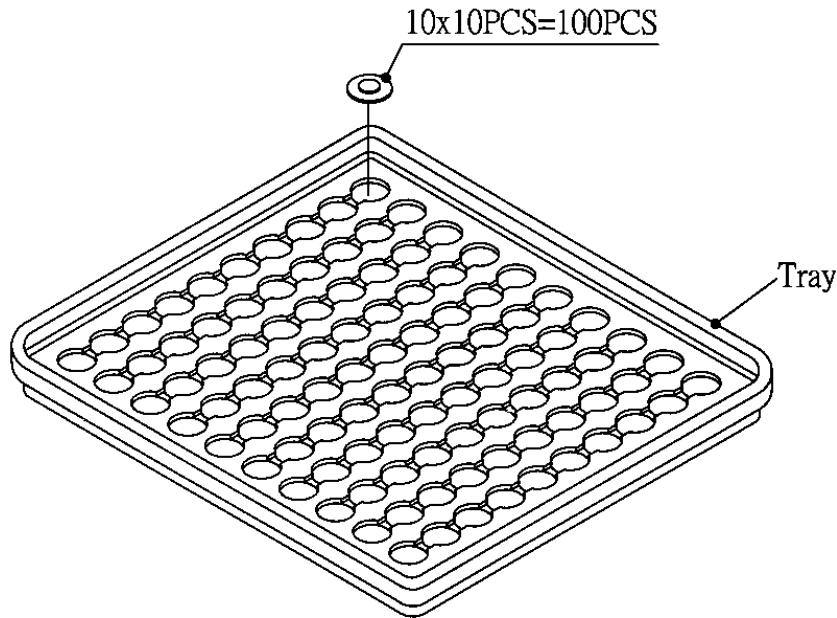
## RELIABILITY TEST

item	test condition	evaluation standard
operating (life test)	1. Load test: The part will be subjected to 24 hours of continuous white noise at 0.3 W at room temperature.	The speaker will be measured after being placed at +25°C for 6 hours. No obstacle will be harmful to normal operation; damages, cracks, rust, and distortions. Should not be audible at 1.55 V sine wave between Fo ~ 20KHz. The Fo should meet initial measurements. SPL should be within ±3dB compared to the initial measurements.

## TEST CONDITIONS

standard test conditions	a) Temperature: +5 ~ +35°C	b) Humidity: 45 ~ 85%	c) Pressure: 860 ~ 1060 mbar
judgement test conditions	a) Temperature: +25 ±2°C	b) Humidity: 60 ~ 70%	c) Pressure: 860 ~ 1060 mbar

## PACKAGING



Tray	216mmx196mmx20.4mm	1x100PCS=100PCS
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