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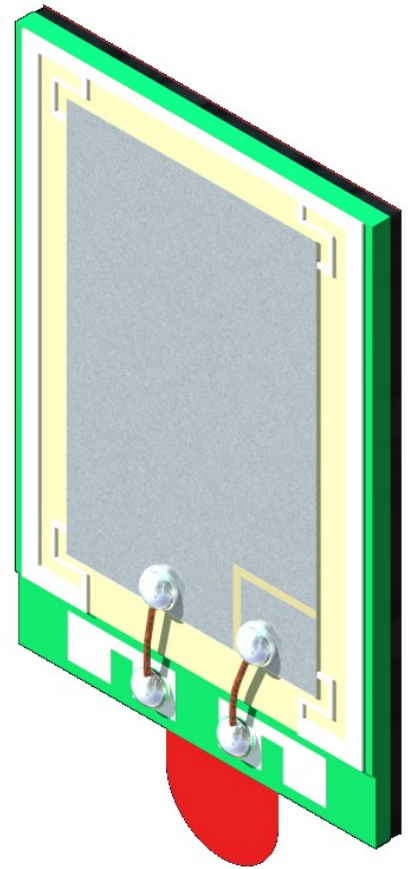
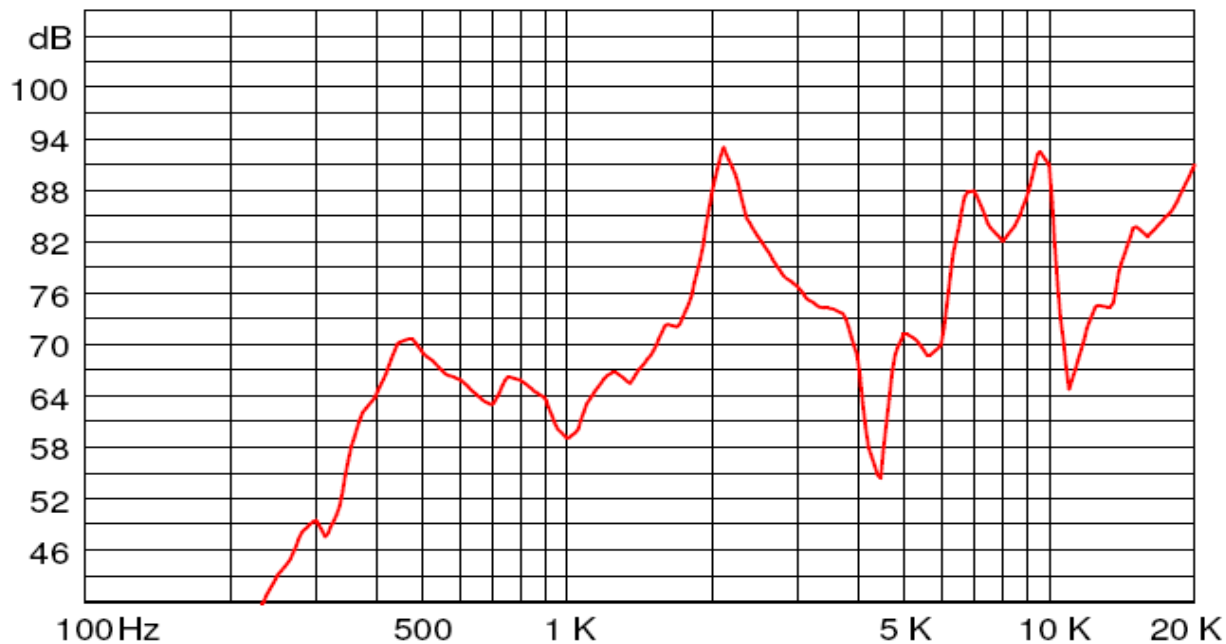
APS2509S-T-R Piezo Speaker

3541 Stop Eight Road • Dayton, Ohio 45414

Product Overview

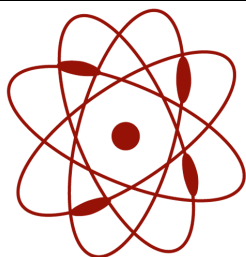
- 48mm diameter speaker built using a piezo ceramic for minimum current draw
- Designed to work with TTL or CMOS signals as high as 30Vp-p
- Only 2.2 mm thick for slim devices that need high output
- Convenient 100mm leads for quick connection

Frequency Response (5Vrms @ 10 cm)



