

Cellion™ primax

Technical Data

7px

5px



S-Receiver

- 56 dB / 119 dB SPL (ear simulator)
- 45 dB / 108 dB SPL (2 ccm coupler)

M-Receiver

- 70 dB / 129 dB SPL (ear simulator)
- 60 dB / 119 dB SPL (2 ccm coupler)

P-Receiver

- 80 dB / 134 dB SPL (ear simulator)
- 70 dB / 124 dB SPL (2 ccm coupler)



HP-Receiver

- 82 dB / 138 dB SPL (ear simulator)
- 75 dB / 130 dB SPL (2 ccm coupler)



Hearing
Systems

SIEMENS

Cellion primax | Technical Data

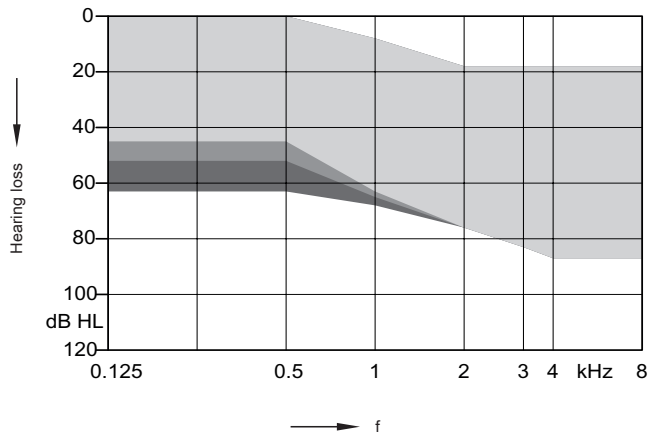
| Type | S-Receiver | | M-Receiver | |
|---|---|-----------------------------|---|-----------------------------|
| |  | |  | |
| | 2 ccm coupler | Ear simulator | 2 ccm coupler | Ear simulator |
| Output sound pressure level | | | | |
| at 1.6 kHz | – | 109 dB SPL | – | 122 dB SPL |
| Peak | 108 dB SPL | 119 dB SPL | 119 dB SPL | 129 dB SPL |
| HFA-OSPL 90 | 102 dB SPL | – | 114 dB SPL | – |
| Gain | | | | |
| Full on gain (FOG) at 1.6 kHz | – | 43 dB | – | 55 dB |
| Full on gain (Peak) | 45 dB | 56 dB | 60 dB | 70 dB |
| HFA-FOG | 37 dB | – | 50 dB | – |
| Reference test gain | 25 dB | 34 dB | 37 dB | 47 dB |
| Frequency, noise and directivity | | | | |
| Frequency range 7px 5px | 100-10000 Hz 100-8200 Hz | 100-10500 Hz 100-8300 Hz | 100-8800 Hz 100-8200 Hz | 100-10000 Hz 100-8300 Hz |
| Equivalent input noise | 18 dB SPL | 22 dB SPL | 19 dB SPL | 23 dB SPL |
| Total harmonic distortion at 500 / 800 / 1600 Hz | 1 / 1 / 1 % | 1 / 1 / 2 % | 1 / 1 / 2 % | 1 / 3 / 3 % |
| Tinnitus therapy broadband | 65 dB | – | 70 dB | – |
| AI-DI | 3.8 dB | | 3.8 dB | |
| Inductive coil sensitivity | | | | |
| MASL (1 mA/m) at 1.6 kHz | – | 75 dB SPL | – | 85 dB SPL |
| HFA MASL (1 mA/m) | 68 dB SPL | – | 80 dB SPL | – |
| HFA SPLITS (left/right) | 84 / 84 dB SPL | – | 96 / 96 dB SPL | – |
| RSETS (left/right) | -1 / -1 dB SPL | – | -1 / -1 dB SPL | – |
| Battery | | | | |
| Battery voltage | 1.25 V | | 1.25 V | |
| Battery current drain | 0.9 mA | | 1.0 mA | |
| Battery life (rechargeable) | up to 28 hr | | up to 27 hr | |
| IRIL IEC 118-13:2011 (bystander) | | | | |
| 800-960 MHz | -39 dB SPL | | -39 dB SPL | |
| 1400-2000 MHz | <-43 dB SPL | | <-43 dB SPL | |
| ANSI C63.19 | M4 / T4 | | M4 / T4 | |

