

# Data Sheet



receiver 33A029M

3332 - 3023871  
Version: 1 26-MAR-2010

## Description

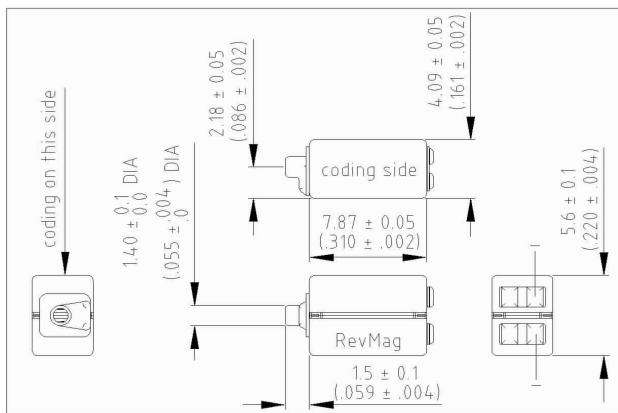
Miniature magnetic receiver (balanced armature type) for use in hearing aids.

## Features

- Perfect for higher power premium BTE applications
- Tandem, twin-motor performance
- Significantly reduced mechanical vibration
- Specifically designed for digital applications
- Same the size as a 1900 receiver
- Broadband output
- Improved magnetic radiation up to 15dB depending on telecoil position



## Dimensions in mm (inch)

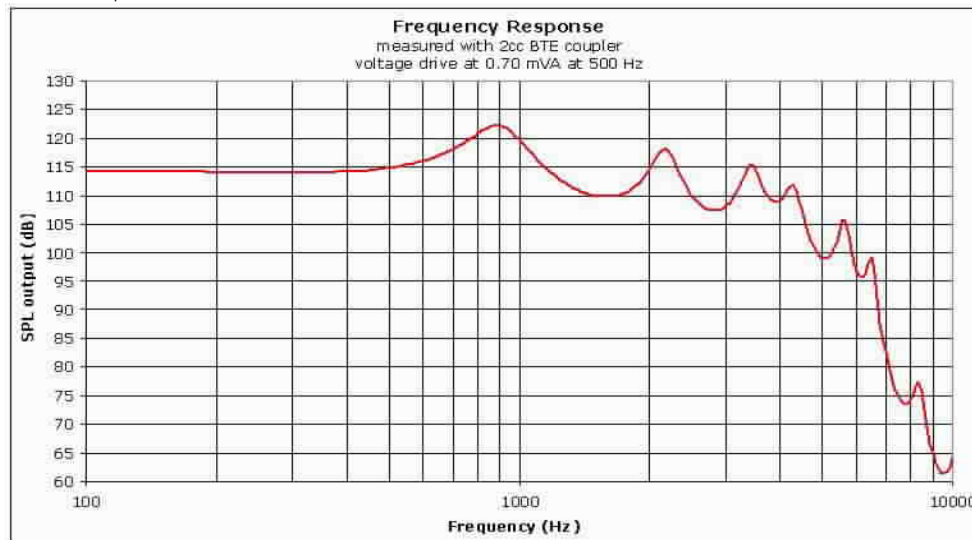


## Mechanical Data

Weight	0.6 gr.
Case material	Ni80Fe15Mo5
Solder pad content	Sn96.5Ag3.0Cu0.5
Dimensions	Refer to outline drawing

## 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 of this type 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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## 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 RMS 0.7 mVA at 500 Hz unless specified otherwise.  
Environmental conditions: 23 °C (73.4F), 50 % RH

Acoustic parameters		Min	Typ	Max	Unit	Comments
Sensitivity	@ 200 Hz	110	113	116	dB	
	@ 300 Hz	110	113	116	dB	
	@ 500 Hz	110.5	113.5	116.5	dB	
Peak 1	frequency	740	890	1040	Hz	
	output	119.5	122	124.5	dB	
Valley 1	frequency	1325	1575	1825	Hz	
	output	106	109		dB	
Peak 2	frequency	1975	2175	2375	Hz	
	output	115.5	118	120.5	dB	
Valley 2	frequency	2575	2825	3075	Hz	
	output	103	106		dB	
Peak 3	frequency	3100	3400	3700	Hz	
	output	112.5	115	117.5	dB	
Valley 3	frequency	3650	3900	4150	Hz	
	output	106.5	109		dB	
Peak 4	frequency	4025	4275	4525	Hz	
	output	108	111	114	dB	
Valley 4	frequency	4825	5075	5325	Hz	
	output	96	99		dB	
Peak 5	frequency	5175	5575	5975	Hz	
	output	100	104.5	109	dB	
THD	@ 1/3 peak			5	%	
	@ 1/2 peak			5	%	
Maximum output @ peak frequency			140		dB	100 mVA input

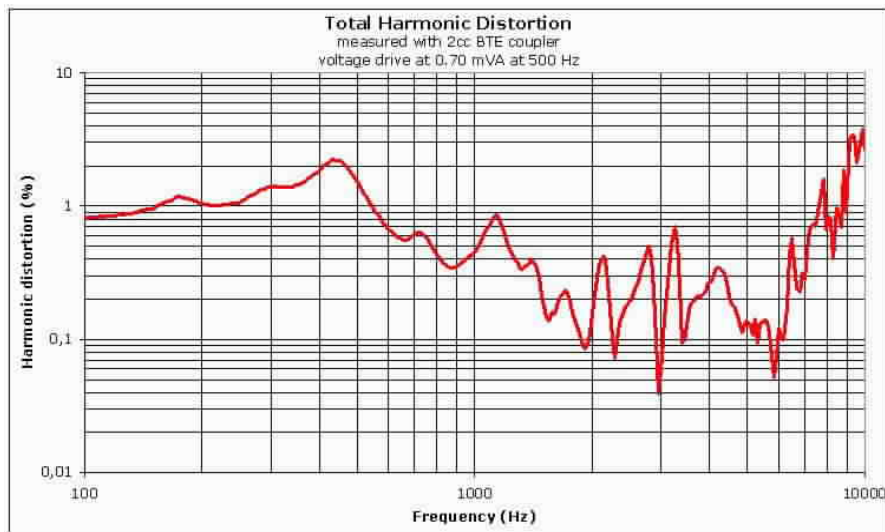
Electric parameters	Min	Typ	Max	Unit	Comments
Impedance @ 1000 Hz parallel	63	79	95	Ohm	
Impedance @ 1000 Hz series	252	316	380	Ohm	
Impedance @ 500 Hz parallel	49	62	75	Ohm	
Impedance @ 500 Hz series	198	248	298	Ohm	
DC resistance @ 20 °C parallel	40	46	52	Ohm	
DC resistance @ 20 °C series	158	182	209	Ohm	
DC bias current range					

Additional parameters	Min	Typ	Max	Unit	Comments
Shock resistance	12000			g	90% survival rate with THD @ 1/2 peak freq. < 10%
Storage temperature range	-40		63	°C	

A positive voltage applied to the negative terminal (-) will result in an increase in pressure at the sound outlet.

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### THD vs Frequency, typical, nominal input



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