MODEL: DEVKIT-MEMS-004 | DESCRIPTION: MICROPHONE DEVELOPMENT KIT

FEATURES

- 4 detachable evaluation boards
- analog MEMS
- top port & bottom port
- plated through hole I/O terminals for multiple testing options

RoHS

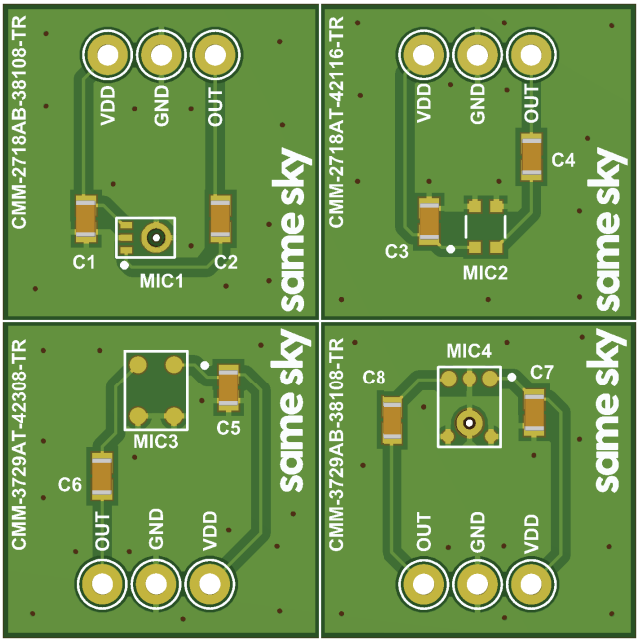
EVAL BOARD

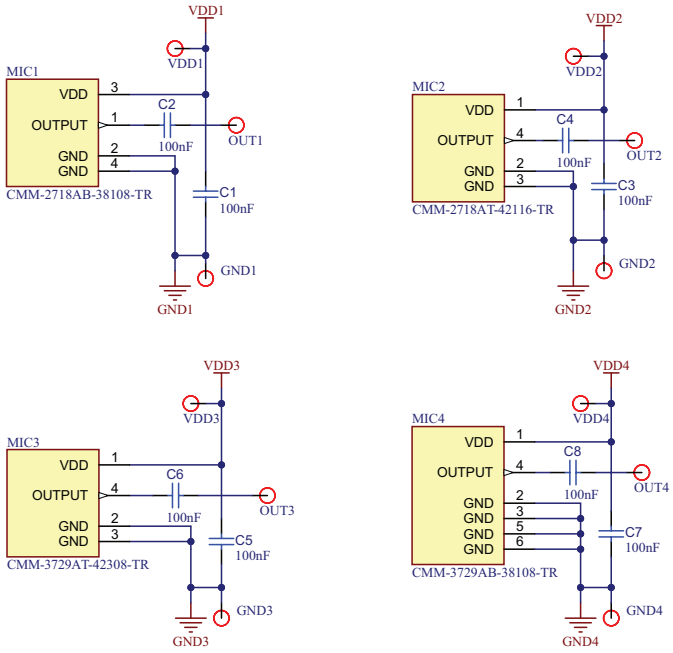
	circuit	technology	output	acoustic port	size (mm)	sensitivity typ (dB)	current max (µA)
CMM-2718AB-38108-TR	MIC1	MEMS	analog	bottom	2.75 x 1.85	-38	150
CMM-2718AT-42116-TR	MIC2	MEMS	analog	top	2.75 x 1.85	-42	250
CMM-3729AT-42308-TR	MIC3	MEMS	analog	top	3.76 x 2.95	-42	250
CMM-3729AB-38108-TR	MIC4	MEMS	analog	bottom	3.76 x 2.95	-38	250

