

The Reason to Choose AB

REAL PERFORMANCE and TECHNOLOGY



Studies Show that AB Outperforms Cochlear

AB is the Industry Leader in Technology Innovations

Throughout AB's 16 year history, *we've consistently made the industry's leading technological hearing advancements*, including superior temporal resolution, spectral resolution, dynamic range, and stimulation flexibility designed to be the most like normal hearing.

The newest system on the market isn't necessarily the most advanced. Harmony is still the most advanced cochlear implant system in the world. To hear your best, choose a company that continues to focus on innovations that improve your hearing experience not just the appearance of the processor. With AB, you can count on the most advanced technology to improve your quality of life.

"The Bionic Ear appeared to offer more potential for being upgraded in the future as new and better coding strategies and software became available so that I could conceivably have more and better hearing."—**Michael Chorost, implanted at age 37**



	AB's Harmony System	Cochlear's Nucleus Freedom System	Cochlear's Nucleus 5 System	Why this Matters
Temporal Resolution (Stimulation Rate, pulses per second or pps)	Up to 83,000 pps	Up to 32,000 pps	Up to 31,500 pps	The faster the stimulation rate, the more accurate the timing of sound.
Spectral Resolution (Spectral Bands)	Up to 120	Up to 22	Up to 22	The higher the resolution, the more detailed sound you hear.
Potential Pitch Percepts	460*	161*	161*	The more pitch percepts, the better the opportunity you have to differentiate sounds.
Input Dynamic Range (IDR) (Decibels or dB)	Up to 80 dB	45 dB	45 dB	The wider the range, the more sounds you hear.
Current Sources	Multiple	Single	Single	Multiple current sources allow unique sound processing strategies. AB uses 16. Cochlear has 1.
Simultaneous Stimulation Channels	4	0	0	Simultaneous channel stimulation is required for current steering, which delivers a fuller musical experience.
Sound Coding Strategies	HiRes 120-S, HiRes 120-P HiRes-S, HiRes-P, CIS, MPS	ACE, CIS, SPEAK	ACE, CIS, SPEAK	Every ear is different so the more sound strategies offered, the more options you have for hearing your best.
Listening Modes	BTE Mic, Telecoil, T-Mic	BTE Mic, Telecoil	BTE Mic, Telecoil	Connect to audio devices like normal-hearing people do; enjoy natural, focused listening.
Case Impact Resistance	Up to 6 joules	Up to 1 joule	Up to 2.5 joules	The more joules your cochlear implant can resist, the more impact it can take without affecting performance. From flying soccer balls to falling off a bike, you can have peace of mind knowing that AB implants are built kid tough.
Moisture Resistance	Yes	Yes	Yes	Backed by a three-year warranty, AB's advanced water protection is guaranteed to keep water where it belongs—on the outside of your sound processor.

*Capability representative of software that is not commercially available from any cochlear implant manufacturer

The World's Best Hearing Performance

The Harmony System, only from AB, features the world's most sophisticated technology to bring you clear, high-resolution sound. While other cochlear implants were designed to perform best in easy, unchallenging listening situations, Harmony is designed to help you hear your BEST in everyday settings like busy offices, noisy classrooms, and bustling restaurants—the places where you need to hear well to fully participate. In fact, important comparative studies conducted by leading independent researchers show that AB surpasses Cochlear with better hearing performance in real-world situations.^{1,2}

Offering the same technology as the previous-generation system, Cochlear's Nucleus System 5 delivers no difference in capability from the Nucleus Freedom System. Only AB delivers the best performance by offering the industry's most advanced technology. No other cochlear implant manufacturer offers this technology.

