

Description

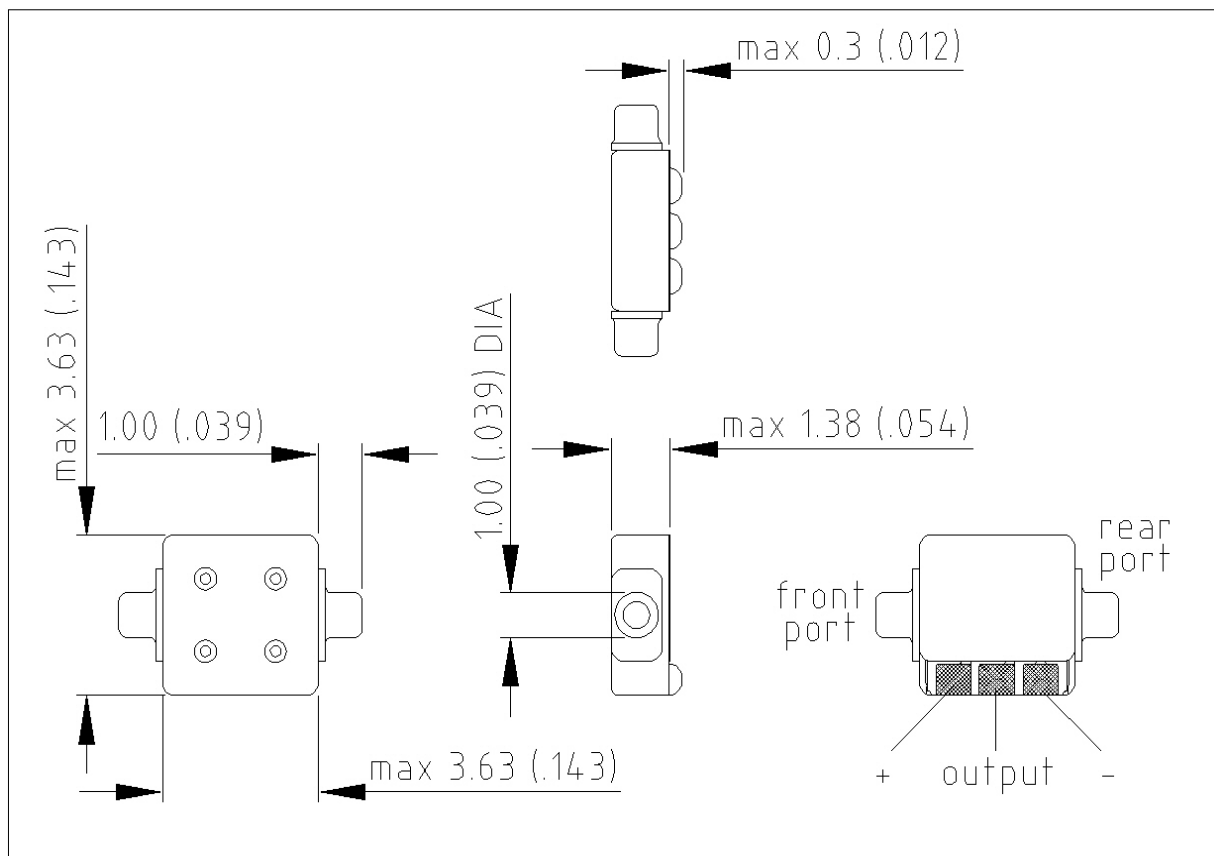
The 6107 is a directional microphone for hearing instruments. Due to the port location, this unit is excellent for use in an ITE and a BTE configuration. This small size directional microphone can perfectly be combined with the small omni-directional microphone 6046 or 6068. The microphone is equipped with a special integrated amplifier to increase the sensitivity. It has a decreased sensitivity for high frequency spurious signals and an improved ESD protection.



Features

- Super thin design - Great CIC application
- Two-stage low noise CMOS amplifier
- Integrated cellular protection (superior EMI suppression)
- Superior ESD protection

Product drawing - Dimensions in mm [inch]



