

Patents pending

V. 0.1 - Jul 2004

### Description

Miniature magnetic receiver (Balanced Armature Type) for use in hearing aids.

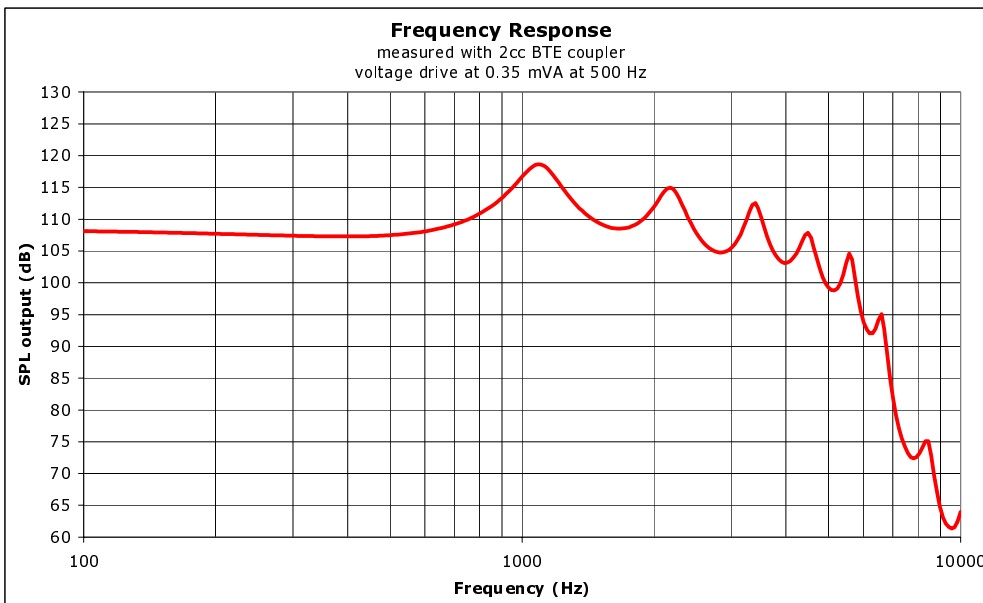


### Features

- Ideal for ITE and BTE applications
- Specifically designed for digital applications
- 1/2 the size of a 3300 and 1900 receivers
- Broadband output
- Zero bias configuration

### Typical response curve

Refer to specifications section for measurement conditions.



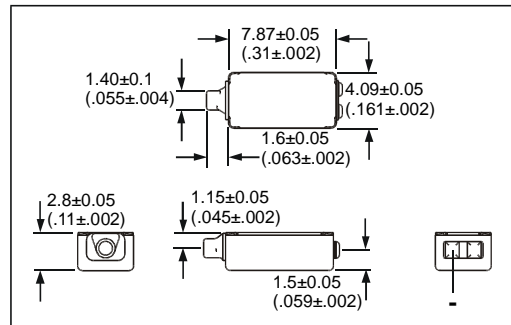
Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible. Receivers series 3100 can produce very high sound pressure levels. When such receivers are applied in hearing instruments or other communications equipment special attention should be paid to this capacity in order to prevent possible hearing damage.

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### Mechanical Data

Weight	0.3 g
Case material	Ni80Mo5Fe15
Solder pad content	Sn62Pb36Ag2
Dimensions	Refer to outline drawing

### Dimensions in mm. (inches)



### Specifications

Measurement specifications:

- The acoustic termination consists of:  
8 mm x 1 mm ID + 28 mm x 1.5 mm ID + 25 mm x 2 mm ID + 18 mm x 3 mm ID + 2 cc coupler.
- Drive is voltage drive of 0.21 VRMS (0.35 mVA at 500 Hz) unless specified otherwise.

Acoustic Parameters		Min	Typ	Max	Unit	Comments
Sensitivity	@ 200 Hz	104.5	107.5	110.5	dB	
	@ 300 Hz	104.5	107.5	110.5	dB	
	@ 500 Hz	104.5	107.5	110.5	dB	
Peak 1	frequency	925	1075	1225	Hz	
	output	116	118.5	121	dB	
Valley 1	frequency	1425	1675	1925	Hz	
	output	105.5	108.5		dB	
Peak 2	frequency	1975	2175	2375	Hz	
	output	112.5	115	117.5	dB	
Valley 2	frequency	2575	2825	3075	Hz	
	output	101.5	104.5		dB	
Peak 3	frequency	3100	3400	3700	Hz	
	output	110	112.5	115	dB	
Valley 3	frequency	3725	3975	4225	Hz	
	output	100.5	103		dB	
Peak 4	frequency	4250	4500	4750	Hz	
	output	104.5	107.5	110.5	dB	
Valley 4	frequency	4900	5150	5400	Hz	
	output	95.5	98.5		dB	
Peak 5	frequency	5175	5575	5975	Hz	
	output	100	104.5	109	dB	
THD	@ 1/3 x pkf 1			5	%	
	@ 1/2 x pkf 1			5	%	
Output @ peak frequency 1			136		dB	100 mVA input
Electric Parameters		Min	Typ	Max	Unit	Comments
Impedance (1 kHz)		233	291	349	Ohm	
Impedance (500 Hz)		99	124	149	Ohm	
DC resistance @ 20 °C		70	82	94	Ohm	
Additional Parameters		Min	Typ	Max	Unit	Comments
Shock resistance		15000			g	85% survival rate with THD @ 350 Hz < 10%
Storage temperature range		-40		63	°C	

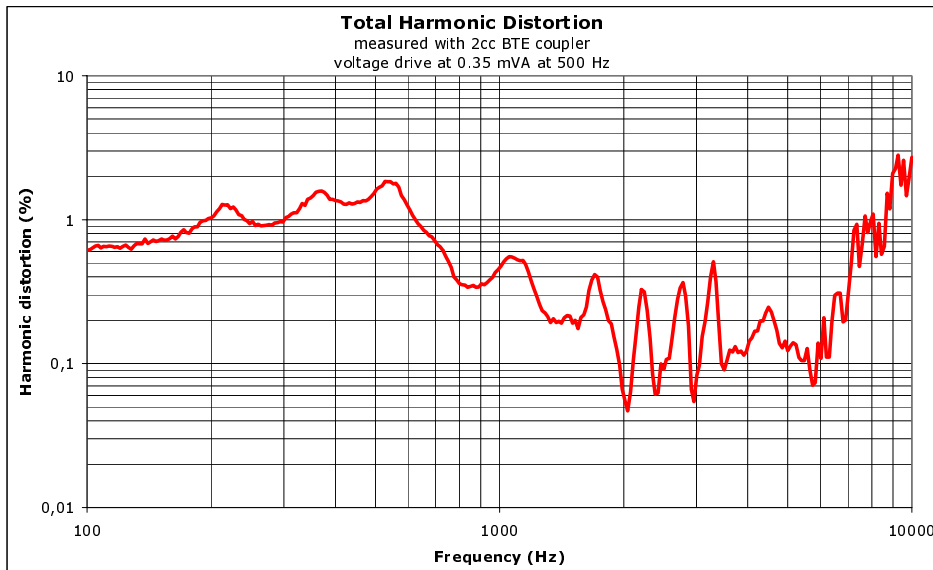
A positive voltage applied to the terminals will result in an increase in pressure in the sound outlet.

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### THD vs Frequency



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