

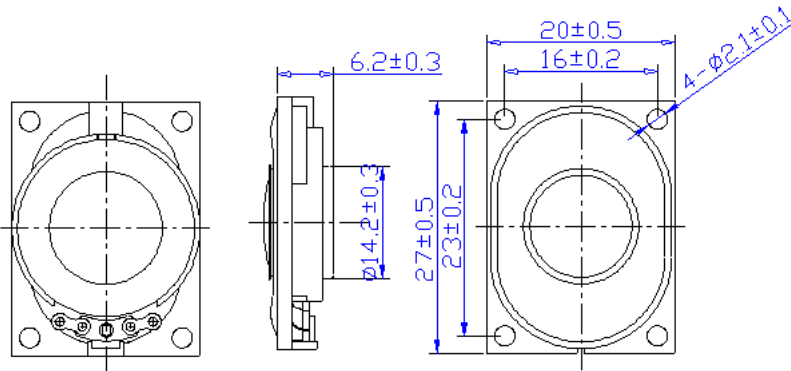


PRODUCT INFORMATION

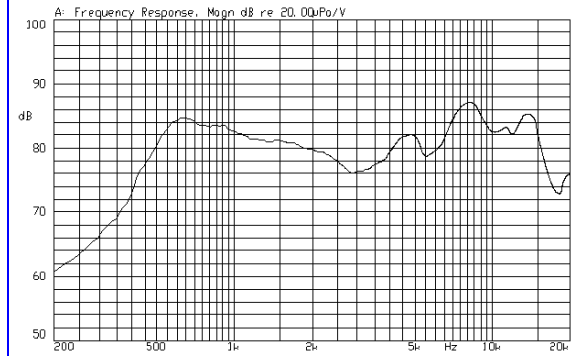
PART #	CES270V062DA08PCN650STR						Revision: 1-2014								
	MINI OVAL SPEAKER														
DESCRIPTION: Challenge Electronics Speaker, 27 mm Long, OVAL shape, 20 mm Wide, 6.2 mm High, DA = 3.0 W maximum power, 8 Ohm, Plastic Frame, Cloth Cone, NdFeB Ferrite magnet, 650 Hz. (Fo) Resonant Frequency, Solder Tabs, RoHS Lead Free Compliant															
SPECIFICATIONS															
Shape	Oval			Impedance	8 Ω ± 15%, at 1000 Hz, 1.0 V		DC Resistance								
Rated Power	Sine Wave	1.0	Square Wave	Maximum Power	Sine Wave	3.0 W	Square Wave								
Resonant Frequency (Fo)	650 Hz. ±20%, at 1.0 V			Effective Frequency Band	650 Hz. to 20,000 Hz. Within 10 dB Average SPL										
Sound Pressure Level	80 ± 3.0 dB (A), at 1.0 W, 0.5 m, Average 800, 1,000, 1,200, 1,500 (Hz), at 25°C, Baffle board (IEC)														
Operating Temperature	-20°C to + 60°C			Storage Temperature	-30°C to +70°C										
Physical Dimensions	Length or Diameter (L/D)	27.0 mm	Width (W)	20.0 mm	Height (H)	6.2 mm									
Baffle Opening	Length or Diameter (L/D)		Width (W)		Minimum Opening Recessed										
Mounting	Length or Diameter (L/D)		Width (W)		Holes size	2.1±0.1 mm	Holes	4							
Distortion	Less than 10% at 1,000 Hz. at 1.0 W.														
Buzz & Rattle	Not be audible at 2.83 V sine wave between 650 Hz and 20,000 Hz.														
Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red, the diaphragm shall move forward.														
Material	Magnet	Ferrite, NdFeB					Flux Density	Gauss							
	Frame	Plastic, ABS, Black			Cone Material	Cloth									
	Termination	Solder Tabs (Caution, overheating the terminal may damage connections of voice coil leads)													
	Gasket														
Speaker Parameters	Qms		Qes		Qts		Vas		Cms		M		M/N		BL
Approximate Weight	Shielding			No		Compliance		Lead Free, RoHS							
Options															
RELIABILITY															
Max. Power Test	With program White-Noise source at Maximum Power , 1 minute on, 2 minutes off, 10 cycles, per (EIA) *														
Thermal Operating Temperature Test	96 hours continuous operation at Rated Power , at Maximum Rated Operating Temperature *														
	96 hours continuous operation at Rated Power , at Minimum Rated Operating Temperature *														
Thermal Storage Temperature Test	96 hours No Operation at Maximum Rated Storage Temperatures *														
	96 hours No Operation at Minimum Rated Storage Temperatures *														
Thermal Shock Test	5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is three (3) hours long *														
Humidity Test	96 Hours at +40°C±2°C. 90-95% RH *														
Operation Life Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours per (EIA) *														
Insulation Test	A minimum of 1 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case														
Vibration Test	After parts are subjected to 15minutes of at 1.5 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *														
Termination Strength	Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for 10 seconds														
Drop Test	After parts are subjected to dropped naturally from 1 meter height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (9 times total) *														
* Reliability Test Performance	Parts should conform to original performance within ±5 dB tested with Rated Power , after 3 hours of recovery period.														
Warranty	For a period of one (1) year from date of shipping under normal operations conditions This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair														