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

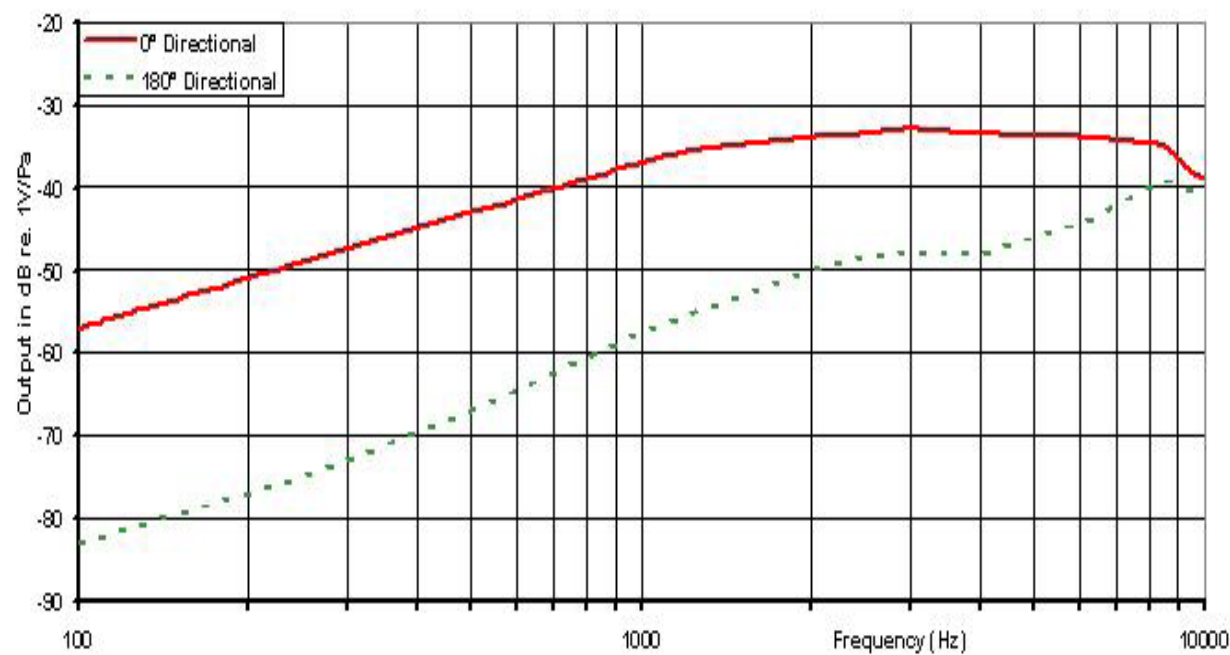
Specifications

All parameters are specified at 1.3V and 1 MOhm // <200pF load impedance, AC-coupled with 1μF, unless specified otherwise. Environmental conditions: 23°C (73.4°F), 50% RH.

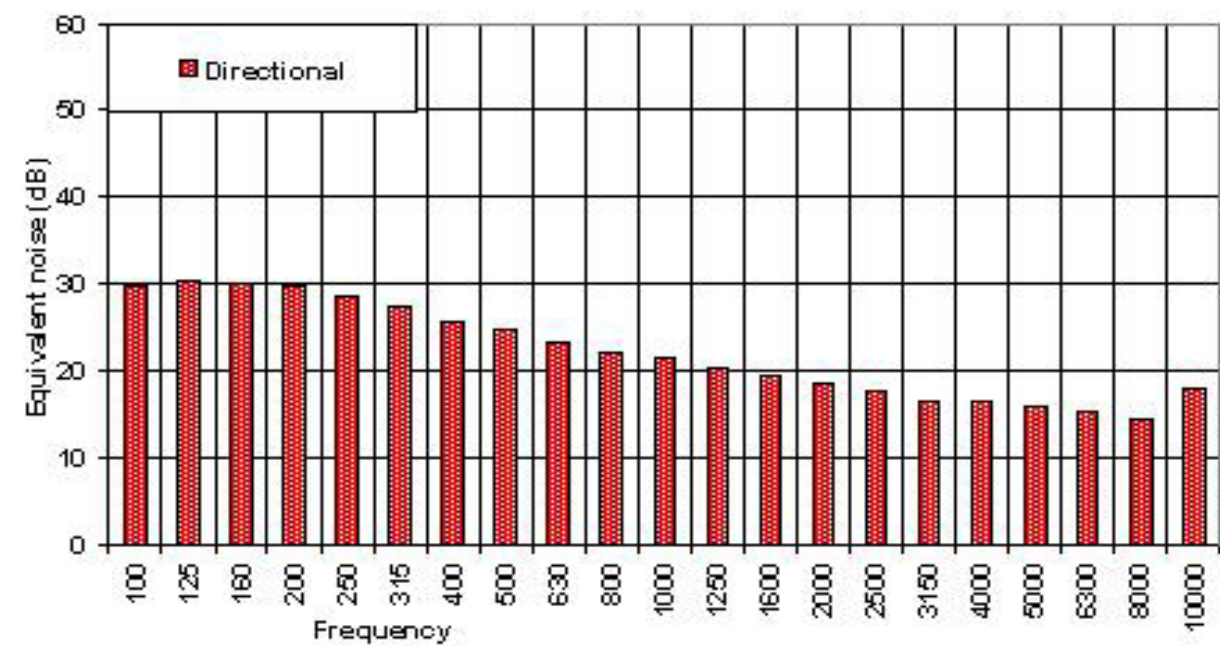
Parameters		Min	Typ	Max	Unit	Comments
Sensitivity *	@ 300 Hz	-13	-10	-7	dB	re. 1 kHz value
	@ 1 kHz	-41	-37	-33	dB	re. 1V per Pascal
	@ 3 kHz	2.5	5.5	8.5	dB	re. 1 kHz value
Peak frequency			3		kHz	Approx.
Equivalent noise (A-weighted)			34	37	dB SPL	
Power supply feedthrough			-16	-14	dB	
Battery voltage range		0.9	1.3	5	VDC	
Battery drain		20	40	50	μA	
Output impedance **		2	3	5.5	kOhm	
Delay time		11	14	17	μs	
AI-DI			5.2		dB	
ESD protection level		5			kV	
Humidity coefficient of sensitivity			0.04		dB/%RH	
Operating temperature range		-17	23	63	°C	
Storage temperature range		-40		63	°C	
ESD protection level: Class 3 according to MIL-STD-750D, test method 1020,2.						
Apply protection in accordance with IEC 61340-5-1 and 61340-5-2.						
* Sensitivity change on reducing supply to 0.9 VDC: 3 dB max.						
** Output impedance at 0.9 VDC supply: 7.5 kOhm max.						