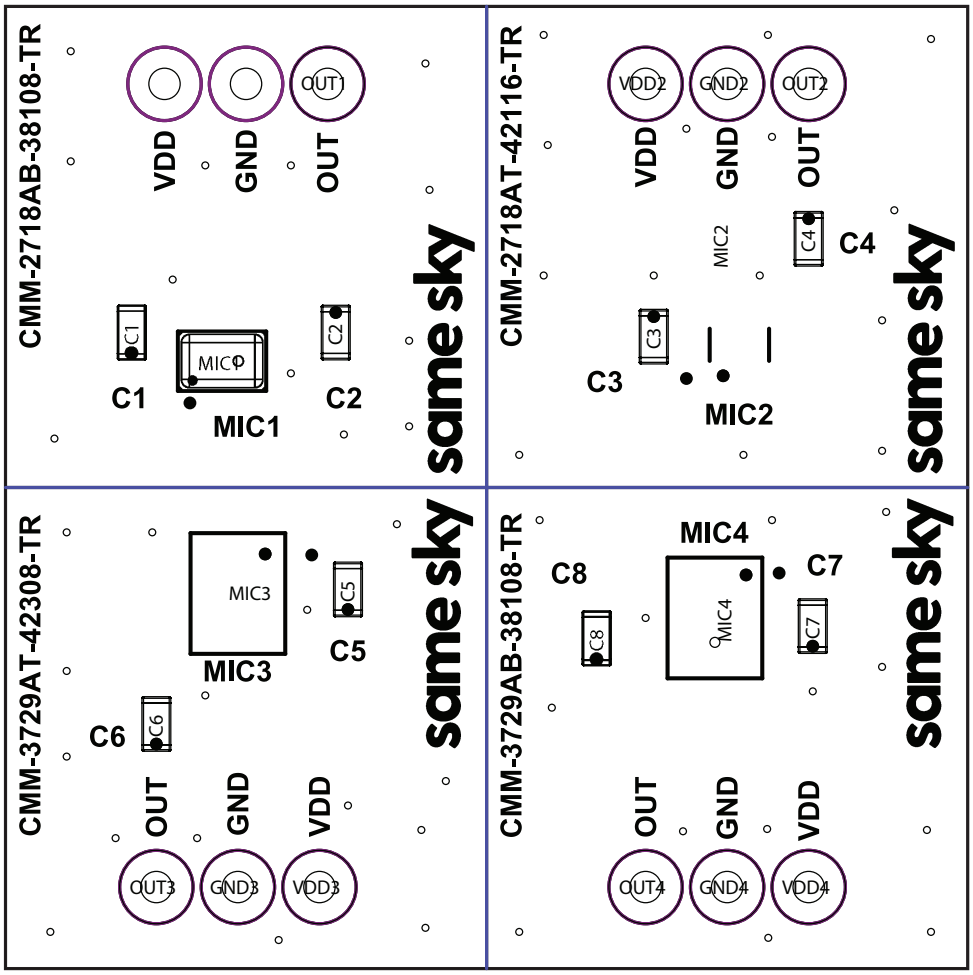
OPERATIONAL INSTRUCTIONS

This Same Sky MEMS microphone evaluation board consists of four independent analog microphone evaluation circuits. Top and bottom sound port options are provided. External bypass capacitors are included on the power supply rails of the evaluation boards and DC blocking capacitors are placed in the analog output signal paths. A DC power supply of 1.6~3.6 Volts should be connected between the VDD and GND pins of the board to be evaluated. Please refer to the respective data sheets for proper connections to the remaining signal pins.