Cellion primax | Technical Data

| Type | P-Receiver | | HP-Receiver | |
|---|---|----------------------------|---|----------------------------|
| |  | |  | |
| | 2 ccm coupler | Ear simulator | 2 ccm coupler | Ear simulator |
| Output sound pressure level | | | | |
| at 1.6 kHz | – | 128 dB SPL | – | 137 dB SPL |
| Peak | 124 dB SPL | 134 dB SPL | 130 dB SPL | 138 dB SPL |
| HFA-OSPL 90 | 120 dB SPL | – | 124 dB SPL | – |
| Gain | | | | |
| Full on gain (FOG) at 1.6 kHz | – | 70 dB | – | 82 dB |
| Full on gain (Peak) | 70 dB | 80 dB | 75 dB | 82 dB |
| HFA-FOG | 63 dB | – | 68 dB | – |
| Reference test gain | 43 dB | 53 dB | 48 dB | 62 dB |
| Frequency, noise and directivity | | | | |
| Frequency range 7px 5px | 100-7800 Hz 100-7800 Hz | 100-8100 Hz 100-7800 Hz | 100-7500 Hz 100-7400 Hz | 250-5200 Hz 250-5200 Hz |
| Equivalent input noise | 18 dB SPL | 21 dB SPL | 18 dB SPL | 12 dB SPL |
| Total harmonic distortion at 500 / 800 / 1600 Hz | 2 / 2 / 1 % | 3 / 3 / 2 % | 1 / 2 / 1 % | 1 / 1 / 1 % |
| Tinnitus therapy broadband | 75 dB | – | 85 dB | – |
| AI-DI | 3.8 dB | | 3.8 dB | |
| Inductive coil sensitivity | | | | |
| MASL (1 mA/m) at 1.6 kHz | – | 100 dB SPL | – | 114 dB SPL |
| HFA MASL (1 mA/m) | 91 dB SPL | – | 99 dB SPL | – |
| HFA SPLITS (left/right) | 102 / 102 dB SPL | – | 107 / 107 dB SPL | – |
| RSETS (left/right) | -1 / -1 dB SPL | – | -1 / -1 dB SPL | – |
| Battery | | | | |
| Battery voltage | 1.25 V | | 1.25 V | |
| Battery current drain | 1.0 mA | | 1.1 mA | |
| Battery life (rechargeable) | up to 27 hr | | up to 26 hr | |
| IRIL IEC 118-13:2011 (bystander) | | | | |
| 800-960 MHz | -39 dB SPL | | -39 dB SPL | |
| 1400-2000 MHz | <-43 dB SPL | | <-43 dB SPL | |
| ANSI C63.19 | M4 / T4 | | M4 / T4 | |

