Cochlear™ Osia® 2 System

The Cochlear™ Osia® System is an active osseointegrated steady-state implant (OSI) hearing solution that uses digital piezoelectric stimulation to send sound through the bone to the inner ear. It is designed to meet the needs of patients with conductive hearing loss, mixed hearing loss and single-sided deafness (SSD).

The Osia System utilizes unique Piezo Power™ transducer technology and a digital link that transfers power and data between the sound processor and implant. Powered by the Ardium™ Smart platform, the slim, off-the-ear sound processor features SmartSound® iQ signal processing and advanced wireless connectivity.

Fitting range
55 dB

The Osia 2 System is indicated for individuals with bone conduction thresholds within the yellow area indicated in the fitting range. For further details, see the candidate selection guide.[1]

55 dB Fitting range

Bone Conduction Threshold

dBHL

Frequency (Hz)
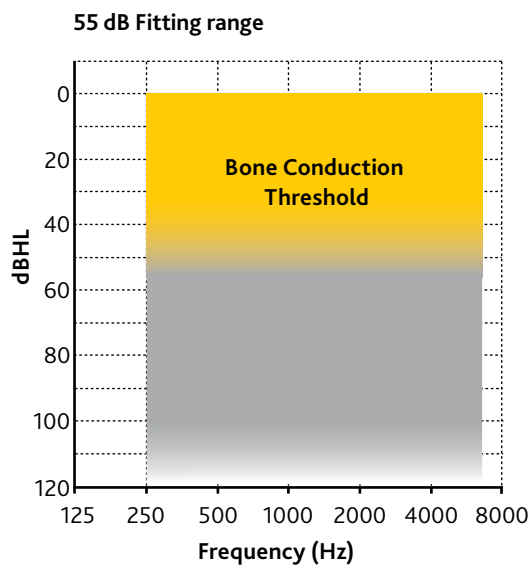
- Bone-conduction thresholds ≤ 55 dB HL averaged across 500, 1000, 2000, and 4000 Hz
- Air-conduction thresholds may extend into this area

Maximum output
force level
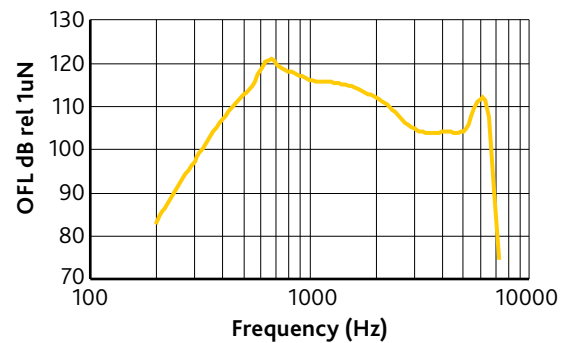
● OFL90 Osia 2 System*

*Measured on skull simulator TU1000 and compensated for skull impedance. Also compensated for actuator position based on: Transmission properties of bone conducted sound: measurements in cadaver heads, Stenfelt S, Goode RL, The Journal of the Acoustical Society of America 2005 Oct;118(4):2373-91.

Hear now. And always

Cochlear®

Ardium™ Smart inside

Piezo Power™ technology

Osia 2 Sound Processor

General
- Fully programmable, head-worn sound processor
- Button to change programs
- Visual indicator (LED)
- Tamper proof battery door
- Dual microphones
- Colors (all included in the Osia 2 Sound Processor kit)

■ **Black**	■ **Sandy Blonde**
■ **Slate Grey**	■ **Silver Grey**
■ **Chocolate Brown**	

Signal Processing
- Ardium™ Smart platform with SmartSound® iQ
- 17 channel sound analysis with Wide-band Dynamic Range Compression and Natural Sound Resolution
- 4 user-defined programs designed for music, outdoor, noisy environments
- Wind noise reduction through WindShield™ protection technology
- Adaptive directional signal processing using dual microphone technology
- Scene Classifier II controlling:
  - Noise Manager II
  - Active Gain
- Active Balanced Directionality
- Position Compensation II
- Control Sync for bilateral synchronization of program change and app functionality
- Dimensional Feedback Manager
- Compatible with FM and digital wireless ALD systems through the Cochlear Wireless Mini Microphone 2+

Water and dust resistance
- Meets IP57*
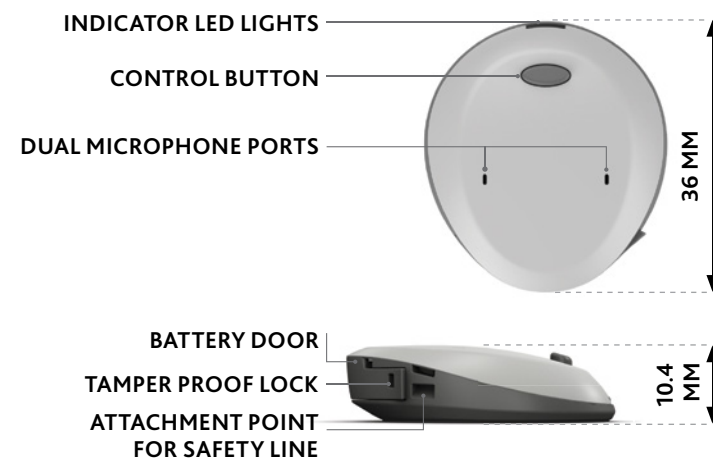- Meets IP68 classification with Aqua+ accessory**

