# **Technical Specifications**

# Cochlear<sup>™</sup> Nucleus<sup>®</sup> Profile<sup>™</sup> Plus with Slim Modiolar Electrode (Cl632)

3.9 mm

1

60 mm

3.9 mm

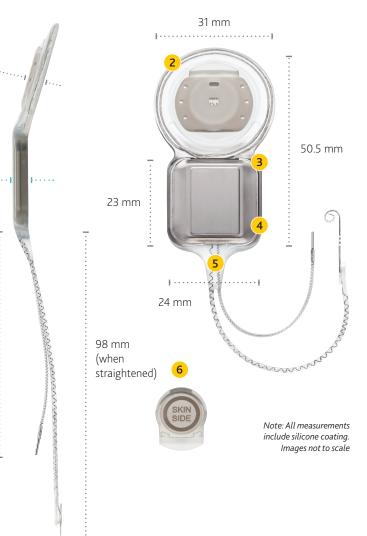
# MRI at 1.5T and 3.0T with Magnet in Place

- 1 Thin implant body that provides a natural and low-profile appearance designed to minimize need for drilling.<sup>1</sup>
- 2 Implant coil enabling telemetry.
- 3 Smooth external geometry to minimize biofilm formation and reduce risk of infection.<sup>2</sup>
- 4 Titanium casing, for impact resistance.
- 5 Symmetrical side-by-side exit leads from main casing, for easier surgery.
- 6 Removable magnet to reduce artifact, if required. Implant is approved for 1.5T and 3.0T with magnet in place.<sup>3</sup>

Circle on magnet indicates the side that should be away from the bone.

Sterilized replacement magnet (P782485) and non-magnetic cassette (P782484) are available from Cochlear.

Weight (without sheath)	9.2 g including electrode array.
Impact Resistance	Resistant against external impact up to 2.5 joules. <sup>4</sup>



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Hear now. And always

# Slim Modiolar Electrode

- 1 Intracochlear electrode with 22 platinum electrode contacts spread over 14 mm active length.
- 2 Distance from electrode tip to most proximal electrode contact 14.4 mm.
- 3 Dimensions at basal end 0.475 x 0.5 mm.
- 4 Dimensions at apical end 0.35 x 0.4 mm.
- 5 Three white insertion depth markers, visible only after sheath is removed. Distance between white markers - 1 mm.
- 6 Distance from electrode tip to most proximal white marker 18.4 mm.
- White alignment marker on electrode diameter
  2.1 mm.
- 8 Position where the sheath can be reloaded onto the electrode.
- 9 Proximal sheath end diameter 0.77 mm.
- 10 Internal sheath length 5.5 mm.
- 11 Sheath stopper diameter 1.5 mm.
- White alignment marker on sheath diameter1.45 mm. When electrode is fully inserted, the markers on the electrode and the sheath are aligned.
- 13 Sheath guide tube (including internal sheath length) length 28.9 mm.
- 14 Sheath handle length 9.5 mm.
- 15 Cochleostomy Sizing Tool length from tip to stopper 2 mm.
- 16 Cochleostomy Sizing Tool tip diameter 0.8 mm.
- 17 Cochleostomy Sizing Tool stopper diameter 1.4 mm.

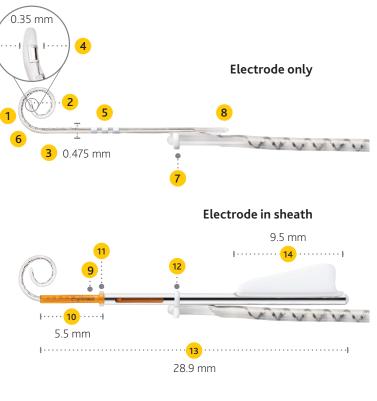
# **Custom Design Microelectric Platform**

#### **Power efficient**

- Stimulus amplitude range 0  $\mu A$  to 1750  $\mu A$  nominal at 370 C.
- Stimulation rates up to 31.5 kHz.

#### Implant ID and type check

• Enables the sound processor to confirm whether it is coupled to the nominated implant.



### **Cochleostomy Sizing Tool**



- The Slim Modiolar Electrode is indicated for round window, extended round window and cochleostomy surgical approaches.
- ✓ A Sterile Silicone Implant Template and Cochleostomy Sizing Tool are provided in the implant packaging.

## Stimulation modes

 Monopolar, bipolar or common ground stimulation modes using biphasic current pulses, designed for flexible programming options.

### **Telemetry capability**

 Includes fully integrated electrophysiology telemetry modes -NRT<sup>®</sup>, AutoNRT<sup>®</sup> ESRT, ABR, CEP and intraoperative NRT.

 Compared to all currently available receiver stimulators available from Cochlear and other cochlear implant manufacturers. Based on published device specification information.

- James G A, Boegli L, Hancock J, Bowersock L, Parker A, Kinney B M, Bacterial Adhesion and Biofilm Formation on Textured Breast Implant Shell Materials, Aesth Plast Surg, October 2018; https://doi.org/10.1007/s00266-018-1234-7
- 3. MRI compatibility may vary by country depending on regulatory approvals in each country. Please check the MRI guidance provided in your country by contacting your local Cochlear representative or clinic before proceeding with an MRI scan.
- 4. EN 45502-2-3 Active implantable medical devices Part 2-3: Particular requirements for cochlear and auditory brainstem implant systems.



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