

Product Brief



RA2718W

Wafer-Proof
ANALOG TOP PORT
MICROPHONE

PRODUCT DESCRIPTION

The RA2718W (with waterproof film used) is a IPx7 waterproof top port silicon analog microphone, which features high sensitivity, high SNR. In addition, its flatness audio performance and RF immunity, are ideal for outdoor applications requested for high voice-capturing performance. It is suitable for outdoor portable devices, such as TWS, kid watch, outdoor speaker, walkie-talkie, sport camera.

PRODUCT FEATURES

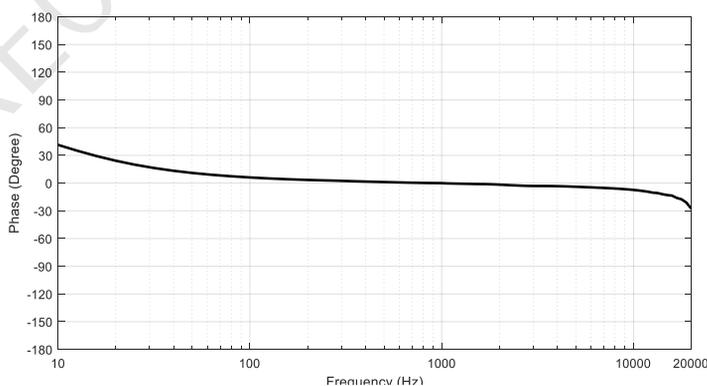
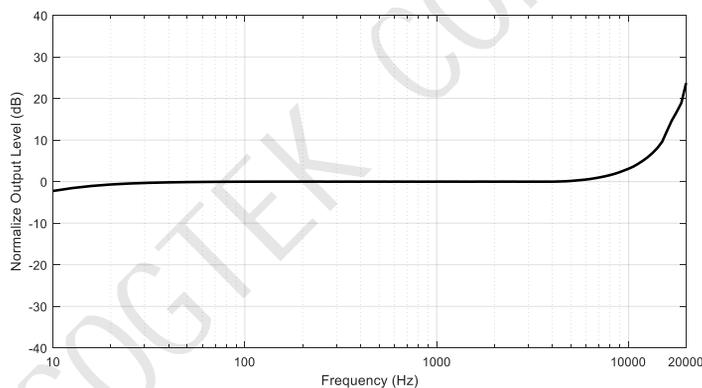
- ✓ LFRO: 10Hz
- ✓ Sensitivity of -38 ± 1 dBV/Pa
- ✓ SNR of 62 dBV/Pa
- ✓ AOP : 126 dB SPL
- ✓ 2.75 x 1.85 x 1.25 mm Surface-Mount Package with Top Port

PRODUCT BENEFITS

- ✓ IPx7 water proof
- ✓ High Flatness : 20Hz(@-1dB) to 7KHz(@+1dB)
- ✓ +/-1dB uniformity to ensure product performance stability
- ✓ 3 passes IR reflow at 260°C

TYPICAL APPLICATIONS

- ✓ Sport camera
- ✓ Walkie-Talkie
- ✓ Kid Watch
- ✓ Outdoor speaker
- ✓ Sport earphone

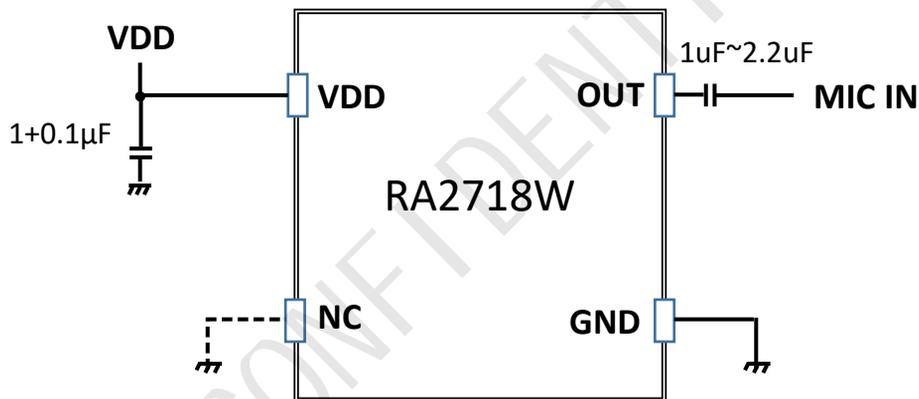


Acoustic Characteristics

Test Conditions: $T_A = 25 \pm 2^\circ\text{C}$, $55\% \pm 20\%$ R.H., $V_{DD} = 2.5\text{V}$, 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		-38		dBV/Pa	94dB SPL @1kHz, +/-1dB variation
Signal to Noise Ratio	SNR		62		dBV/Pa	94dB SPL @ 1kHz, A-weighted
Total Harmonic Distortion	THD		0.1		%	Measuring 2 nd to 5 th harmonic @1kHz
Acoustic Overload Point	AOP		126		dB SPL	THD = 10%, all operating modes
Low Freq. Cutoff Point	LFRO		10		Hz	-3dB relative to 1kHz
High Freq. Flatness	HFF		10		kHz	+3dB relative to 1kHz

Typical Application

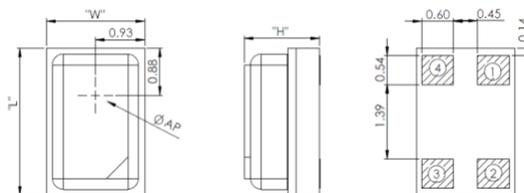


PIN	SYMBOL	DESCRIPTION
1	OUT	Analog output signal
2	GND	Ground
3	NC	No Connect
4	VDD	Power Supply

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)	1.37	± 0.100	mm
ACOUSTIC PORT (AP)	$\varnothing 0.50$	± 0.050	mm



PLEASE NOTE!

The product brief is for information purposes of quickly understanding the key features, benefits. We kindly ask customers to refer to the relevant product datasheets provided by sales or marketing representatives. Our customers and their technical departments are required to evaluate the suitability of our products for the intended application.

RECOGTEK Technologies reserves the right to change the document and/or the information given herein at any time.

WARNINGS

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