- **HiResolution® (HiRes®) Sound**—the clearest, most accurate sound with five times more resolution than any other cochlear implant system
- **AutoSound™**—has the widest programmable sound range that automatically adapts to your surroundings, just like a normal-hearing ear, so there's no fumbling with dials, switches, or remote controls to continually make adjustments for changing sound environments
- **T-Mic® Microphone**—the only microphone placed naturally at the opening of the ear for highly focused hearing while providing wireless connectivity to cell phones, MP3 players, and more

Make the right choice for you or your child by choosing the cochlear implant system that's big on performance—Harmony, only from AB.



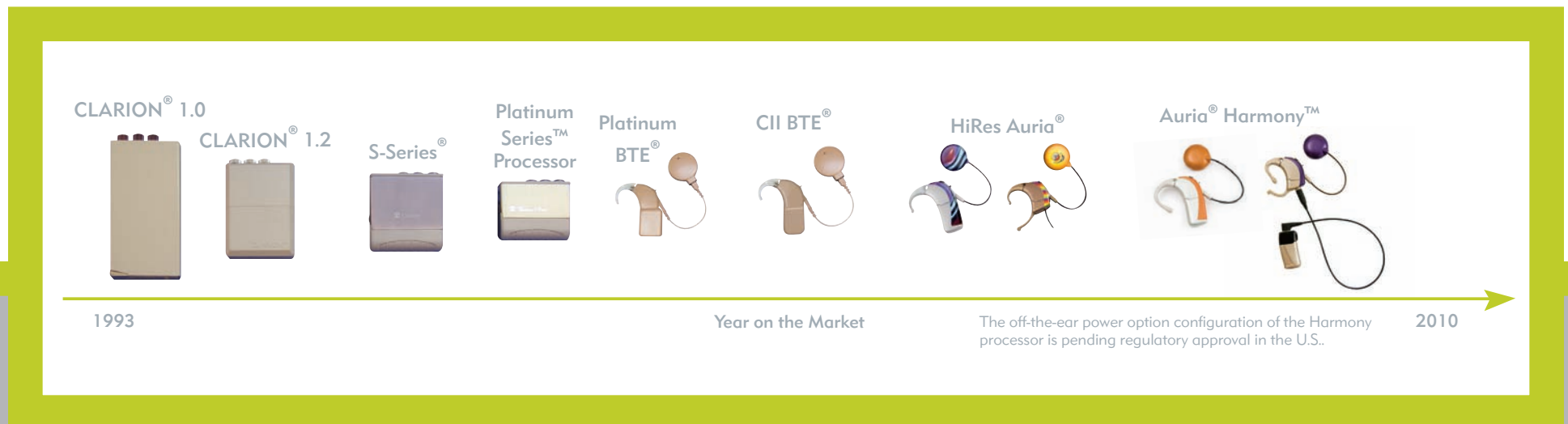
It's What's Inside that Counts

HARMONY...HEAR YOUR BEST

Every cochlear implant manufacturer is working on smaller sound processors, but AB is also focusing on what matters most for your hearing: **PERFORMANCE**. Make the right choice for the right reason—hearing your best.

On the outside, sound processors clearly look different in size, shape, and even color, and their appearance continues to change over time. Since 1993, AB has decreased the weight of its sound processors by 94% and remains committed to developing smaller external components.

Not only do cochlear implant systems differ in how they appear on the outside, their technology inside also differs significantly. And it's the implant technology that drives hearing performance. **Remember to choose a cochlear implant system that offers the world's most superior performance today and upgradeability for your hearing tomorrow—the Harmony® System, only from AB.**



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1. Spahr A, Dorman MF, Loiseau LH. 2007. Performance of Patients Using Different Cochlear Implant Systems: Effects of Input Dynamic Range. *Ear and Hearing* 28 (2): 260–275.
2. Haumann S, Büchner A, Lenarz Th. Does the Input Dynamic Range of Cochlear Implant Processors Influence Speech Perception in Adverse Listening Situations? Oral Presentation at the 10th International Conference on Cochlear Implant and Other Implantable Auditory Technologies, San Diego, CA, April 10–12, 2008.

