



COCHLEAR IMPLANT SYSTEM

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In preparation for CE conformity assessment

Nurotron Headquarter — Hangzhou, China



Hear More, Live Better

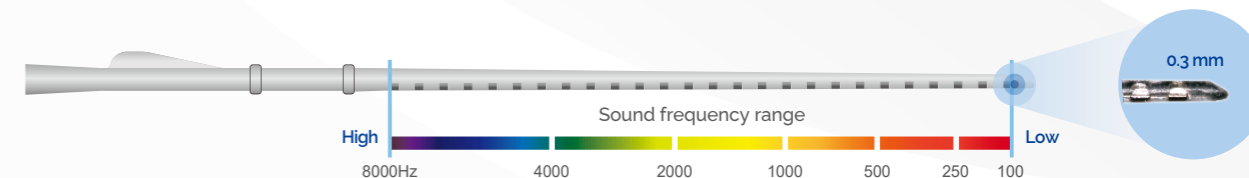


Electrode Arrays

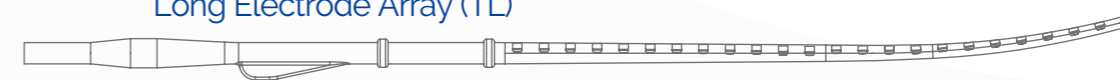
Simplified Insertion, Optimal Performance

Thin Electrode (TS/TM/TL)

24+2 electrodes include 24 active intracochlear electrodes and 2 external electrodes.



Long Electrode Array (TL)



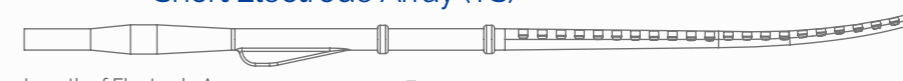
Length of Electrode Array	25.5 mm
Number of Electrodes	24
Electrode Spacing	1.0 mm
Diameter (Basal / Apical)	0.80 mm / 0.30 mm

Medium Electrode Array (TM)



Length of Electrode Array	22.0 mm
Number of Electrodes	24
Electrode Spacing	0.85 mm
Diameter (Basal / Apical)	0.80 mm / 0.30 mm

Short Electrode Array (TS)



Length of Electrode Array	17.5 mm
Number of Electrodes	22
Electrode Spacing	0.70 mm
Diameter (Basal / Apical)	0.80 mm / 0.30 mm

Standard Electrode Array (SD)



Length of Electrode Array	22.0 mm
Number of Electrodes	24
Electrode Spacing	0.85 mm
Diameter (Basal / Apical)	0.92 mm x 0.85 mm / 0.70 mm x 0.55 mm

Please read the IFU carefully and purchase or use them according to the instructions or under the guidance of the doctor.

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Hear More, Live Better

10A

Cochlear Implant

Platinum-Banded Electrodes

Industry-leading 24-channel electrodes, with finer frequency distribution, more detailed sound signal for more natural hearing.

Reliable, Biocompatible, Titanium Implant Casing

Care for patients, to minimize overall thickness and bone excavation.

High-performance Implantable Chip Design

Provide high stimulation rates with ability to support future advances in sound processing.



Soft Electrode Array

Protect delicate cochlear structures, reduce translocation ratio of electrode array from scala tympani to scala vestibule during the insertion.

Removable Magnet For MRI

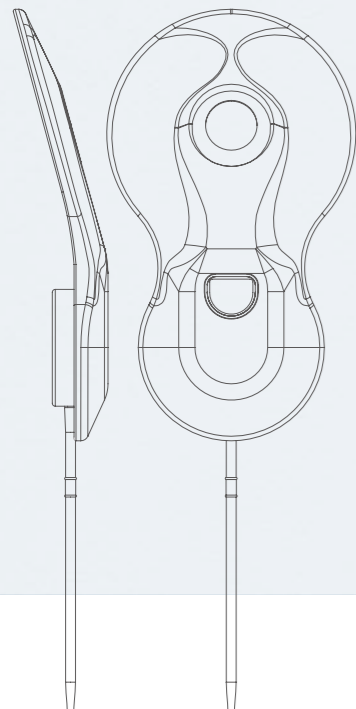
More compatible for different levels of MRI scans, to ensure the best imaging outcome.

Symmetrical Lead Exit

Easily position the implant with the central electrode lead for the surgeon.

Technical Specifications

10A Implant



Implant Specifications

Receiver Stimulator Diameter	20 mm
Coil Thickness	3.4 mm
Weight	≤9 g
Warranty	12 Years

Electrical Characteristics

RF Transmission Frequency	16 MHz
Data Transmission Rate	1.067 Mbps
Maximum Stimulation Rate	20 KHz
Number of Current Sources	4
Pulse Width	4 μS-425 μS
Range of Output Current	0-1900 μA

Electrode Arrays

	Long	Medium	Short	Standard
Length of Electrode Array	25.5 mm	22 mm	17.5 mm	22 mm
Number of Electrodes	24	24	22	24
Electrode Spacing	1.0 mm	0.85 mm	0.70 mm	0.85 mm
Theoretical Exposed Electrode Area-Apical End	0.16 mm ²	0.16 mm ²	0.16 mm ²	0.32mm ²
Theoretical Exposed Electrode Area-Basal End	0.28 mm ²	0.28 mm ²	0.28 mm ²	0.32mm ²