CIRCUIT DIAGRAMS & BOARD LAYOUTS







CMM-2718AB-38108-TR

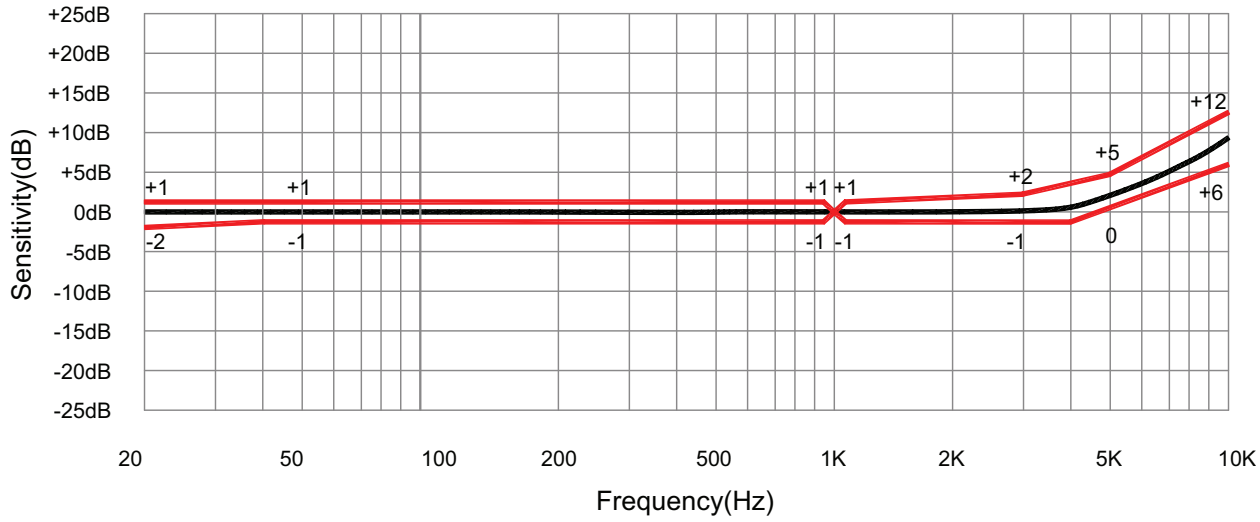
WWW.SAMESKYDEVICES.COM/PRODUCT/RESOURCE/CMM-2718AB-38108-TR.PDF

ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	at 94 dB SPL, 1 kHz	-39	-38	-37	dB
supply voltage (V_{DD})		1.6	2.0	3.6	V
current consumption (I_{DSS})	V_{DD} = 2.0 V		75	150	µA
frequency (f)		100		10,000	Hz
signal to noise ratio (S/N)	at 94 dB SPL, 1 kHz (A-weighted)		65		dBA
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz		0.15		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		130		dB SPL
output impedance (Zout)	at 1 kHz			400	Ω
PSRR	200 mVp-p sine wave @ 1 kHz, V_{DD} = 2.0 V		60		dB
PSR	100 mVp-p square wave @ 217 Hz, V_{DD} = 2.0 V		-90		dBV(A)

Notes: 1. All specifications measured at 23±2°C, humidity at 55±20%, unless otherwise noted.

