

Patent Envy: US Hearing Device Patent Activity for November-December 2014

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Patent activity in the hearing aid industry continues to grow and grow more interesting. We're not Google or Apple, which ranked [#11](#) and [#13](#) for number of US patents in 2013 and are projected to rank higher in 2014. But, our industry is hanging in there even as the competition heats up for Smart wearables and augmented reality (AR).

Besides the usual two-month list of recent patents issued, today's post tallies total patent applications and patents issued. Size-wise, Cochlear and Siemens have the most in both categories, but Starkey has a lot of applications in the mill. Although there is not time or space to delve into the many applications currently under review, suffice it to say that some of them are potential game changers for our industry. A future post will peek at a few.

Hearing Device Patent Ownership

It's interesting to compare patent portfolios among the big players in our industry and track other players entering the arena.

Company/Owner/Inventor	# of Patents Issued	# Published Applications
GN Resound A/S & GN Resound North America Corporation	134	64
Oticon A/S	190	62
Phonak AG	311	62
Siemens		
Siemens Audiologische Technik GmbH	270	24
Siemens Medical Instruments PT, LTD	194	83
Starkey Laboratories, Inc	176	121
Widex A/S	119	54
Advanced Bionics AG (Zug, CH)	77	69
Advanced Bionics, LLC (Valencia, CA)	224	11
Advanced Bionics Corp. (Valencia, CA)	27	5
Cochlear Limited	422	145
Bernafon AG	33	5
Daniel R Schumaier (Tennessee)	26	28
EarLens Corp. (Redwood City, CA)	15	12
Intricon Corp. (Arden Hills, MN)	10	1
Zounds Hearing, Inc. (Phoenix, AZ)	10	1

The Bimonthly List of USPTO Patents

Description	Patent Number	Assignee	Issued
Hearing Aid Device for Frequency Compression	8855342	Siemens Medical Instruments Pte. Ltd. (Singapore)	10/24/2014
Hearing aid with a casing element	8873784	Oticon A/S (Smorum, Denmark)	10/28/2014
Hearing system and method for operating the same	8873780	Phonak AG (Stafa, Switzerland)	10/28/2014
Hearing Aid with a Casing Element	8873784	Oticon A/S (Smorum, Denmark)	10/28/2014
Hearing apparatus with own speaker activity detection and method for operating a hearing apparatus	8873779	Siemens Medical Instruments Pte. Ltd. (Singapore)	10/28/2014

Method for operating a hearing device having reduced comb filter perception and hearing device having reduced comb filter perception	8873781	Siemens Medical Instruments Pte. Ltd. (Singapore)	10/28/2014
Separate inner and outer hair cell loss compensation	8873782	Starkey Laboratories Inc. (Eden Prairie, Minn.)	10/28/2014
Audio processing pipeline for auditory prosthesis having a common, and two or more stimulator-specific, frequency-analysis stages	8873770	Cochlear Limited (Macquarie University, NSW, AU)	10/28/2014
Systems, methods, and articles of manufacture for configuring hearing prostheses	8874226	Cochlear Limited (Macquarie University, NSW, AU)	10/28/2014
Conformal electrode pad for a stimulating medical device	8874238	Cochlear Limited (Macquarie University, NSW, AU)	10/28/2014
Cochlear implant electrode lead having a cross- section with variable height	8874240	Cochlear Limited (Macquarie University, NSW, AU)	10/28/2014
Configurable FM receiver for hearing device	8879764	Oticon A/S (Smorum, Denmark)	11/04/2014
Configurable FM receiver for hearing device	8879764	Oticon A/S (Smorum, Denmark)	11/04/2014
At least partially implantable sound pick-up device with ultrasound emitter	8879755	Advanced Bionics AG (Stäfa, CH)	11/04/2014

Method of Deriving Individualized Gain Compensation Curves for Hearing Aid Fitting	8879745	Dean Robert Gary Anderson as Trustee of the D/L Anderson Family Trust	11/04/2014
Hearing Aid Microactuator Method and Apparatus for Detecting User Activities from within a Hearing Assistance Device Using a Vibration Sensor	8876689	OtoKinetics Inc. (Salt Lake City)	11/04/2014
Antenna system for a wearable computing device	8879763	Starkey Laboratories Inc. (Eden Prairie, Minn.)	11/04/2014
Assessing Neural Survival	8878735	GN Resound A/S (Ballerup, Denmark)	11/04/2014
Implantable electrical connector having unitary contacts	8880180	Cochlear Limited (Macquarie University, NSW, AU)	11/04/2014
Fitting a cochlear implant	8880181	Cochlear Limited (Macquarie University, NSW, AU)	11/04/2014
Hearing aid with integrated flexible display and touch sensor	8880181	Cochlear Limited (Macquarie University, NSW, AU)	11/04/2014
Method and apparatus for alerting a person carrying an EEG assembly	8885856	Starkey Laboratories Inc. (Eden Prairie, Minn.)	11/11/2014
System for Establishing a Conversation Group among a Number of Hearing Aids	8884767	Widex A/S (Lynge, Denmark)	11/11/2014
	8885857	Widex A/S (Lynge, Denmark)	11/11/2014