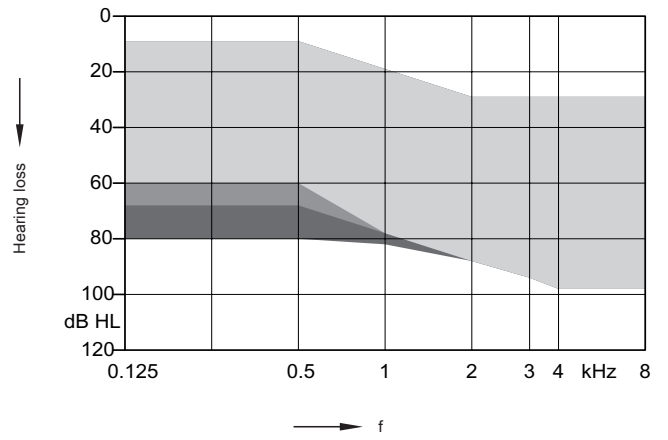
Cellion primax | Fitting Range

S-Receiver



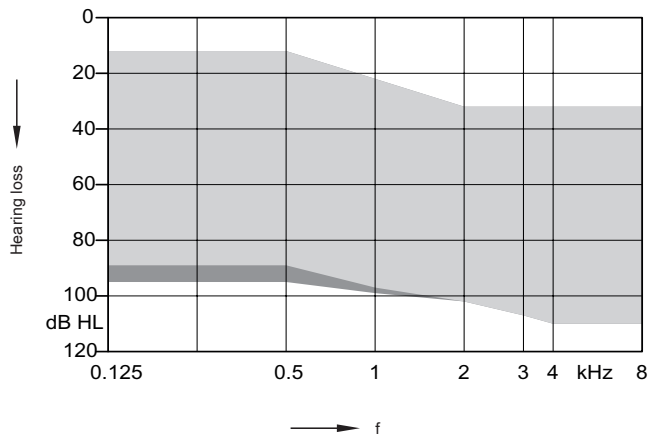
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

M-Receiver



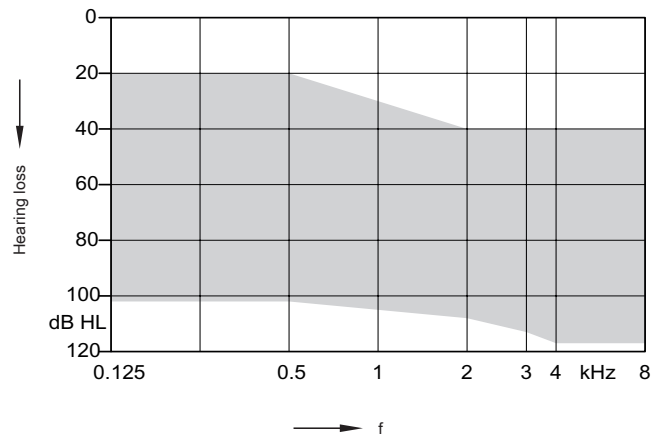
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

P-Receiver



Double Click Domes
 + Click Mold (no vent)

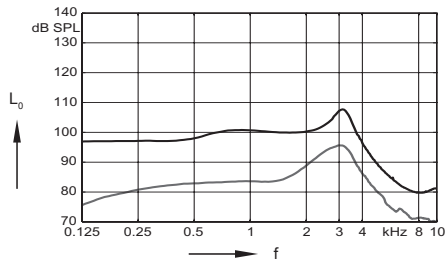
HP-Receiver



Custom Shell (no vent)

S-Receiver (Closed Click Dome) | Basic Data

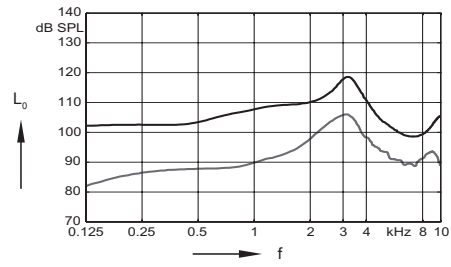
2 ccm coupler



Output sound pressure level
($L_1 = 90$ dB)

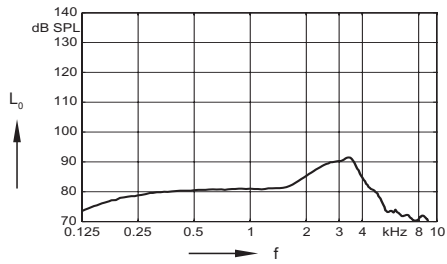
Full on gain
($L_1 = 50$ dB)

Ear simulator

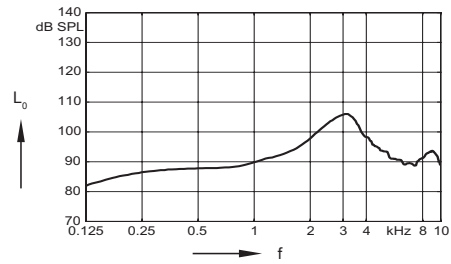


Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)

