

**MODEL:** CDS-20144 | **DESCRIPTION:** SPEAKER**FEATURES**

- micro-speaker
- high SPL
- wide operating temp range
- 4 ohm impedance

**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
input power	maximum power: IEC-60268-5, filter 60s on/120s off, 10 cycles at room temp		1.0	1.2	W
impedance	at 2.0 kHz, 1.0 V	3.4	4	4.6	Ω
resonant frequency (Fo)	at 1.0 V	480	600	720	Hz
frequency response	output SPL -10 dB	Fo		20,000	Hz
sound pressure level	at 1.0 W, 0.1 m ave, at 0.8, 1.0, 1.2, 1.5 kHz	89	92	95	dB
distortion	at 1.0 kHz, 2 V			10	%
buzz, rattle, etc.	must be normal at sine wave between Fo ~ 20 kHz		2.0		V
polarity	cone will move forward with positive dc current to "+" terminal				
dimensions	20 x 14 x 3.2				mm
magnet	Nd-Fe-B				
material	PBT				
cone material	PEN				
terminal	solder pads				
weight			1.3		g
operating temperature		-30		70	$^{\circ}\text{C}$
storage temperature		-40		85	$^{\circ}\text{C}$
RoHS	yes				

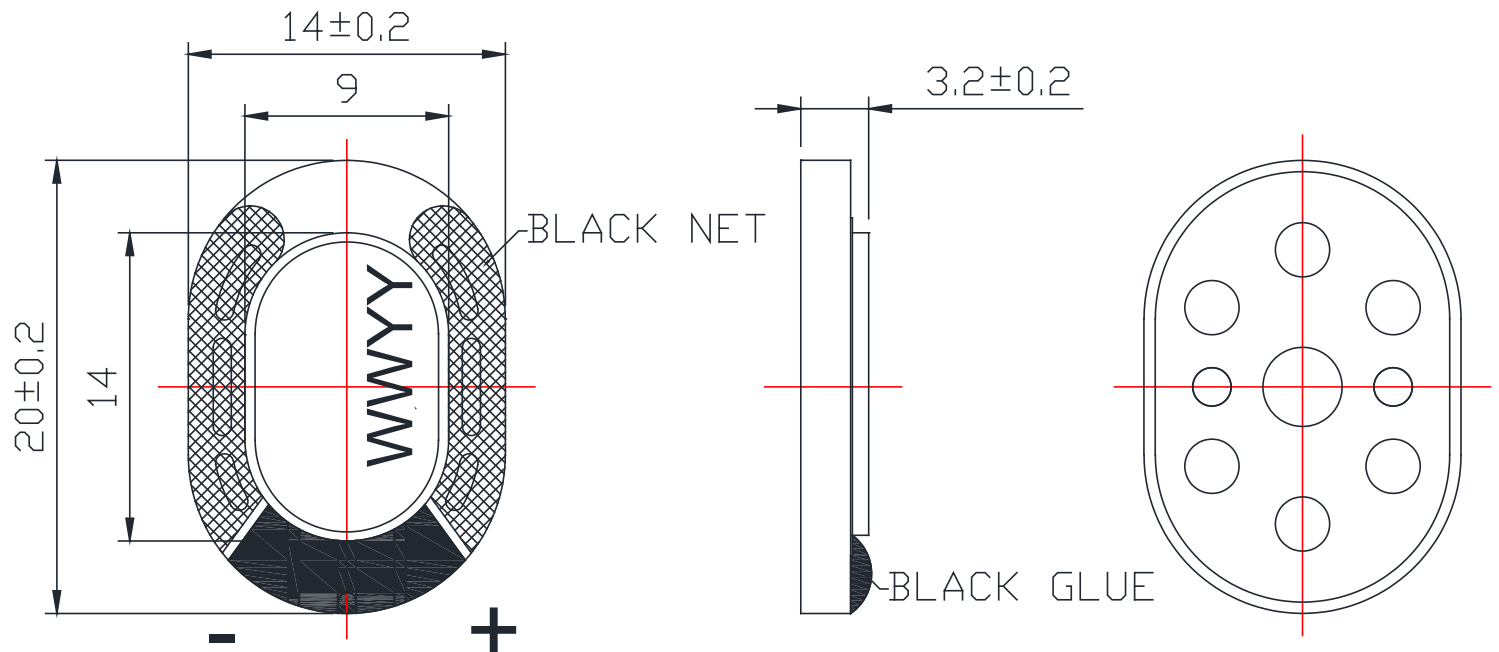
Notes: 1. All specifications measured at 5-35 $^{\circ}\text{C}$, humidity at 45-85%, under 86-106kPa pressure, unless otherwise noted.

