

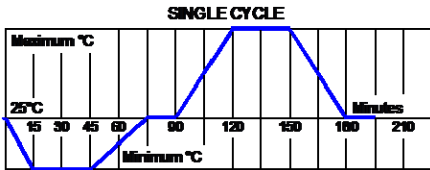


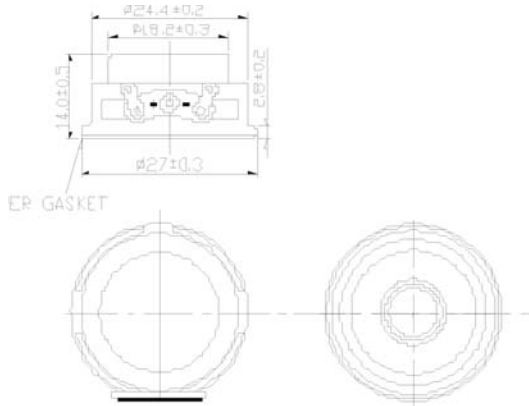


PRODUCT INFORMATION

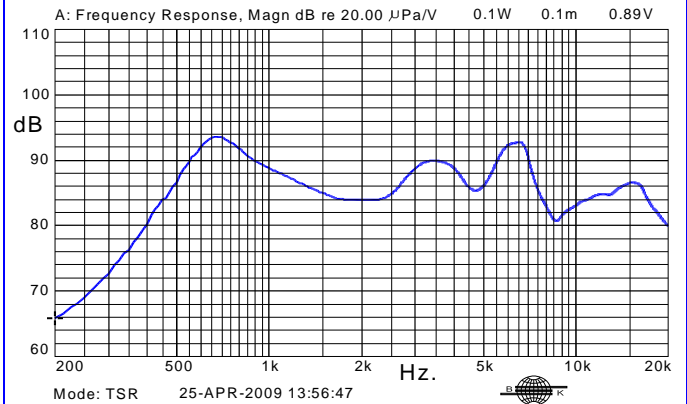
PART #	CES270R140DA08MCPN800TR						Revision: 0-2012								
	ROUND SPEAKER														
DESCRIPTION: Challenge Electronics Speaker, 27.0 mm Diameter, Round shape, 14.0 mm High, DA = 3W maximum power, 8 Ohm, Metal Frame, Cloth Edge Paper Cone, NdFeB Ferrite magnet, Resonant Frequency (Fo) 800 Hz., Shield, solder Tabs Termination, RoHS Lead Free Compliant															
SPECIFICATIONS															
Shape	Round		Impedance	8 Ω ± 15%, at 2,000 Hz, 1.0 V			DC Resistance								
Rated Power	Sine Wave	2.0 W	Square Wave	W	Maximum Power	Sine Wave	3.0 W	Square Wave							
Effective Frequency Band	800 Hz. to 20,000 Hz.			Resonant Frequency (Fo)			800 Hz. ± 20%, at 1.0 V								
Sound Pressure Level	88 ± 3.0 dB(A), at 0.1 W, 0.1 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 +60°C								
Physical Dimensions	Length or Diameter (L /D)		27.0 mm	Width (W)	mm	Height (H)	14.0 mm								
Baffle Opening	Length or Diameter (L /D)		mm Ø	Width (W)		Minimum Opening Recessed	2.0 mm								
Mounting	Length or Diameter (L /D)			Width (W)		Holes size		Holes size							
Distortion	Less than 5% at 1,000 Hz. at 1 V.														
Buzz & Rattle	Not be audible at 4 V sine wave between 200 Hz. and 2,000 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, 12.5 mm Ø, 2.5 mm t					Flux Density	T							
	Frame	Metal, Plated Steel			Cone Material	Paper Cone with Cloth Edge									
	Termination	Solder Tabs (Caution, overheating the terminal may damage connections of voice coil leads)													
	Optional Gasket														
Speaker Parameters	Qms		Qes		Qts		Vas		Cms		M		M/N		BL
Approximate Weight	12 grams		Shielding	No		Compliance	Lead Free, RoHS								
Options															
RELIABILITY															
Maximum Power Test	10 Cycles, with program White-Noise source Maximum Power, 1 minute on, 2 minutes off, per (EIA) *														
Thermal Operating Temperature Test	50 hours continuous operation at Rated Power, at Maximum Rated Operating Temperature *														
	50 hours continuous operation at Rated Power, at Minimum Rated Operating Temperature *														
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *														
	96 hours storage 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 *														
Insulation Test	A minimum of 1 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case														
Vibration Test	Parts in Shipping Container are subjected to 15 minutes of at 0.75 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	Parts in Shipping Container 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.														
Life Test	100 hours continuous operation at Rated Power, with White-Noise simulated program signal source (per IEC 268-1) with a Vp to Vrms ratio of 1.8 to 2.2 in rated frequency range, (per IEC 268-5)														
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