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Venus

Speech Processor



Features

- Compact, portable
- Effective processing of sound signals
- Four programs (MAPs) for different hearing environments
- Intelligent indicator lights
- Tough Dust & Water Resistance
- Neural Response Measurement (NRM)
- Two wearing modes, BTE & Body-worn

Specifications

Signal Processing Unit	≤6 g	43 mm x 32 mm x 14 mm
Transmission Coil	≤13 g	33 mm
Microphones	Omnidirectional	
Dust & Water Resistance	IP44 (with silicone case)	
Warranty	3 Years	

Weight Size

Signal Processing Unit	≤6 g	43 mm x 32 mm x 14 mm
Transmission Coil	≤13 g	33 mm
Microphones	Omnidirectional	
Dust & Water Resistance	IP44 (with silicone case)	
Warranty	3 Years	

Processor

RF Signal Frequency	16 MHz ± 0-3 MHz
RF Signal Amplitude	±10V - ±25V
Effective Working Distance	2-10 mm
Sound Intensity	35 dB SPL - 80 dB SPL
Contact Discharge	Withstand at least 10 discharges at 2kv
Air Discharge	Withstand at least 5 discharges at 8kv
Spectral Bands	24
Coding Strategy	APS, CIS



20A

Cochlear Implant

Upgraded Technology Better Fit, Less Surgical Trauma

With upgraded titanium alloy shell.
15 degree curved, 20A conforms to the skull, fit well.

- **Size decreased 20% comparing to CS-10A.**
Length (except electrodes) - 52mm
Receiving Coil - 30 mm
Bone Excavation-0.35cc



Round Window Approach Nurotron Implant X-ray Image

Titanium Alloy Shell Reliable, Guaranteed

The impact resistance of the new titanium alloy shell is more than 2.5J, meet the requirement of ISO14708-7 international standard, reliable.

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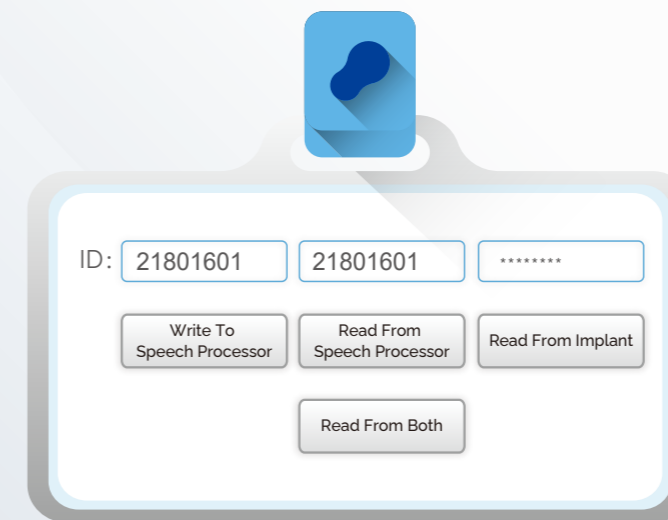
Advanced state of the Art ASIC Chip

Research and develop the SoC chip independently.
Enhance the feature of tonal information collection,
improve the communication and music appreciation.



Implant ID Feature

Implant ID is the serial number of implant,
which can be identified clearly by
NuroSound, matching speech processor
and implant one-to-one.



Hear More, Live Better

ENDURO

Speech Processor



2.4-inch, touchscreen remote,
with app-style user interface,
supports bilateral implants



Technical Specifications

Signal Processing Unit Max. External Dimension	39.0 mm x 25,5 mm x 9,5 mm
Signal Processing Unit Weight	≤ 5g
Microphones	Omnidirectional, dual
Dust & Water Resistance	IP 54
Warranty	3 Years
Audio Input Frequency Range	150 Hz-7.8kHz
Sound Intensity	35dB SPL - 80dB SPL
Coding Strategy	APS, CIS

- Industry-First Tone™ Strategy
- Portable, invisible
- Power-saving coil and algorithm
- Built-in Telecoil
- 2.4-inch touch screen remote with battery life of 50+ hours
- Support bilateral implants
- Neural Response Measurement (NRM)

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VOYAGER

Speech Processor

Colorful Comfortable

GREY
BLACK
BROWN
BEIGE

Color



Signal Processing Unit Weight	≤ 5g
Signal Processing Dimension	41mm x 9.5mm x 25mm
Dust & Water Resistance	IP 54
Frequency Range	150 Hz ~ 7800 Hz
Number of Microphone	2
Type of Microphone	Omnidirectional microphone
Warranty	3 years
Coding Strategy	CIS, APS
Tone Strategy	C-Tone
Noise Reduction	eVoice, Abeam
Input Dynamic Range (Transient)	35 dB SPL ~ 110 dB SPL
Wireless Receiving Function	Wireless reception available, 2.4 GHz bluetooth
Remote Control	Via Voyager Remote Controller and NuroLink APP

Nurolink APP Direct Bluetooth Connection

Compatible with IOS, Android, Harmony system.
Directly connection for both phone call and audio streaming.



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Speech Processing Feature Enhancement Intelligent Scene Recognition

C-TONE

Enhanced Pitch Perception



Before C-Tone



After C-Tone

Intelligent Scene Recognition



Intelligent Positioning

Position the lost speech processor easily.

Noise-Reduction Technique

Abeam (Dual Microphones)
eVoice (Single Microphone)

High-performance DSP Chip

Upgraded DSP chip from 16Bit to 24Bit.
Independent ARM operation, stronger
speech-processing function.

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