

## Description

Miniature electret condenser microphone for communication device applications.

## Features

- Standard form factor with “best in class” performance
- Ski - slope roll - off: less sensitivity for low frequency rumbling
- To be connected with 2 or 3 wires
- Low noise amplifier
- Superior EMI and ESD suppression
- Highly resistance to mechanical shock



## Description

All Sonions' microphone families are based on an electret condenser principle, which provides advanced performance in a miniature package. The microphone Integrated Circuit design uses the latest technology to provide the lowest noise and highest EMI protection.

The 6500-microphone packs superior sensitivity and noise performance in today's most commonly used form factor. It has the footprint as the industry standard 6200-microphone series, but the optimized cartridge design and new ASIC gives a 2dB higher sensitivity and 1dB lower noise.

The 65JB81 is an omnidirectional microphone specifically tuned for noisy applications. The microphone is tuned to be less sensitive for low frequency rumbling, increasing speech intelligibility. The construction is made to withstand severe environmental conditions. All these features makes the 65JB81 the ideal solution for discrete and comfortable communication devices.

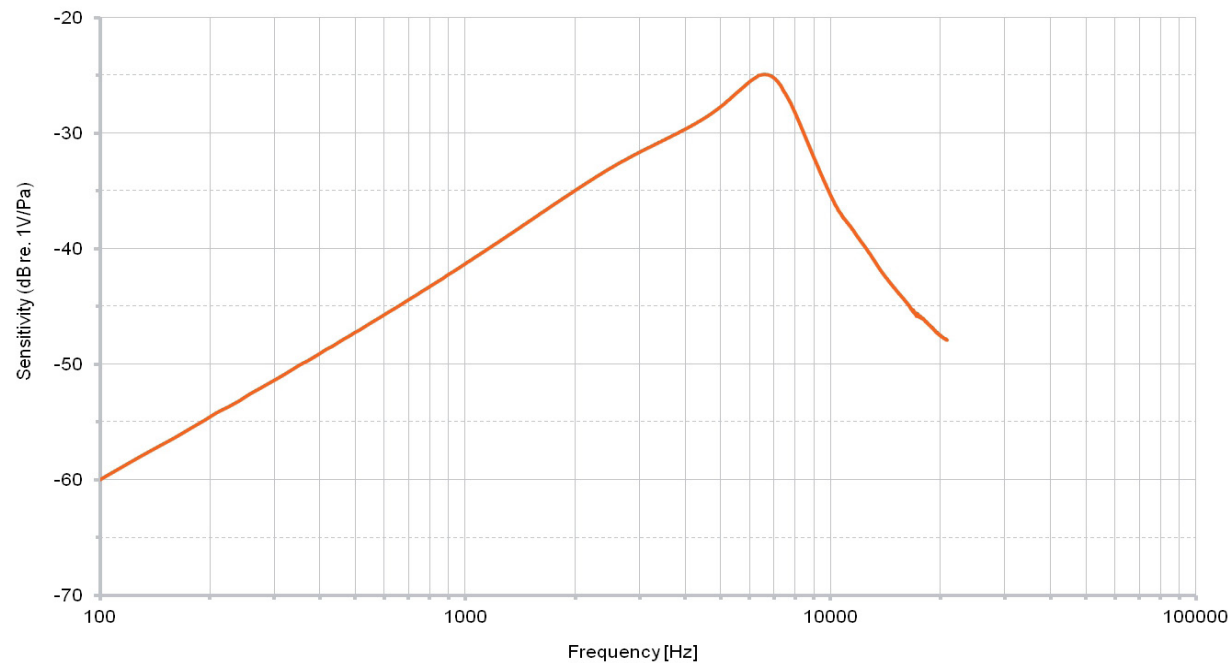
Examples of applications:

- Surveillance/security communication radios
- Military communication
- Boom microphones
- Hearing aids
- Mobile phones

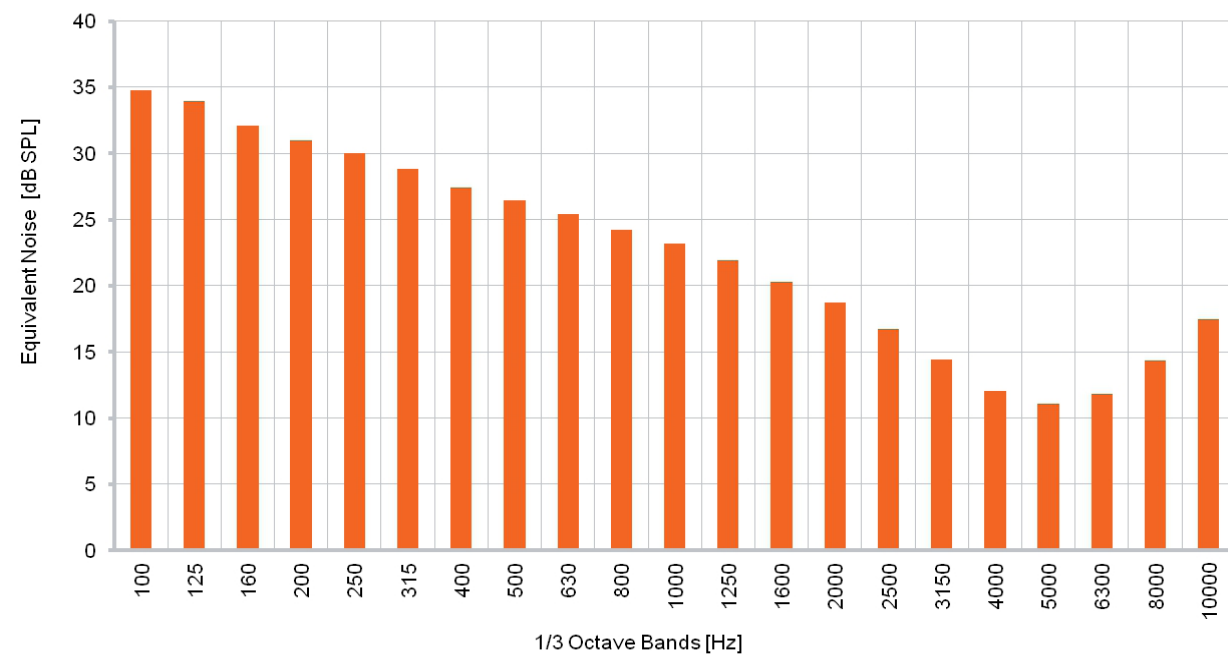
For smaller microphones we refer to the 5000-series

