International Components Corporation

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Specifications Sheet

Product Type : ***Digital MEMS Surface Mount Microphone***

Product Series : ***MEOM4737***

Description : ***MEMS OMN DIGITAL 4.72 X 3.76D 1.25H 2V 29/3 RoHS S/N 59 dB***

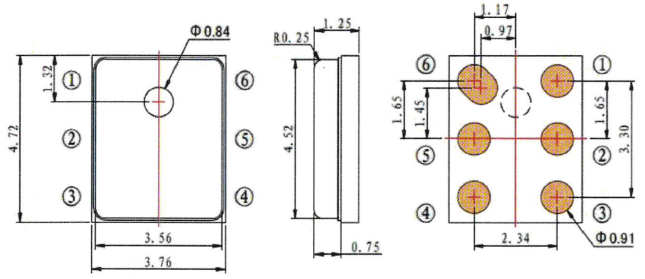
Electrical Specifications

Test Conditions: 23.0 ± 2.0 °C, 55.0 ± 20.0 % R.H., VDD = 2.0 V. fclock = 2.4 MHz

Model No.		*MEOM-4737TD-00-493*				
Parameter	*Symbol*	*Condition*	*Limits*			*Unit*
			Min.	*Typ*	*Max.*	
Supply Voltage	V_{DD}		*1.6*	----	*3.6*	*V*
Supply Current	I_{DD}	F_{CLOCK} < 1.0 K Hz	----	*540.0*	----	µA
Sensitivity	*S*	*94.0 dB SPL @ 1.0 KHz*	*- 32.0*	*- 29.0*	*- 26.0*	*dB*
Directivity	*D(θ)*		*Omni - Directional*			
Signal to Noise Ratio	*S / N*	*94.0 dB SPL @ 1.0 KHz, (A - weighted)*	----	*59.0*	----	*dB*
Sleep Current	I_{SLEEP}	F_{CLOCK} < 1.0 K Hz	----	*3.0*	*4.0*	µA
Total Harmonic Distortion	*THD*	*100.0 dB SPL@ 1.0 K Hz*	----	----	*1.0*	*%*
		120.0 dB SPL@ 1.0 K Hz	----	----	*10.0*	*%*
Power Supply Rejection	*PSR*	*100.0 mVpp square wave @ 217.0 Hz, A-weighted*	----	*- 90.0*	----	*dBFS*
Fall-asleep Time		(F_{CLOCK} < 1.0 K Hz)	----	----	*10.0*	*USEC*
Wake-up Time		(F_{CLOCK} ≥ 1.0 M Hz)	----	----	*10.0*	*MSEC*
Short Circuit Current	I_{SC}	*Grounded Data Pin*	----	*1.0*	*10.0*	*mA*
Output Load	C_{LOAD}	----	----	----	*100.0*	*pF*
Data Fomat	----	----	*1 - Bit PDM*			
Clock Frequency	F_{CLOCK}	----	*1.0*	*2.4*	*3.2*	*MHz*
Clock Duty Cycle	F_{DC}	----	*40.0*	----	*60.0*	*%*
Clock Rise Time	t_{CR}	----	----	----	*10.0*	*NSEC*
Clock Fall Time	t_{CF}	----	----	----	*10.0*	*NSEC*
Logic Input / Output Low	V_{IOL}	I_{OUT} = 1.0 mA	*- 0.30*	----	*0.35 x V_{DD}*	*V*
Logic Input / Output Hight	V_{IOH}	I_{OUT} = 1.0 mA	*0.65 x V_{DD}*	----	*V_{DD} + 0.3*	*V*
Delay Time for Valid Data	t_{DV}	----	*18.0*	----	*60.0*	*NSEC*
Delay Time for Hight z	T_{DH}	----	*0*	----	*16.0*	*NSEC*
Terminal			SMD			
Operating Temperature			- 40.0 ~ + 105.0			°C
Storage Temperature			- 40.0 ~ + 85.0 (Microphone units with package)			°C
Weight			0.025 ± 10.0 %			*g*

Dimensions Unit : mm

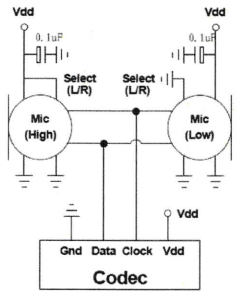
TOP VIEW SIDE VIEW BOTTOM VIEW



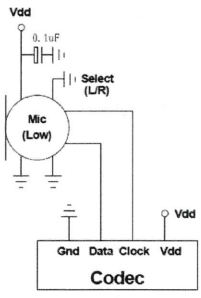
Pin Output	
Pin #	Function
1	GND
2	L/R
3	GND
4	CLOCK
5	DATA
6	VDD

Note : All dimensions are in millimeter (mm) otherwise specified.
Tolerance : ± 0.1 mm unless otherwise specified.

Recommended Interface Circuit



Double MIC



Single MIC

Modify :	Date :	By :

Approved By : NL
Date : 23 Apr 2019

Prepared By : LL
Date : 23 Apr 2019