

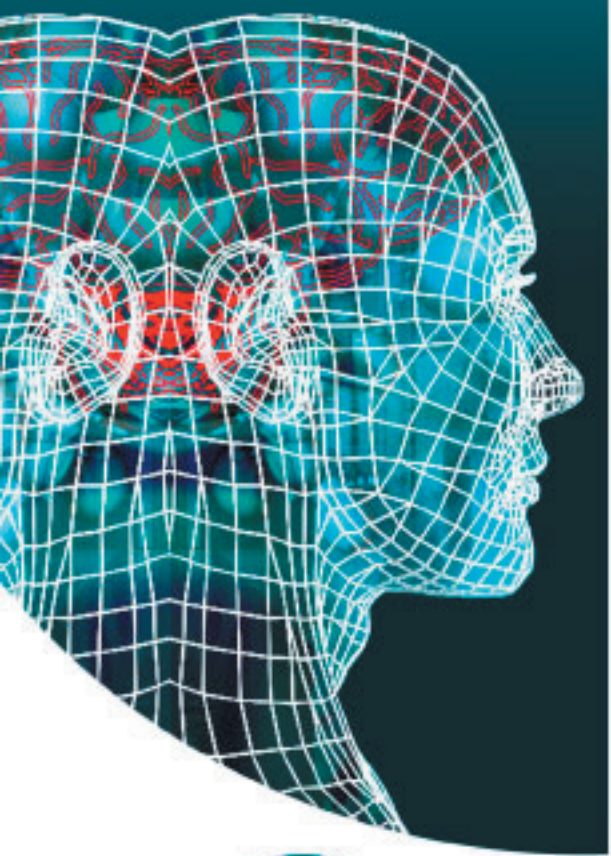


Cochlear  
Implant  
System

**Digisonic® SP**



*An innovation  
in bilateral implantation...*



# Digisonic® SP Binaural

## 24 Channel Digisonic® SP Binaural Implant

- Stimulation in two independent places: 12 electrodes on the ipsilateral side +12 electrodes on the contralateral side
- Combined with Digi SP processor plus a contralateral microphone
- Better hearing in a noisy environment, localization and real stereophony
- More than a bilateral solution... this unique processor enables a perfect synchronizing of the acoustic signals on both ears to offer the binaural hearing
- Simple to use fitting software for a dependent/independent management on both sides
- An alternative to bilateral implantation (2 implants + 2 processors) with a good cost/efficiency ratio
- Indicated for adults only



**Neurelec**  
An MXM Company

*Humanizing Technology*

## References

I-BIN	Digisonic® SP Binaural Implant
E-SP-TX7	Digi SP processor
E-CROS	Contralateral microphone (Ref : OA-CROS) and the lead (Ref : OA-CROSL)

The three products listed above must all be ordered in case of new implantations.

## General features

- Receiver dimensions: 4,9 mm edge - 5,75 mm centre - 30,2 mm diameter.
- Receiver materials: Titanium base - Ceramic cover  $Al_2O_3$  - Silicone envelope.
- Silicone arrays with electrodes in platinum-iridium.
- MRI compatible 1,5 Tesla - Warranty: 10 years.

## Surgical features

- Fixation with two self-tapping bone screws, pre-positioned on the plastic tray.
- Surgical positioning of the contralateral electrode array by tunneling under the galea.
- Insertion length (identical to the Digisonic® SP electrode array): 25 mm.
- Advised size of cochleostomy: 1,0 mm.
- Surgery kit needed: 1 screwdriver, 1 fork, 1 processor dummy, 1 tunneling tool.

## Electrode array features

- 2 x 12 active electrodes.
- Active length of each electrode array: 18,5 mm.
- Base diameter (silicone ring): 0,9 mm.
- Apex diameter: 0,5 mm.
- 2 ground electrodes (one on each electrode array).

## Stimulation features

- 2 x 12 channels. Current or voltage stimulation.
- Monopolar/common-ground stimulation through biphasic pulses.
- Capacitive coupling on each of the 24 electrodes: averaged residual current less than 100 nA.
- Selectable pulse amplitude.
- Pulse duration: from 1 to 120  $\mu$ s (resolution = 0,5  $\mu$ s).
- Stimulation frequency: 24 000 pps (pulses per second).
- Electrode impedance less than 2 k $\Omega$ .

## Objective measures

- Programming using DigiMap SP USB system (for management of independent stimulation on both ears).
- Digistim® SP USB diagnosis system (compatible with Windows 98 SE, ME, 2000, XP and Vista) allowing the realization of Electrical Auditory Brainstem Responses (EABR), Stapedius Reflex, Psychoacoustic Tests (such as gap test, etc.).
- Electrode impedance measurement by telemetry.

## Contents of Digisonic® SP Binaural

- 1 Digisonic® SP Binaural implant - 1 Silicone dummy implant
- 2 Screws - 1 Owner card - 1 Instruction for use - 1 Implantation form
- 1 Explantation form - 1 Warranty certificate.

## - GERMAN OFFICE

Neurelec GmbH - Lebacher Str. 4 - 66113 Saarbrücken - TEL.: +49 681 99 63 362 - FAX: +49 681 99 63 111 - E-mail: neurelecGmbH@neurelec.com

## - MIDDLE EAST OFFICE

Neurelec Middle East - 3 Elmerghany St. From Zidan St. Ma'adi 3, Cairo, EGYPT - TEL.: +20107707068 - E-mail: middleEast@neurelec.com



Binaural Device



2x12 active electrodes  
on 18,5 mm

Digisonic® SP Binaural  
fitting

Neurelec  
An MXM Company

2720 Ch. St. Bernard 06224 VALLAURIS CEDEX  
FRANCE

www.neurelec.com - contact@neurelec.com  
TEL.: +33 (0)4 93 95 18 18 - FAX: +33 (0)4 93 95 38 01