FREQUENCY RESPONSE CURVE



CMM-2718AT-42116-TR

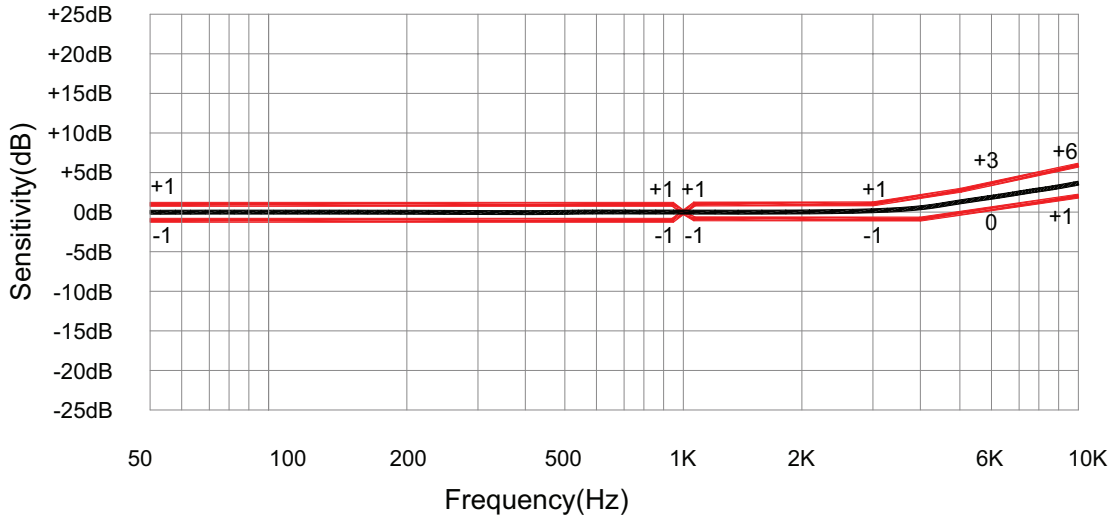
WWW.SAMESKYDEVICES.COM/PRODUCT/RESOURCE/CMM-2718AT-42116-TR.PDF

ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	at 94 dB SPL, 1 kHz	-43	-42	-41	dB
supply voltage (V_{DD})		1.6	2.0	3.6	V
current consumption (I_{DSS})	V_{DD} = 2.0 V			250	µA
frequency (f)		50		10,000	Hz
signal to noise ratio (S/N)	at 94 dB SPL, 1 kHz (A-weighted)		57		dBA
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz		0.10		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		130		dB SPL
output impedance (Zout)	at 1 kHz			300	Ω
PSRR	200 mVp-p sine wave @ 1 kHz, V_{DD} = 2.0 V		75		dB
PSR	100 mVp-p square wave @ 217 Hz, V_{DD} = 2.0 V		-102		dBV(A)

Notes: 1. All specifications measured at 23±2°C, humidity at 55±20%, unless otherwise noted.

FREQUENCY RESPONSE CURVE



CMM-3729AT-42308-TR

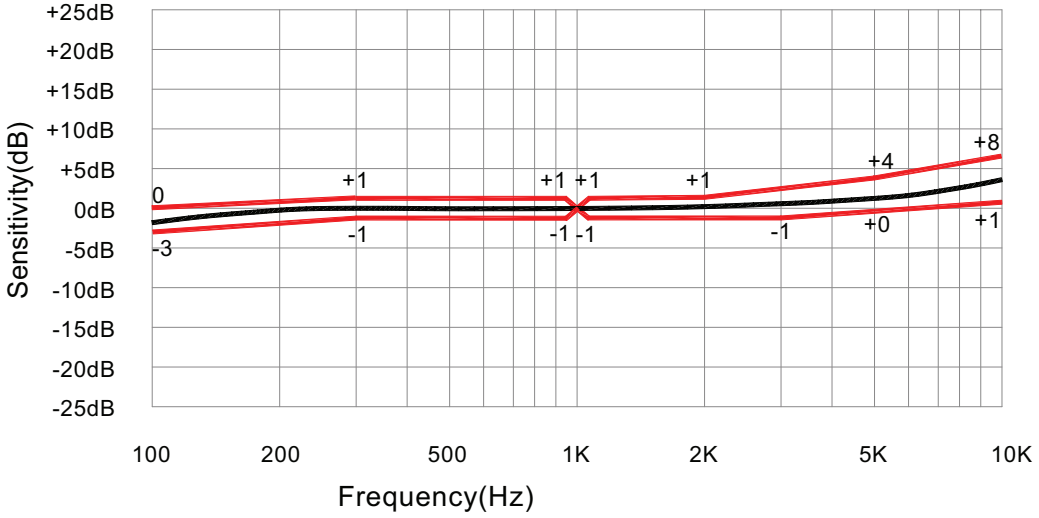
WWW.SAMESKYDEVICES.COM/PRODUCT/RESOURCE/CMM-3729AT-42308-TR.PDF

ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	at 94 dB SPL, 1 kHz	-45	-42	-39	dB
supply voltage (V_{DD})		1.6	2.0	3.6	V
current consumption (I_{DSS})	V_{DD} = 2.0 V		155	250	µA
frequency (f)		100		10,000	Hz
signal to noise ratio (S/N)	at 94 dB SPL, 1 kHz (A-weighted)		58		dBA
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz		0.1		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		132		dB SPL
output impedance (Zout)	at 1 kHz			300	Ω
PSRR	200 mVp-p sine wave @ 1 kHz, V_{DD} = 2.0 V		75		dB
PSR	100 mVp-p square wave @ 217 Hz, V_{DD} = 2.0 V (A-weighted)		-105		dBV(A)

Notes: 1. All specifications measured at 23±2°C, humidity at 55±20%, unless otherwise noted.

