

NEPTUNE™

By Advanced Bionics



Compatibility

Implant:	HiRes 90K™ and CII implants
Headpiece:	UHP and AquaMic
Accessories:	Auxiliary audio cable, removable color covers, Listening Check™ ear buds, clothing clip, pouches for harness, armband, headband and lanyard use
Software:	Compatible with SoundWave™ 2.1 and future versions

Power

Batteries:	Operates with 1 AAA\LR03 battery (rechargeable or disposable)
Battery Operating Time:	Lithium AAA\LR03: average 20 hrs. (range: 11–30 hrs.)
	Alkaline AAA\LR03: average 12 hrs. (range: 6–21 hrs.)
	Ni-MH AAA\LR03(rechargeable): average 13 hrs. (range: 8–21 hrs.)

Headpieces

Universal Headpiece (UHP):	Omni-directional electret microphone
Frequency Response:	100 Hz –10 kHz
AquaMic:	Omni-directional <i>submersible IP68</i> microphone (IEC 60529)
Frequency Response:	100 Hz –10 kHz
Magnet Strength:	Adjustable, up to 5 magnets
Cable Lengths:	Lengths range from 15 cm to 107cm (6" to 42")
Cable Colors (UHP):	White, Black, Beige, Brown
Cable Colors (AquaMic):	White, Black
Headpiece Cap Colors (UHP)	Alpine White, Onyx, Tropical Sea, Ocean Blue, Raspberry, Ruby Red, Sky Blue, Lime Green, Princess Pink, Wild Violet, Sand Castle, Brown, Gray, Beige (Metallic), Dark Sienna Metallic
Headpiece Cap Colors (AquaMic)	Alpine White, Onyx, Brown, Gray, Beige

Processing

Audio Sound Capture:	16 bit, 96 dB
Input Dynamic Range: (Instantaneous)	20 dB–80 dB programmable (60 dB default)
Effective Audio Sampling Rate:	17.4 kHz
Frequency Range:	250 Hz–7800 Hz
Automatic Gain Control (AGC): (Enabled, Default)	Cambridge dual loop AGC (AGCII)
Automatic Gain Control: (Disabled)	Functions as linear peak clipping for signal above the maximum specified system limit
Volume Control:	Programmable +/- 100% electrical dynamic range (programmable)
Sensitivity Control:	Programmable: enabled +/- 10 dB with dial, 0 dB if disabled
Stimulation Rate:	136–83,000 pps
Spectral Bands:	1–120 Bands
Supported Strategies:	HiRes-S, HiRes-P, HiRes-S with Fidelity 120™**, HiRes-P with Fidelity 120**, CIS, and MPS
Speech Enhancement Algorithm:	ClearVoice™***
Telemetry:	Forward: 1.1 Mbps: 49 MHz (AM) Backward: 120 Kbps: 10.7 MHz (FM)

AdvancedBionics.com

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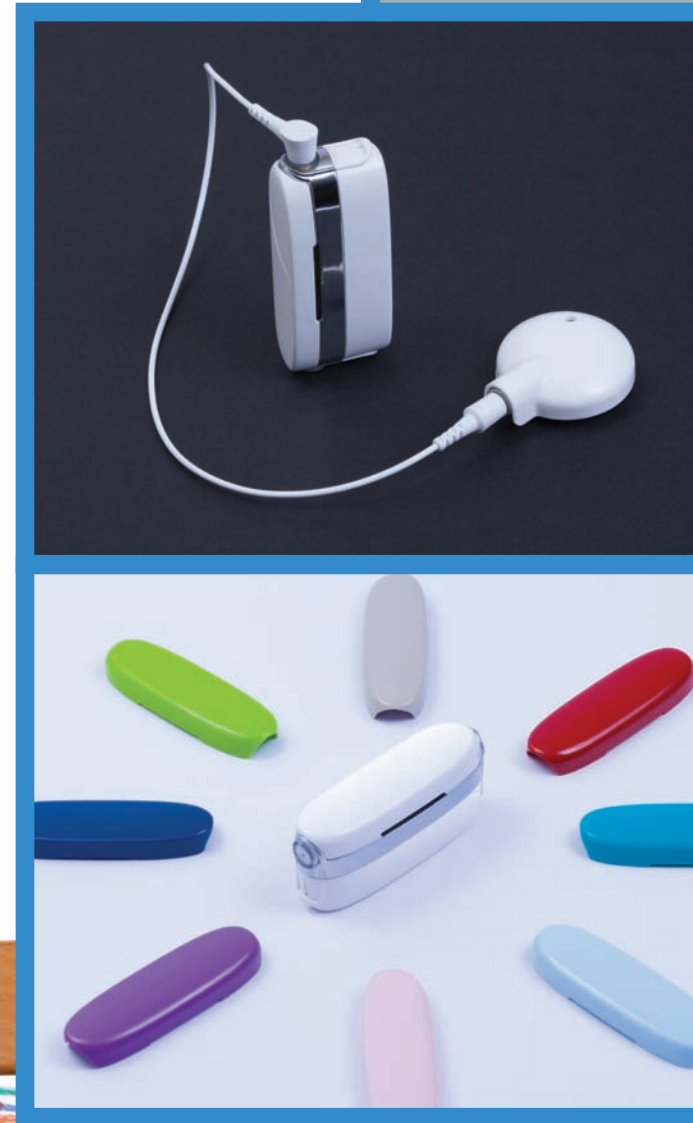
*Pending regulatory approval in the United States. Approved in Canada.

**Not approved for pediatric use in the United States.

***Not approved nor available for sale in the United States.

Technical Specifications

for the Neptune Sound Processor



Mechanical and Electrical Properties

Neptune* Processor Size HxWxD:	26x18x60 mm (1.01x0.72x2.4")
Weight without Battery:	20 g (0.7 oz)
Weight with Battery:	32 g (1.045 oz) (average weight of AAA/LR03 battery 12 g [0.4 oz])
Neptune Connect HxWxD:	17x18x58 mm (0.69x0.70x2.27")
Weight:	11 g (0.4 oz)
Auxiliary Input/Output Port:	3 pin DAI/Euro socket compatible with Phonak Dynamic FM micro receivers 3.5 mm socket with: <ul style="list-style-type: none"> - Stereo input for battery-powered aux devices - Stereo output for listening check with headphones - Mono input with phantom power for auxiliary microphone
Four-Position Program Switch:	3 program slots and 1 microphone test slot
Power Button:	On/Off button located on processor (with built-in LED)
Visual Indicator: (Tri-Color LED on Neptune Processor)	Green, orange, and red. Indicators for battery status, microphone status, program position, IntelliLink™, and error status conditions.
Dual-Color Sync Light: (on Neptune Connect)	Green and red to indicate communication status between Neptune and Neptune Connect
Audible Alarms (Programmable):	Low battery, loss of lock, and IntelliLink
Volume Dial:	Present with controls attached
Sensitivity Dial:	Present with controls attached
Ingress Protection: (per IEC 60529)	Neptune sound processor (without Neptune Connect) and AquaMic IP68 rating
Operating Temperature and Humidity Range:	0°C to 45°C and 95% non-condensing humidity
Storage Temperature and Humidity Range:	-20°C to 55°C and 95% non-condensing humidity
Neptune Band Finish:	Bright Chrome, Satin Chrome
Neptune Color Covers:	Alpine White, Onyx, Princess Pink, Ruby Red, Sky Blue, Ocean Blue, Wild Violet, Lime Green, Tropical Sea, Sand Castle