

SC3A

MEMS Microphone Chip

Tentative Data Sheet

1. Electrical Specification

Table 2.1 Absolute Maximum Ratings

Parameter	Absolute Maximum Rating		units
Supply Voltage	-0.5 to + 20		V
Operating Temperature Range	-40 to + 85		°C
Storage Temperature Range	-40 to + 125		°C

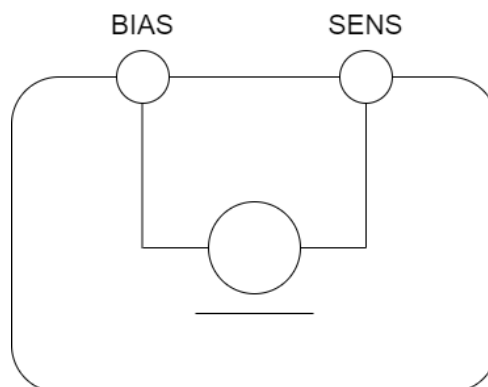
Table 2.2 Recommended Operating Conditions

Parameter	Min.	Typ.	Max.	Unit
Operating Voltage	10	11	12	V

Table 2.3 Electrical Characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	units
Static Capacitance	CSC	V=0V, f=1kHz		0.3		pF
Capacitance at Bias Voltage	CBV	f=1kHz		0.4		pF
Parasitic Capacitance	CPC			0.1		pF
Pull-in Voltage	PV		14	15	16	V

2. Block Diagram



3. Pad description and coordinates

Table 3.1 Mechanical Data

Parameter	Typical Value	units
Chip Size	0.64x0.64	mm
Membrane Size	460	μm
Back-plate size	508	μm
Position of bonding pad	See Pad Coordinates	-