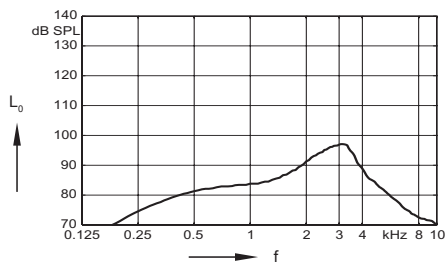


Frequency response
($L_1 = 60$ dB)

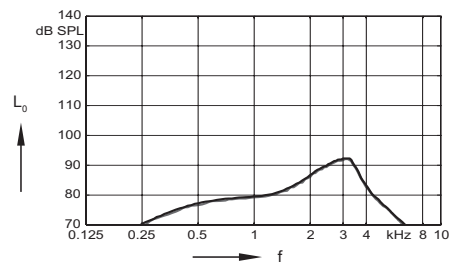


Basic acoustic response
($L_1 = 60$ dB)

Inductive response



Inductive response
($H = 10$ mA/m)

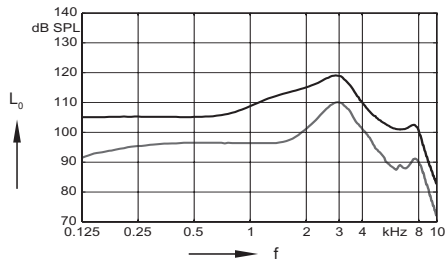


SPLITs curve left
($H = 31.6$ mA/m)

SPLITs curve right
($H = 31.6$ mA/m)

M-Receiver (Closed Click Dome) | Basic Data

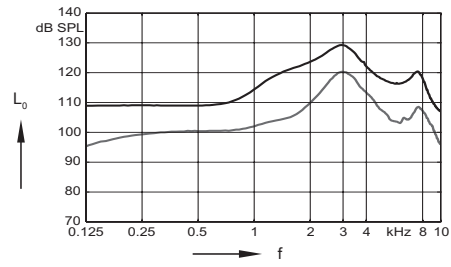
2 ccm coupler



Output sound pressure level ($L_1 = 90$ dB)

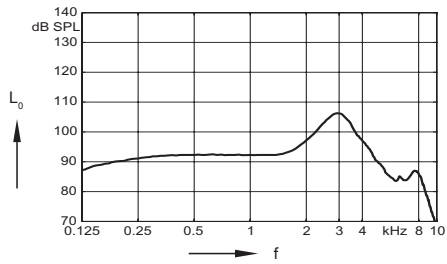
Full on gain ($L_1 = 50$ dB)

Ear simulator

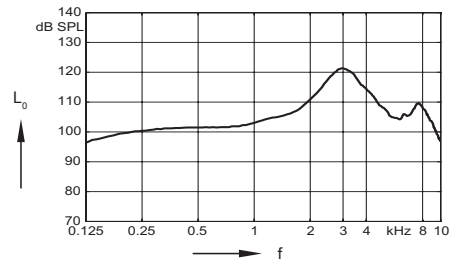


Output sound pressure level ($L_1 = 90$ dB)

Full on gain ($L_1 = 50$ dB)

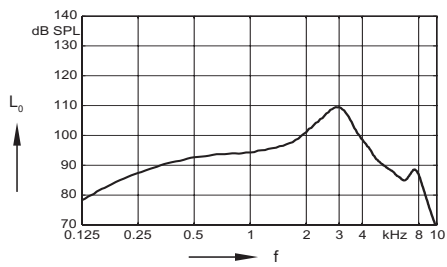


Frequency response ($L_1 = 60$ dB)