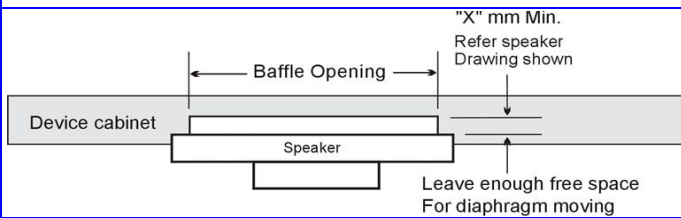
Units in: mm, Tolerance: ± 0.3mm unless specified otherwise.



SPL vs. FREQUENCY RESPONSE

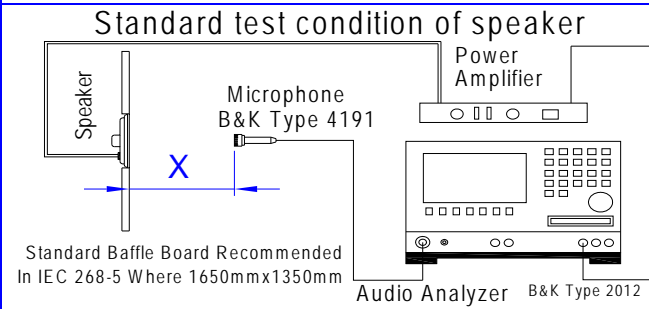


MOUNTING PRECAUTION



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



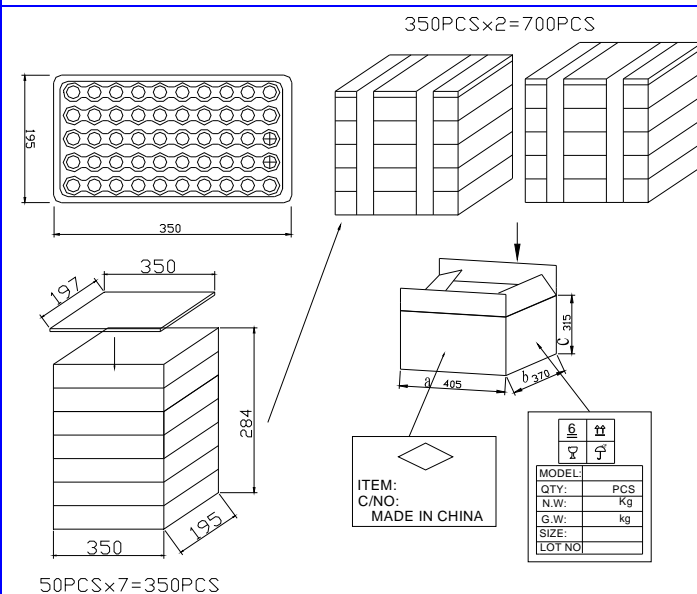
Test Condition
STANDARD
 Temperature: 15 ~ 35°C
 Relative humidity: 45% ~ 85%
 Atmospheric pressure: 860 mbar to 1060mbar

Standard Test Fixture
 Zero Level: -dB
 Mode: TSR
 potentiometer Range: 50dB
 Sweep Time: 0.5sec

JUDGEMENT
 Temperature: 20±3°C
 Relative humidity: 60% ~ 70%
 Atmospheric pressure: 860mbar to 1060mbar

Input Power:
0.1 W (0.89 V)
Microphone Distance:
X = 10 cm

PACKAGING



MARKING		TRAY	
Bundle	Dimensions	X1	35 cm
Customer PN		Y1	19.5 cm
Other PN if required			
Quantity	Quantity	50	
Lot and/or Date Code	BUNDLE		
Bundle Number	Dimensions	X2	35 cm
Shipping Box		Y2	19.5 cm
Customer Part Number		Z2	cm
Other PN (if required)	Quantity	350	
Quantity	SHIPPING BOX		
Lot and/or Date Code	Dimensions	X3	40.5 cm
PO Number		Y3	37 cm
Net Weight		Z3	31.5 cm
Gross Weighjt	Number of Bundles	2	
Box Number	Quantity	700	
of Number of Boxes	Approximate Weight		
Made in China			