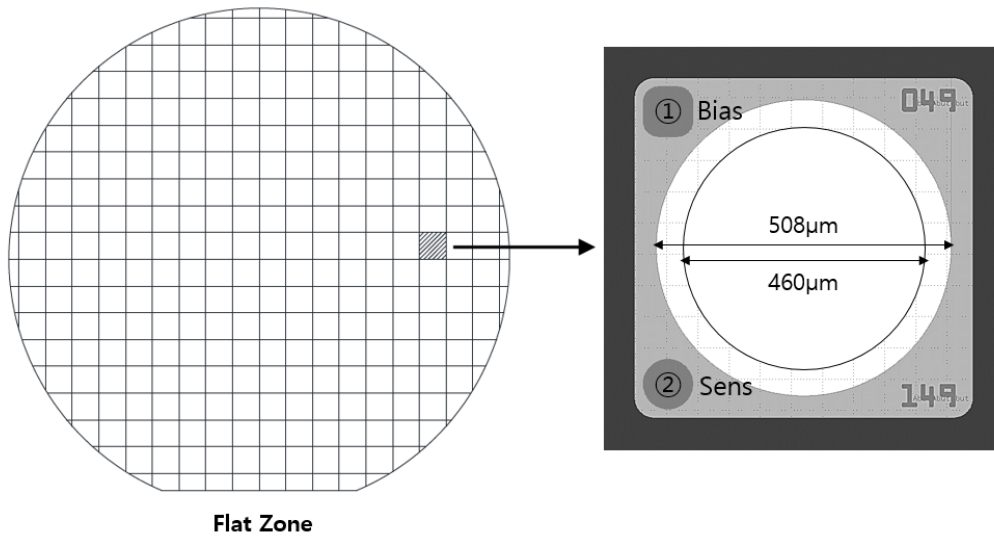


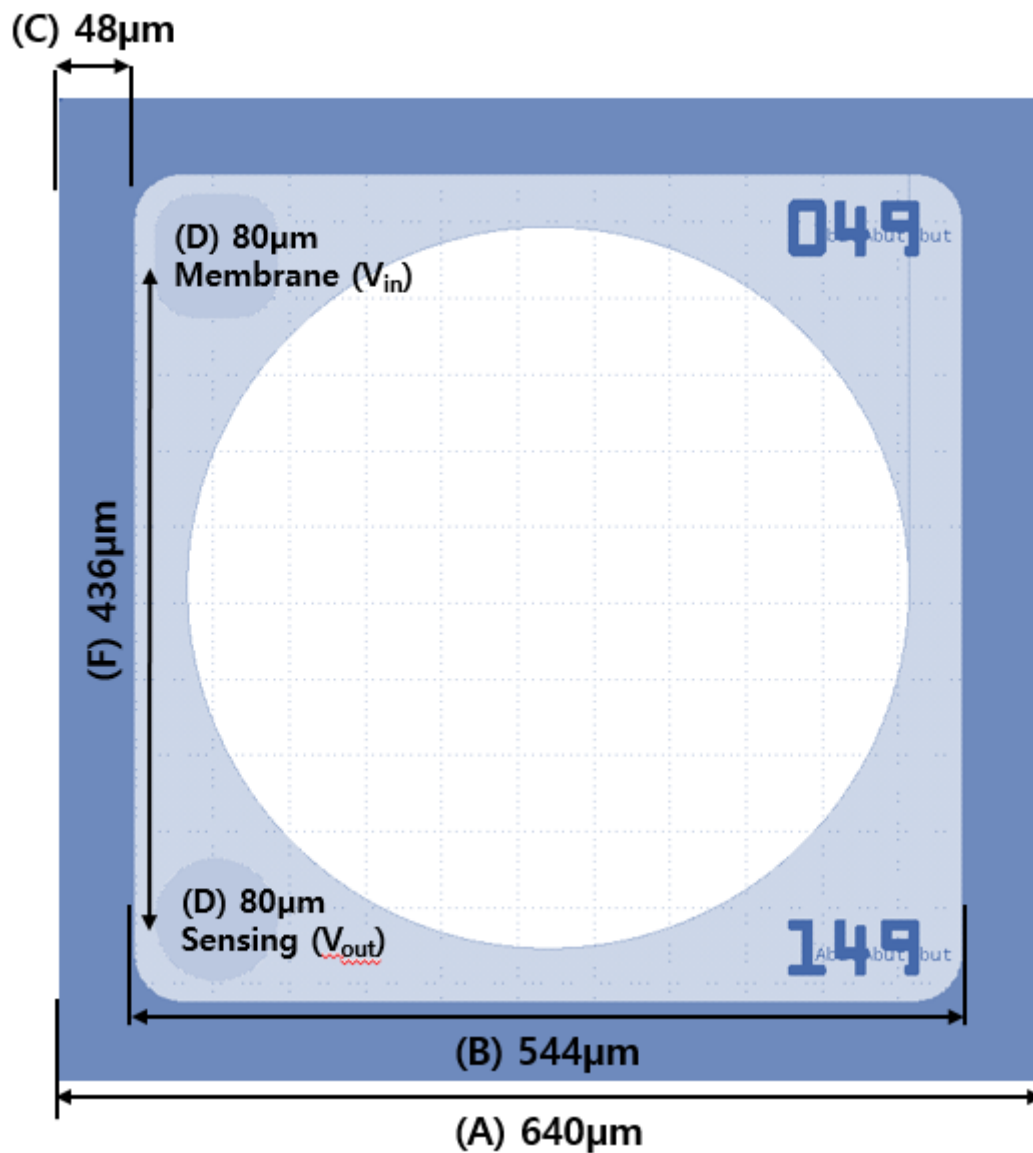
Table. 3.2 Pad coordinates

Pad No.	Pad Name	Pad Coordinate (x/y)	Pad Size	Units
1	Bias pad	-218 / 218	80x80	μm
2	Sensing pad	-218 / -218	80x80	μm

4. Wafer Specifications

Table.4.1 Wafer Outline

Parameter	Typical Value	Units
Diameter of wafer	150	mm
Flat Location / Length	[110] / 57.5 ± 2.5	mm
Wafer thickness	400 ± 20	μm
Scribe width	96	μm



Position	Description	Size
(A)	Chip (Cell + Scribe lane)	640 μm
(B)	Cell	544 μm
(C)	Scribe lane	48 μm
(D)	PAD Contact	80 μm
(E)	Pad to Pad	436 μm