

Product Brief



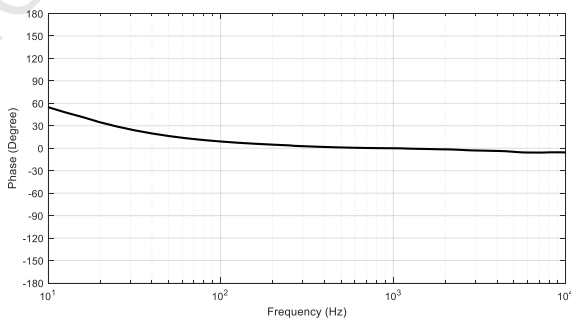
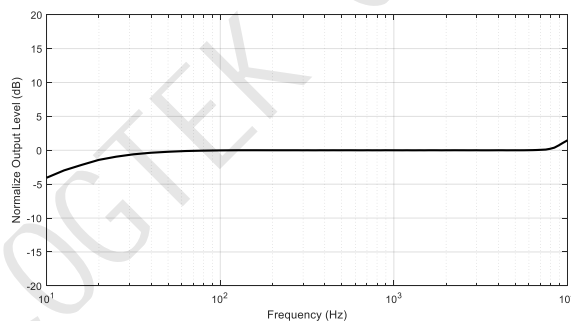
RA2718A

COMPACT ANALOG TOP PORT MICROPHONE

PRODUCT DESCRIPTION

The RA2718A is top port silicon analog microphone, which features matched sensitivity, high AOP, high flatness frequency response, and RF immunity.

The RA2718A performs a flat low-frequency response with cut-off frequency down to 13 Hz. This makes RA2718A as an excellent choice for functions requiring precise phase matching, such as the straight noise cancellation (SNC), the active noise cancellation (ANC), the environmental noise cancellation (ENC) or the acoustic echo cancellation (AEC).



PRODUCT FEATURES

- ✓ LFRO: 13Hz
- ✓ Sensitivity of -42 ± 0.5 dBV/Pa
- ✓ SNR of 58 dBV/Pa
- ✓ AOP : 132 dB SPL
- ✓ 2.75 x 1.85 x 0.90 mm Surface-Mount Package with Top Port

PRODUCT BENEFITS

- ✓ High Flatness : 40Hz(@-1dB) to 8KHz(@+1dB)
- ✓ ± 0.5 dB uniformity to ensure product performance stability
- ✓ 3 passes IR reflow at 260°C
- ✓ Test# according to AEC-Q100-REV-G

TYPICAL APPLICATIONS

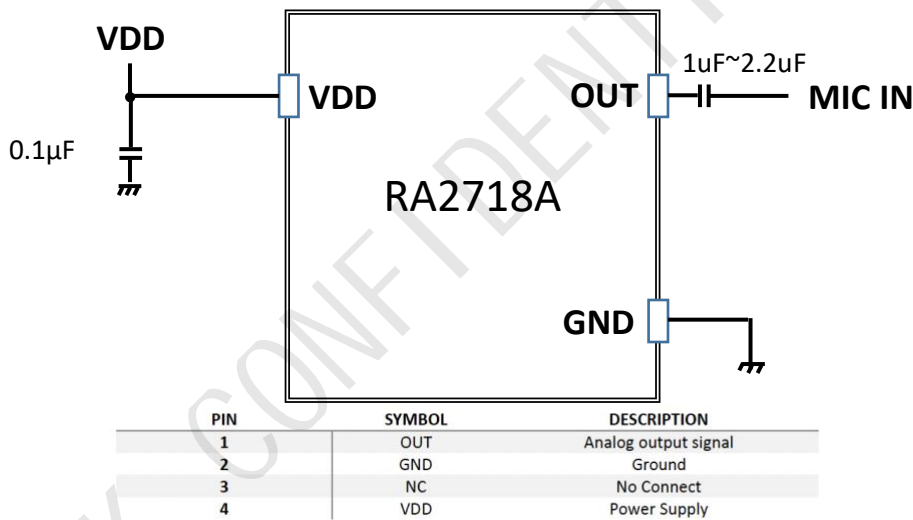
- ✓ Smartphone, earphone, speaker phone
- ✓ Wearable Intelligent Equipment
- ✓ True Wireless Stereo
- ✓ Smart Watch
- ✓ ANC/ENC Headsets

Acoustic Characteristics

Test Conditions: T_A = 25±2°C, 55%±20% R.H., V_{DD} = 2.5V, no load, unless otherwise indicated

Parameter	Symbol	Values			Units	Notes
		Min	Typ.	Max		
Supply Voltage	V _{DD}	1.6	2.5	3.6	V	
Supply Current	I _{DD}		130		μA	
Sensitivity	SEN		-42		dBV/Pa	94dB SPL @1kHz, +/-0.5dB variation
Signal to Noise Ratio	SNR		58		dBV/Pa	94dB SPL @ 1kHz, A-weighted
Total Harmonic Distortion	THD		0.08		%	Measuring 2 nd to 5 th harmonic @1kHz
Acoustic Overload Point	AOP		132		dB SPL	THD = 10%, all operating modes
Low Freq. Cutoff Point	LFRO		13		Hz	-3dB relative to 1kHz
High Freq. Flatness	HFF		10		kHz	+3dB relative to 1kHz

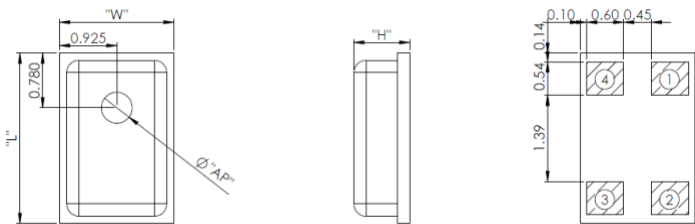
Typical Application



Note : 1. PIN3 can be connected to GND or NC for SMT convenience.

PACKAGE INFORMATION

ITEM	DIMENSION	TOLERANCE	UNITS
LENGTH(L)	2.75	±0.100	mm
WIDTH(W)	1.85	±0.100	mm
HEIGHT(H)	0.90	±0.100	mm
ACOUSTIC PORT (AP)	∅0.50	±0.050	mm



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