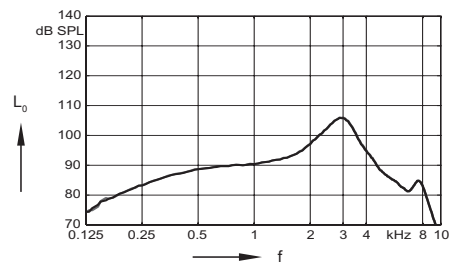


Basic acoustic response ($L_1 = 60$ dB)

Inductive response



Inductive response ($H = 10$ mA/m)

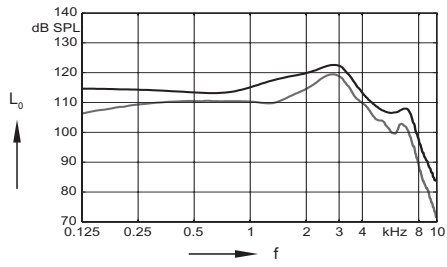


SPLITS curve left ($H = 31.6$ mA/m)

SPLITS curve right ($H = 31.6$ mA/m)

P-Receiver (Click mold) | Basic Data

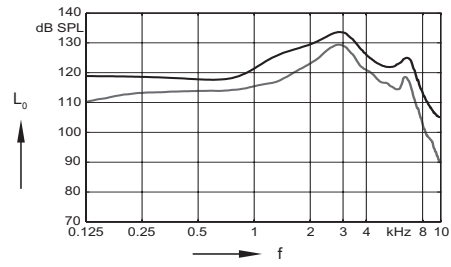
2 ccm coupler



Output sound pressure level
($L_1 = 90$ dB)

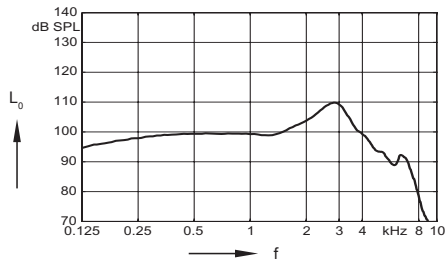
Full on gain
($L_1 = 50$ dB)

Ear simulator

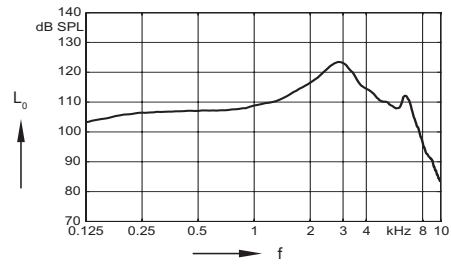


Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)

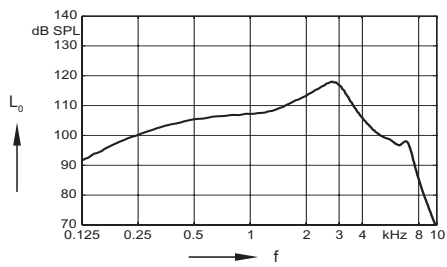


Frequency response
($L_1 = 60$ dB)

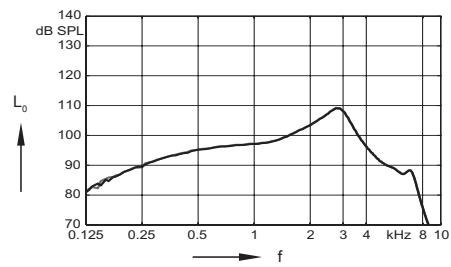


Basic acoustic response
($L_1 = 60$ dB)

Inductive response



Inductive response
($H = 10$ mA/m)

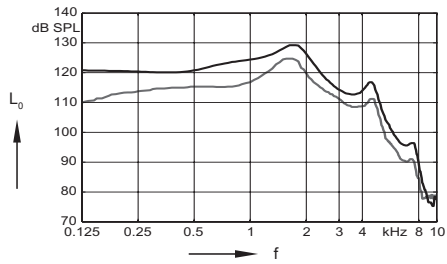


SPLITs curve left
($H = 31.6$ mA/m)

SPLITs curve right
($H = 31.6$ mA/m)