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Typical response curve

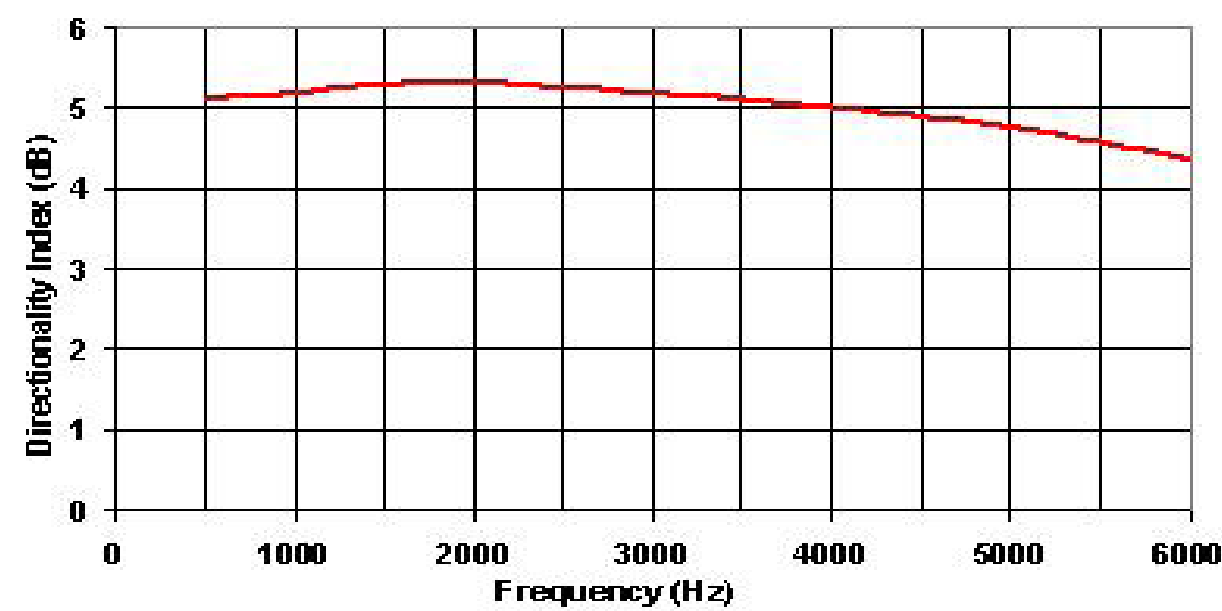


Typical 1/3 octave equivalent noise

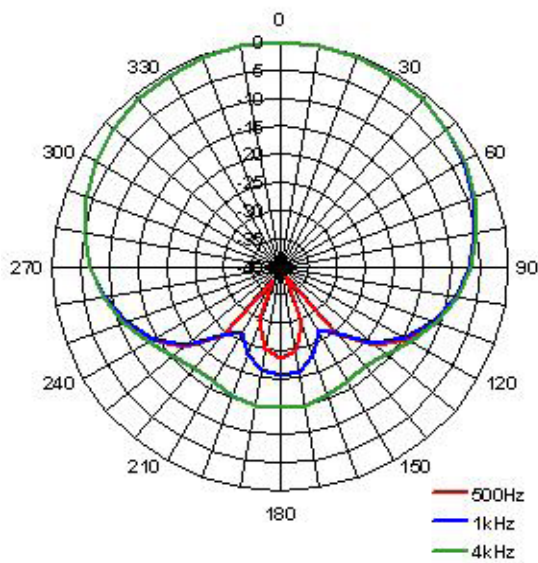


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Typical response curve



Polar plot



Note: when tubing is applied the polar responses will change according to the new port spacing

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