Method of Processing a Signal in a Hearing Aid, a Method of Fitting a Hearing Aid and a Hearing Aid	8885838	Widex A/S (Lyngø, Denmark)	11/11/2014
Hearing Aid with Mechanical Sound Generating Means for Function Selection	8885864	Widex A/S (Lyngø, Denmark)	11/11/2014
Semi-Permanent Hearing Aid Methods and Systems for Content	8885859	Sonion Nederland BV (Amsterdam)	11/11/2014
Processing Implantable medical device	8886206	Digimarc Corp. (Beaverton, Ore.)	11/11/2014
Transcutaneous bone conduction device vibrator having movable magnetic mass	8885837	Cochlear Limited (Macquarie University, NSW, AU)	11/11/2014
Modular Hearing instrument	8891795	Cochlear Limited (Macquarie University, NSW, AU)	11/18/2014
Pharmaceutical agent delivery in a stimulating medical device	8885858	GN Resound A/S (Ballerup, Denmark)	11/18/2014
Remote control for a hearing assistance device	8892201	Cochlear Limited (Macquarie University, NSW, AU)	11/18/2014
Hearing Aid with Signal Enhancement	8891793	Starkey Laboratories Inc. (Eden Prairie, Minn.)	11/18/2014
Smoothing method for suppressing fluctuating artifacts during noise reduction	8891777	GN Resound A/S (Ballerup, Denmark)	11/18/2014
Cochlear implant systems including magnetic flux redirection means	8892431	Siemens Audiologische Technik GmbH (Erlangen, Germany)	11/18/2014
Optical Scanning Device	8897883	Advanced Bionics AG (Stäfa, CH)	11/25/2014
	8900126	United Sciences LLC (Atlanta)	12/02/2014

Antenna Diversity for Magnetic Induction Radio Inflatable Ear Mold with Protected Inflation Air Inlet In-Ear Device with Selectable Frequency Response Battery Door and Hearing Device Method and Device for Frequency Compression in a Hearing Aid Circuit Arrangement for Adjusting the Output Power And/or the Frequency Response of a Power Amplifier for a Hearing Aid Device Hearing Aid Apparatus and Method Method and device for frequency compression in a hearing aid Method and Acoustic Signal Processing System for Interference and Noise Suppression in Binaural Microphone Configurations	8902772	NXP B.V. (Eindhoven, Netherlands)	12/02/2014
	8903113	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/02/2014
	8903114	Sonomax Technologies Inc. (Montreal, QC, Canada)	12/02/2014
	8903112	GN Resound A/S (Ballerup, Denmark)	12/02/2014
	8908892	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/09/2014
	8908890	Siemens Audiologische Technik GmbH (Erlangen, Germany)	12/09/2014
	8908891	Audiodontics LLC (Bethesda, Md.)	12/09/2014
	8908892	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/09/2014
	8909523	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/09/2014

Hearing Apparatus with an Equalization Filter in the Filter Bank System	8908893	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/09/2014
Ear Canal Device Retention Means	8908895	Oticon A/S (Smorum, Denmark)	12/09/2014
Cartridge for an electrode array insertion device	8909349	Cochlear Limited (Macquarie University, NSW, AU)	12/09/2014
Hearing Aid with Improved Compression Methods and systems for representing different spectral components of an audio signal presented to a cochlear implant patient	8913768	GN Resound A/S (Ballerup, Denmark)	12/16/2014
Sound processor apparatus with sound processing integrated circuit that includes an integrated power supply module	8914126	Advanced Bionics AG (Staefa, CH)	12/16/2014
Methods and systems for minimizing an effect of channel interaction in a cochlear implant system	8914127	Advanced Bionics AG (Staefa, CH)	12/16/2014
Tonality-based optimization of sound sensation for a cochlear implant patient	8914125	Advanced Bionics AG (Staefa, CH)	12/16/2014
Transcutaneous bone conduction system	8914124	Advanced Bionics AG (Staefa, CH)	12/16/2014
Hearing system and method for operating a hearing system	8913770	Cochlear Limited (Macquarie University, NSW, AU)	12/16/2014
	8913769	Phonak AG (Stafa, Switzerland)	12/16/2014

Pre-curved electrode array loading tools Methods and systems for automatically determining an implant side associated with a cochlear implant Methods and apparatus for allocating feedback cancellation resources for hearing assistance devices	8915926	Advanced Bionics AG (Staefa, CH)	12/23/2014
Hearing Aid Two Part Hearing Aid with Databus and Method of Communicating between the Parts Hearing Aid- Compatible Apparatus for Wireless Communication Devices	8918182	Advanced Bionics AG (Staefa, CH)	12/23/2014
Integrated Automatic Telephone Switch Method and Device for Frequency Compression	8917891	Starkey Laboratories Inc. (Eden Prairie, Minn.)	12/23/2014
	8917893	ExSilent Research B.V. (Amsterdam)	12/23/2014
	8923542	Widex A/S (Lyngø, Denmark)	12/30/2014
	8923528	Microsoft Corp. (Redmond, Wash)	12/30/2014
	8923539	Starkey Laboratories Inc. (Eden Prairie, Minn.)	12/30/2014
	8923538	Siemens Medical Instruments Pte. Ltd. (Singapore)	12/30/2014