HP-Receiver (Custom Shell) | Basic Data

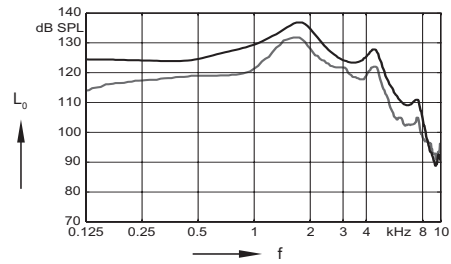
2 ccm coupler



Output sound pressure level ($L_i = 90$ dB)

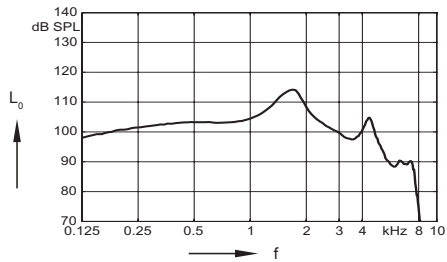
Full on gain ($L_i = 50$ dB)

Ear simulator

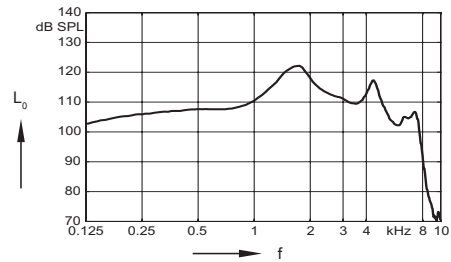


Output sound pressure level ($L_i = 90$ dB)

Full on gain ($L_i = 50$ dB)

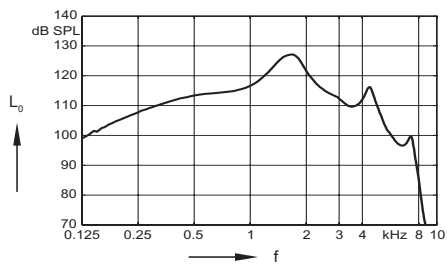


Frequency response ($L_i = 60$ dB)

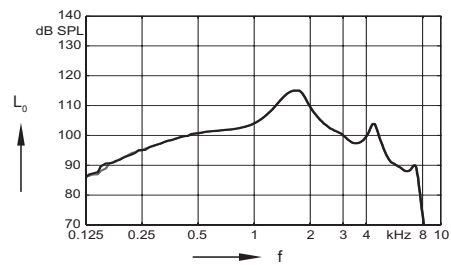


Basic acoustic response ($L_i = 60$ dB)

Inductive response



Inductive response ($H = 10$ mA/m)



SPLITS curve left ($H = 31.6$ mA/m)

SPLITS curve right ($H = 31.6$ mA/m)

Cellion primax | Features and Accessories

| | 7px | 5px |
|---|-----------|-----------|
| Audiology | | |
| Signal processing (channels) / Gain/MPO (handles) | 48 / 20 | 32 / 16 |
| Hearing programs | 6 | 6 |
| SpeechMaster | ● | ● |
| HD Music (presets) | 3 | 1 |
| TwinPhone¹⁾ | ● | ● |
| EchoShield | ● | — |
| Wireless CROS/BICROS²⁾ | ● | ● |
| Directionality (channels) | 48 | 32 |
| Narrow Directionality¹⁾ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ |
| Directional microphone | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ |
| Spatial SpeechFocus¹⁾ | ■ ■ ■ ■ ■ | — |
| SpeechFocus | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ |
| TruEar™ | ■ ■ ■ ■ ■ | ■ ■ ■ ■ ■ |
| Frequency compression | ● | ● |
| Extended bandwidth | ● | — |
| Feedback cancellation | ● | ● |
| eWindScreen binaural¹⁾ | ● | ● |
| eWindScreen™ (steps) | 3 | 3 |
| Noise Reduction (channels / steps) | 48 / 5 | 32 / 5 |
| Speech and noise management (steps) | 7 | 5 |
| SoundSmoothing™ (steps) | 3 | 3 |
| Directional speech enhancement (steps) | 3 | 1 |
| Adaptive streaming volume³⁾ | ● | — |
| SoundBrilliance™ ³⁾ | ● | ● |
| Sound equalizer (classes) | 6 | 3 |
| Spatial Configurator¹⁾ | ● | ● |
| Span⁴⁾ | ● | ● |
| Direction⁵⁾ | ● | ● |
| SoundBalance | ● | ● |
| Fitting | | |
| Insitugram | ● | ● |
| Learning (classes) / Data logging | 6 / ● | 3 / ● |
| Acclimatization manager | ● | ● |
| Tinnitus | | |
| Tinnitus therapy | | |
| Static therapy signal (handles / presets) | 20 / 5 | 16 / 5 |
| Ocean Waves therapy signal (presets) | 4 | 4 |