An Initiative of the EICC and GeSI





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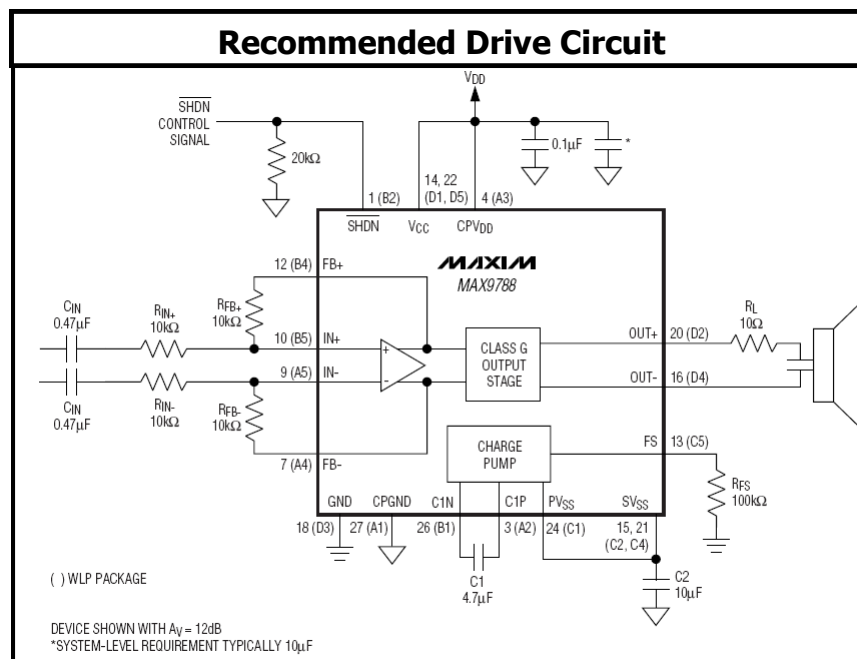
APS2509S-T-R Piezo Speaker

Mechanical and Environment Testing

Test Description	Test Condition
High Temperature	85°C with random humidity for 240 hours
Low Temperature	-30°C with random humidity for 240 hours
Humidity	60°C with 90% to 95% relative humidity for 240 hours
Vibration	1.5 mm movement modulated at 10 to 55 Hz for 2 hours
Drop Test	150 cm free fall while in 150g jig, 3 cycles per side
Temperature Cycle Test	-30°C for 30 minutes to 85°C for 30 minutes, 20 cycles

After 4 hours at rest, resonant frequency shall be $\pm 10\%$ of original value with capacitance $\pm 20\%$ of original value.

Recommended Drive Circuit



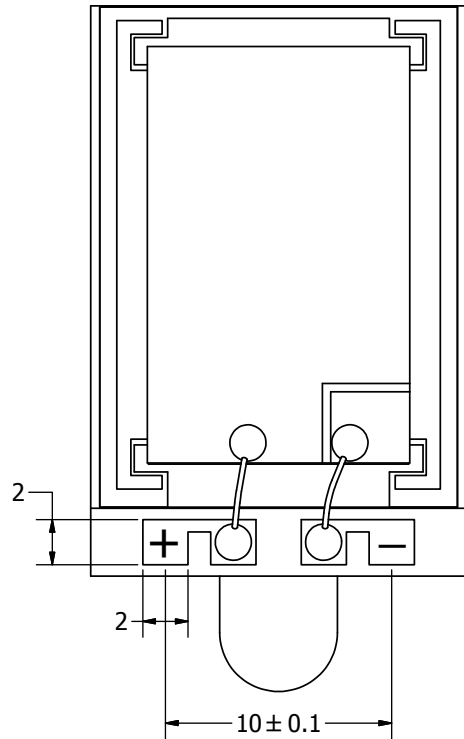
SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED INPUT POWER	5	Vrms
MAX INPUT POWER	16	Vp-p
OUTPUT SPL @ 5Vrms/10cm (AT 1.0, 1.5, 2.0, 2.5 kHz)	75	dBa
RESONANT FREQUENCY	900 ± 20%	Hz
FREQUENCY RANGE	300 ~ 20,000	Hz
HOUSING MATERIAL	PCB	-
OPERATING TEMPERATURE	-20 ~ +70	°C
WEIGHT	0.64	grams

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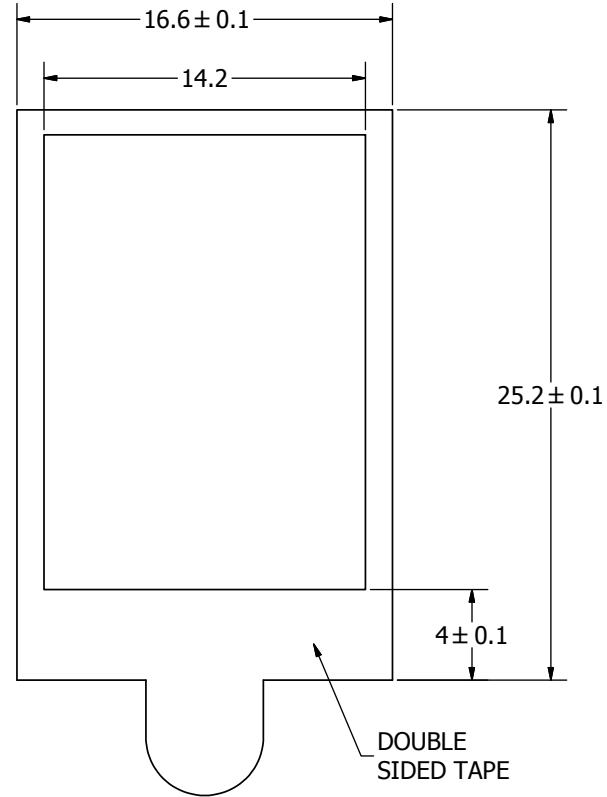
REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	6/2/2011	



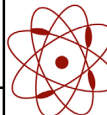
FIXED LAYER THICKNESS 0.5 mm

1.1 Max.



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
	A3	J.D.	6/2/2011	M.L.	6/15/2011	B.R.	6/15/2011	6/2/2011
APS2509S-T-R.idw		 pui audio <small>a projects unlimited company</small>				APS2509S-T-R Speaker		
						Edition	Sheet	
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