Connectivity
- Bluetooth® Low Energy
- Made for iPhone Hearing Device with support for direct audio and data streaming
- 2.4 GHz Wireless technology that connects to Cochlear Wireless Accessories

The sound processor is compatible with the following Cochlear Wireless Accessories
  - Cochlear Baha Remote Control 2
  - Cochlear Wireless Mini Microphone 2/2+
  - Cochlear Wireless Phone Clip
  - Cochlear Wireless TV Streamer

Cochlear Osia 2 Sound Processor

INDICATOR LED LIGHTS
CONTROL BUTTON
DUAL MICROPHONE PORTS
36 MM

BATTERY DOOR
TAMPER PROOF LOCK
ATTACHMENT POINT FOR SAFETY LINE
10.4 MM

Osia OSI200 Implant
- Piezo Power™ transducer
- MRI Conditional with the implant magnet removed at 1.5T and 3.0T
- Removable coil magnet
- Digital data and power transmission link for robust signal transfer
- Attachment interface for osseointegrated BI300 Implant

BI300 Implant
- Titanium implant with TiOblast® surface to promote fast and strong osseointegration

Osia Fitting Software 2.0
- Dedicated fitting rationales for conductive hearing loss, mixed hearing loss and SSD
- Patient optimized fitting with Osia Fitting Software (2.0 or later)
- Digital Link Calibration to optimize link performance
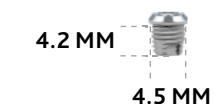
Osia Smart App
- The Osia Smart App is available on compatible iPhone® and Android™ smartphones and Apple Watch®. For compatibility see: www.Cochlear.com/compatibility

[Download on the App Store] [GET IT ON Google Play]

Cochlear Osia OSI200 Implant
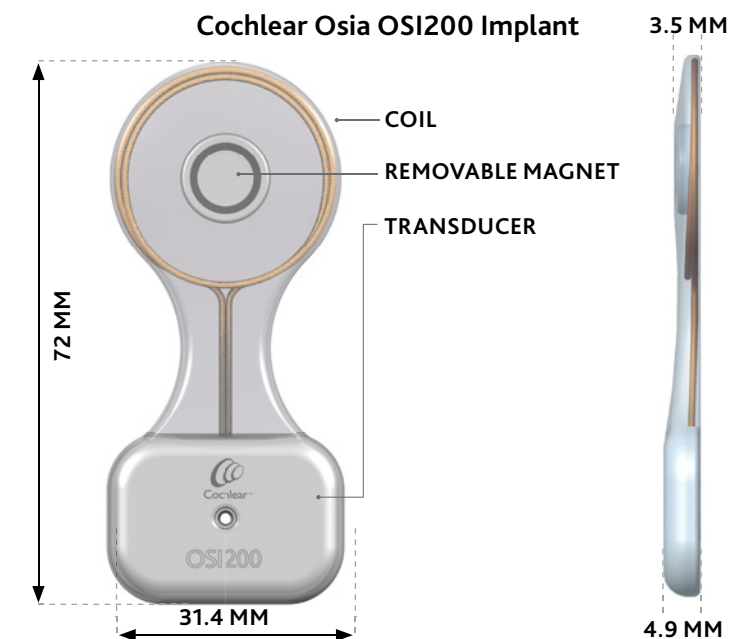
COIL
REMOVABLE MAGNET
TRANSDUCER
72 MM
31.4 MM
3.5 MM
4.9 MM

Cochlear BI300 Implant
4.2 MM
4.5 MM

The Cochlear Osia 2 Sound Processor is compatible with iPhone, iPad, and iPod touch. The Cochlear Osia Smart App is available on App Store and Google Play. For compatiblity information visit www.Cochlear.com/compatiblity.

Technical specifications

Sound output frequency Range (as per IEC 60118-7)	400 Hz – 7 kHz
Peak OFL at 90 dB SPL*	115 dB rel 1μN
Acousto-mechanical gain (at 50dB SPL, 1600 Hz)*	52 dB (rel 1μN /20 μPa)
Equivalent input noise	27 dB SPL
Total Harmonic Distortion and noise	<5% above 600 Hz
Processing delay	6 ms
Digital inductive link operating frequency	5 MHz
Digital inductive link transmitting range	1-10 mm
Battery type	675 (high power zinc air)
Current consumption	12 mA (in silence and coil to coil distance of 6 mm)
Estimated battery lifetime**	22-35 hours
Sound processor weight	9.4 g (with battery and magnet 1)

For more technical details, please refer to Osia 2 System technical specifications.[2]

References

1. D1618123 Osia Candidate Selection Guide
2. D1618127 Osia 2 System Technical Specifications

*Measured on skull simulator TU1000, not compensated for actuator position

**Battery time is depending on hearing loss level, skin thickness and listening environment

This content is meant for professional use. If you are a consumer, please seek advice from your medical practitioner or health professional about treatments for hearing loss. They will be able to advise you on a suitable solution for your hearing loss condition. All products should be used only as directed by your medical practitioner or health professional. Not all products are available in all countries. Please contact your local Cochlear representative.

The Cochlear Osia 2 Sound Processor is compatible with iPhone, iPad and iPod touch. The Cochlear Osia Smart App is pending availability. For compatibility information visit www.Cochlear.com/compatibility.

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