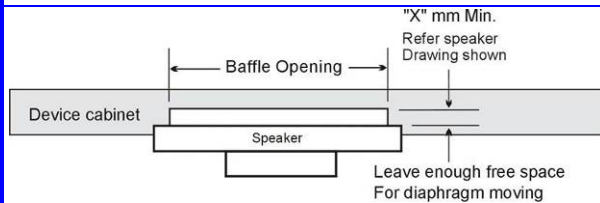
DIMENSIONS Units in: mm, Tolerance: ± 0.5 mm unless specified otherwise



SPL vs. FREQUENCY RESPONSE

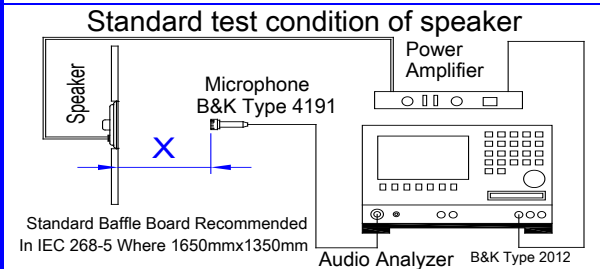


MOUNTING PRECAUTION



In order to keep speaker work normally, there shall leave enough free space for diaphragm moving, minimum distance required is marked in speaker mechanical drawing.

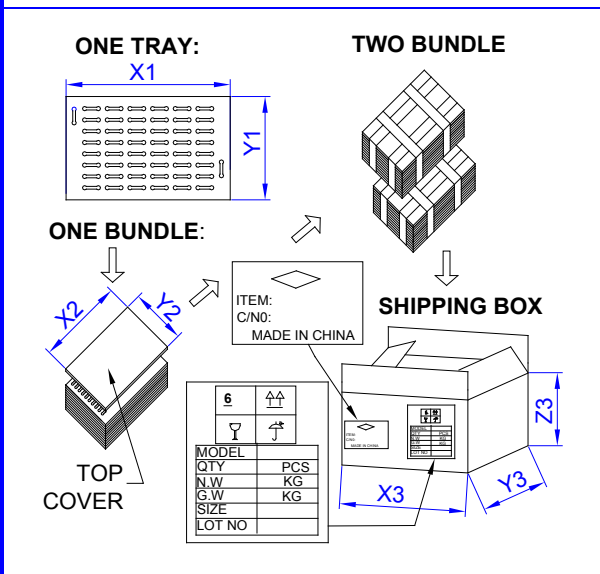
TEST PROCESS



Test Condition	
STANDARD	
Temperature:	15 ~ 35°C
Relative humidity:	45% ~ 85%
Atmospheric pressure:	860 mbar to 1060mbar
JUDGEMENT	
Temperature :	20±3°C
Relative humidity:	60% ~ 70%
Atmospheric pressure:	860mbar to 1060mbar

Standard Test Fixture	
Zero Level:	-dB
Mode:	TSR
potentiometer Range:	50dB
Sweep Time:	0.5sec
Input Power:	1.0 W
Microphone Distance:	X = 50 cm

PACKAGING



MARKING		TRAY	
Bundle		X1	28.8 cm
Part Number	Dimensions	Y1	34.8 cm
Other PN if required		Z1	cm
Quantity	Quantity	50	
Lot and/or Date Code		BUNDLE	
Bundle Number	Dimensions	X2	28.8 cm
Shipping Box		Y2	34.8 cm
Part Number		Z2	cm
Other PN (if required)	Quantity	500	
Quantity		SHIPPING BOX	
Lot and/or Date Code	Dimensions	X3	60 cm
PO Number		Y3	37 cm
Net Weight		Z3	20.5 cm
Gross Weighjt	Number of Bundles	2	
Box Number of Boxes	Quantity	1000	
Made in China	Approximate Weight	kg	

Revision	Description	By	Date
1-2014	Correct width from 14 to 20 in specification detail (drawing was not changed)	w.sargent	2014-10-08