SOLDERABILITY

parameter	conditions/description	min	typ	max	units
hand soldering	for 1-3 seconds	370	380	390	$^{\circ}\text{C}$

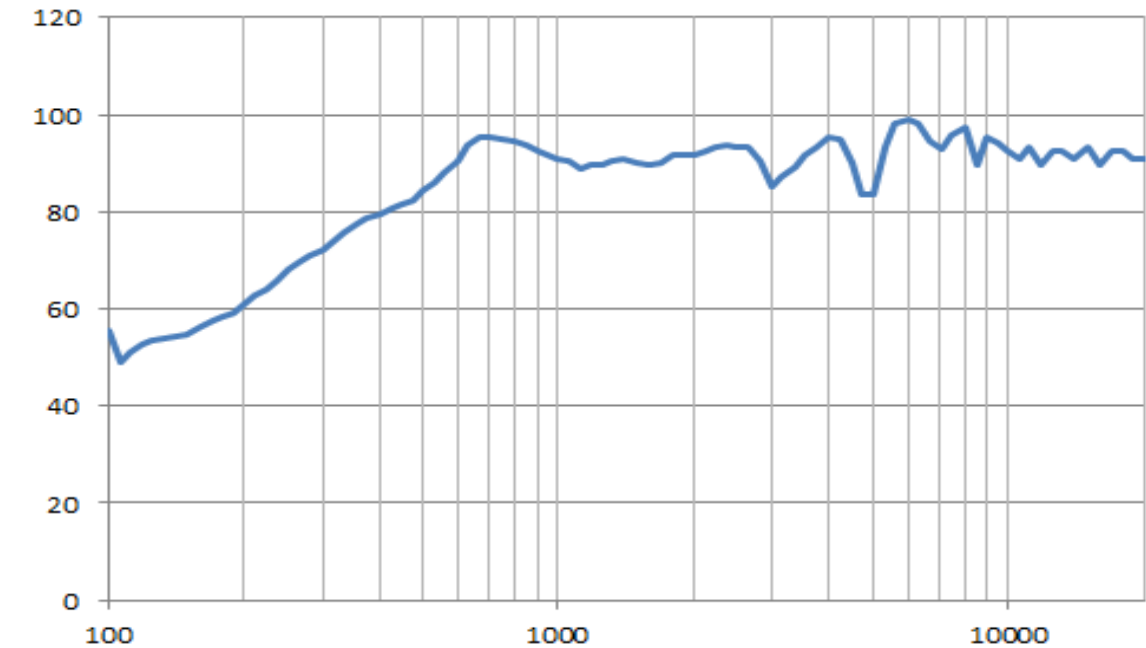
MECHANICAL DRAWING

units: mm
tolerance: ± 0.5 mm

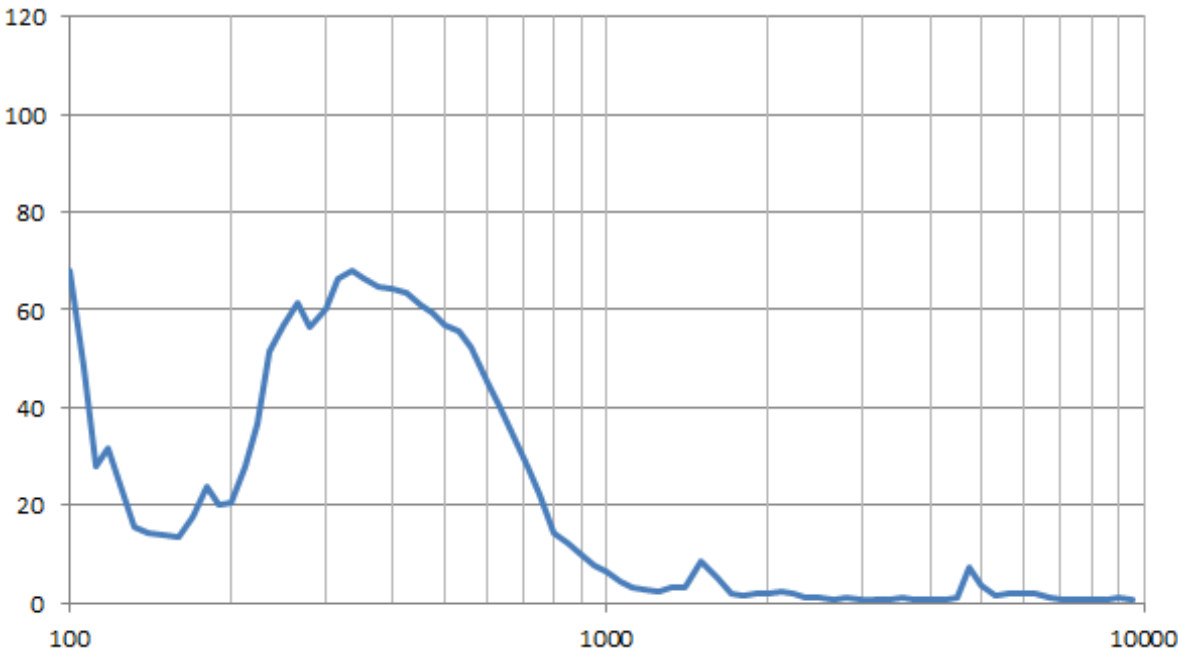


RESPONSE CURVES

Frequency Response Curve



Total Harmonic Distortion Curve



THIELE-SMALL PARAMETERS

parameter	conditions/description	typ
Mechanical Q Factor	Qms	2.713
Electrical Q Factor	Qes	9.354
Total Q Factor	Qts	2.103
Compliance Equivalent Volume	Vas	0.0028

Notes: 2. Results represent typical performance in Free Air conditions.

REVISION HISTORY

rev.	description	date
1.0	initial release	03/25/2015
1.01	brand update	01/21/2020
1.02	logo, datasheet style update	08/05/2022
1.03	modified design	01/29/2024
1.04	CUI Devices rebranded to Same Sky	09/11/2024
1.05	added Thiele-Small Parameters	02/26/2025

The revision history provided is for informational purposes only and is believed to be accurate.



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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