For other variations, please visit the Sonion website: [www.sonion.com](http://www.sonion.com)

Graphs  
Typical response curve



Typical 1/3 octave equivalent noise



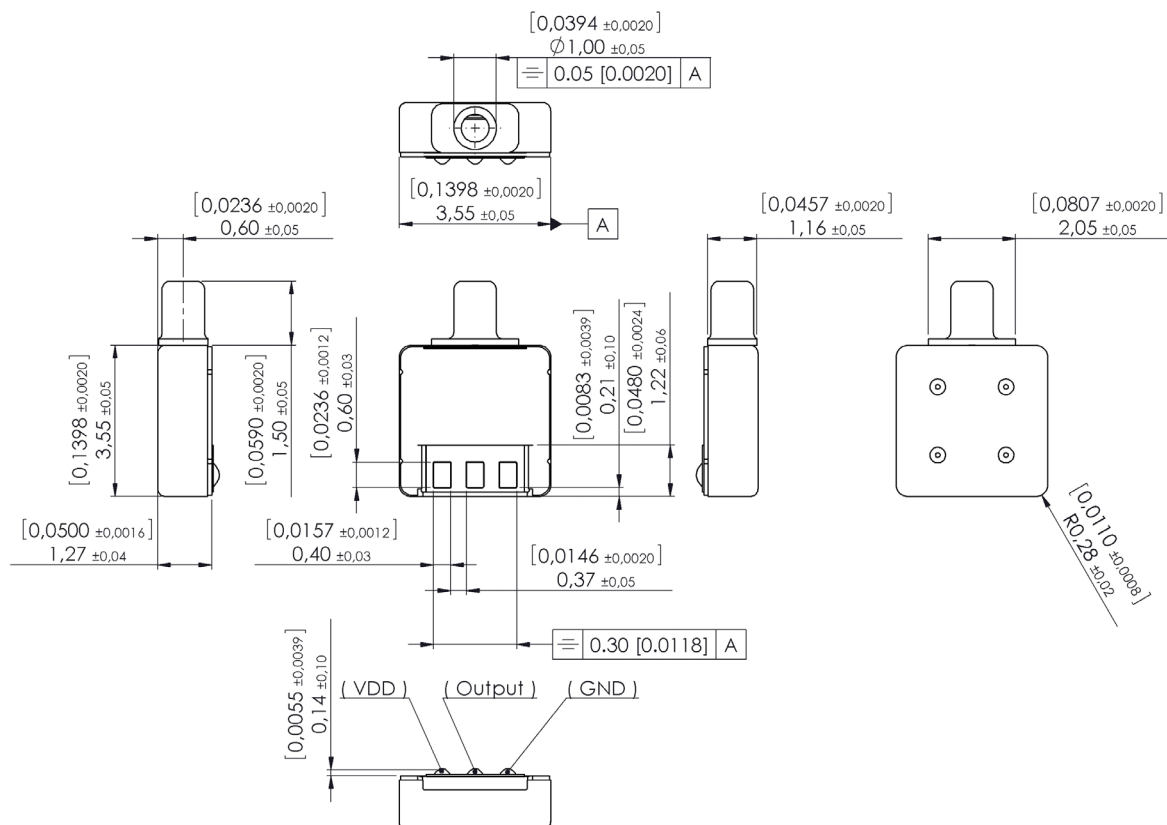
Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible.

## Data

All parameters are specified at 0.9 V and 1 MOhm // <200pF load impedance, ACcoupled with 1μF, unless specified otherwise. Environmental conditions: 23°C (73.4°F), 50% RH.

Parameters		Min	Typ	Max	Unit	Comments
Sensitivity *	@ 300 Hz	-12.5	-10.5	-8.5	dB	re. 1 kHz value
	@ 1 kHz	-45	-42	-39	dB	re. 1V per Pascal
	@ 7 kHz	14	17	20	dB	re. 1 kHz value
Peak frequency			7		kHz	Approx.
Equivalent noise (A-weighted)			37	39	dB SPL	
Power supply feedthrough			-14	-12	dB	
Battery voltage range		0.8	0.9	5	VDC	
Battery drain		10	17	30	μA	
Output impedance **		3	4.5	6	kOhm	
Input-referred vibration sensitivity			67		dB SPL/g	1 kHz ref.
Input-referred EMI noise	0.8-0.96 Ghz			25	dB SPL	according SMI 255, E-75 V/m
	1.8-2.0 GHz			25	dB SPL	according SMI 255, E-50 V/m
Operating temperature range		-17	23	63	°C	
Storage temperature range		-40		63	°C	
ESD protection level: Class 2 according to MIL-STD-750D, test method 1020,2.						
Apply protection in accordance with IEC 61340-5-1 and 61340-5-2.						
* 1 kHz sensitivity at 1.3 VDC supply: -41 dB re. 1V/Pa typ.						
** Output impedance at 1.3 VDC supply: 3 kOhm typ.						

## Packaging



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