



Product brief

IM69D127V11

IP57 dust and water resistant digital PDM XENSIV™ MEMS microphone

Product overview

Key parameters	Specifications
Environmental robustness	IP57
Sensitivity @ 1 kHz, 94 dB SPL	-34 ±1 dBFS
Signal-to-Noise Ratio (SNR)	69 dB (A)
Acoustic overload point (1/10% THD)	123/127 dB SPL
Current consumption	980 µA @ 3.072 MHz 300 µA @ 768 kHz
Low frequency roll off (LFRO)	40 Hz
Group delay @ 1 kHz	9 µs
Supply voltage	1.62 to 3.6 V
Interface	Digital PDM
Port location	Bottom port
Package dimensions	3.60 x 2.50 x 1.00 mm

Key features

- > Component level IP57 water and dust resistant
- > 69 dB(A) signal-to-noise ratio
- > Acoustic Overload Point (AOP) of 127 dB SPL
- > Tight sensitivity (-34 ±1 dB) tolerance
- > 40 Hz low frequency roll-off
- > Digital PDM output
- > 980 µA current consumption

Benefits

- > High performance, IP57 robust microphone in small form factor
- > Far field and low volume audio pick-up
- > Clear audio signals even for highest sound pressure levels
- > Highest precision of audio beams and algorithms

Typical applications

- > Active Noise Cancellation (ANC): headphones, earphones, and TWS
- > Voice User Interface (VUI): e.g. smart speaker, home automation and IOT devices
- > High quality audio capturing: e.g. cameras, laptops, tablets, and conference systems

Package information