FREQUENCY RESPONSE CURVE



CMM-3729AB-38108-TR

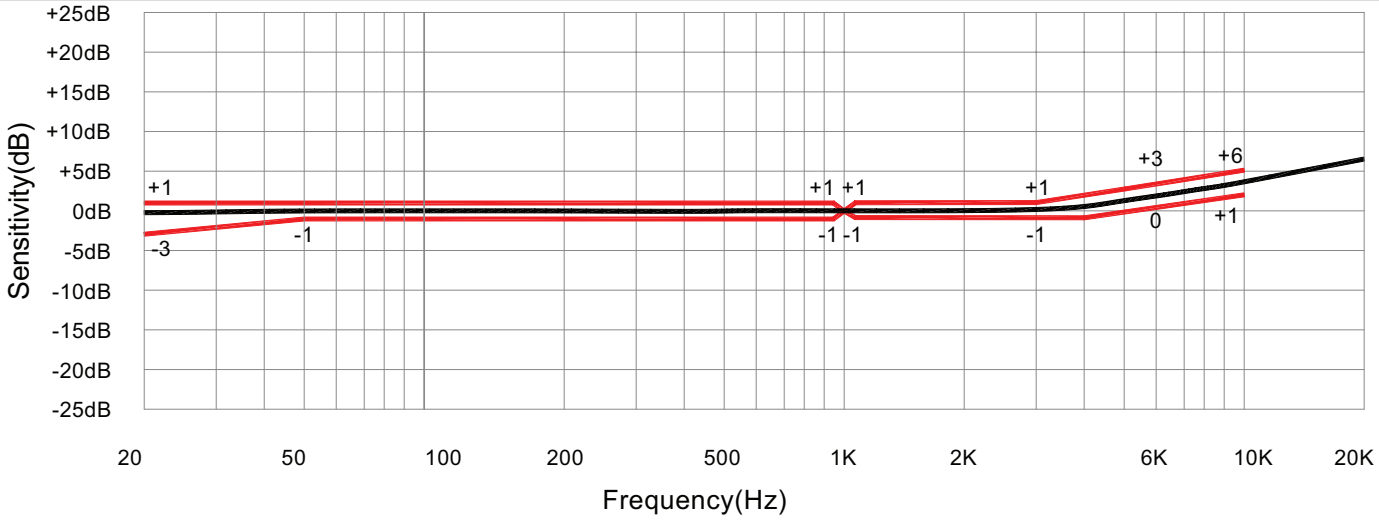
WWW.SAMESKYDEVICES.COM/PRODUCT/RESOURCE/CMM-3729AB-38108-TR.PDF

ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	at 94 dB SPL, 1 kHz	-39	-38	-37	dB
supply voltage (V_{DD})		1.6	2.0	3.6	V
current consumption (I_{DSS})	V_{DD} = 2.0 V			250	µA
frequency (f)		20		20,000	Hz
signal to noise ratio (S/N)	at 94 dB SPL, 1 kHz (A-weighted)		64		dBA
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz		0.15		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		128		dB SPL
output impedance (Zout)	at 1 kHz			300	Ω
PSRR	200 mVp-p sine wave @ 1 kHz, V_{DD} = 2.0 V		75		dB
PSR	100 mVp-p square wave @ 217 Hz, V_{DD} = 2.0 V (A-weighted)		-105		dBV(A)

Notes: 1. All specifications measured at 23±2°C, humidity at 55±20%, unless otherwise noted.

FREQUENCY RESPONSE CURVE



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Audio IC Development Tools ***category:***

Click to view products by Same Sky ***manufacturer:***

Other Similar products are found below :

124 ETLUM2-SOM ISD5102EY 1381 DA7217-EVAL AC102014 CDB5366 CDB5340 CDB42518 CDB3318 CDB3310 LM4780TABD/NOPB 2130 2220 2341 2342 2716 2716 DFR0064 DFR0119 2217 MIKROE-2720 EV_ICS-40300-FX SEN-14262 DA7218-EVAL 3357 EV_ICS-43434-FX 3346 EV_ICS-40618-FX 3436 BOB-12758 3421 SOMO-II 124 1552 1713 1752 1790 2133 3492 3885 4227 4346 4384 5769 5770 5791 6049 987 AS3418_EK_ST