Cellion primax | Features and Accessories

| | 7px / 5px |
|---------------------------------------|-----------|
| Style Specific Features | |
| Ingress Protection Rating | IP68 |
| Telecoil | ● |
| AutoPhone® | ● |
| Charging contacts | — |
| Battery size | — |
| Battery door on/off function | — |
| Nanocoated housing | ● |
| e2e wireless® 3.0 | ● |
| Audio streaming with easyTek | ● |
| User controls coupling via e2e | ● |
| Wireless programming via ConnexxLink® | ● |
| Instrument configurations | |
| Flat cover | — |
| Rotary volume control | — |
| Push button | ● |
| Rocker switch | — |
| Color conversion kit | ○ |
| Battery door – direct audio input | — |
| Battery door – child lock | — |
| Programming Accessories | |
| ConnexxLink | ● |
| Programming adapter | ● |
| Accessories | |
| miniPocket | ○ |
| CROS Pure | ○ |
| Inductive Charger | mandatory |
| eCharger™ | — |
| easyPocket™ | ○ |
| easyTek™ | ○ |
| TV Transmitter (req. easyTek) | ○ |
| Transmitter (req. easyTek) | ○ |
| VoiceLink™ (req. easyTek) | ○ |
| App | |
| easyTek App (req. easyTek) | ○ |
| touchControl™ App | ○ |

● available ■■■■■ highest feature performance ○ optional — not available

¹⁾ req. bilateral fitting and e2e 3.0

²⁾ req. CROS Pure accessory

³⁾ streaming only, req. easyTek

⁴⁾ req. easyTek & easyTek App, touchControl App or Rocker switch

⁵⁾ req. easyTek & easyTek App or touchControl App

Abbreviations and Standards

Abbreviations

The following abbreviations are used in this datasheet:

| | |
|--------|--|
| OSPL | Output Sound Pressure Level |
| HFA | High Frequency Average |
| FOG | Full-On Gain |
| MASL | Magneto Acoustical Sensitivity Level |
| SPLITS | Coupler SPL for an Inductive Telephone Simulator |
| RSETS | Relative Equivalent Telephone Sensitivity |
| AI-DI | Articulation Index - Directivity Index |
| IRIL | Input Related Interference Level |
| RTF | Reference Test Frequency |

Standards

- ▶ All measurements with the 2 ccm coupler were performed according to ANSI S3.22-2009 and IEC 60118-7:2005 if applicable.
- ▶ All measurements with an ear simulator were performed according to IEC 118-0/A1 and to DIN 45605 (frequency range) if applicable.
- ▶ Tinnitus therapy measurement conditions: all tinnitus single frequency sliders in max position, master volume slider in default position (0 dB) and local volume control in default position.
- ▶ The following ear pieces were used:
 - S-Receiver Unit and M-Receiver Unit: Closed Click Dome
 - P-Receiver Unit: Click Mold
 - HP-Receiver Unit: Custom Shell
- ▶ Extended frequency range up to 12 kHz for 7px devices only.

Note for power cell

- ▶ Operating times may vary due to hearing loss, use of binaural features and accessories, age of power cell as well as the sound environment.

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases and are subject to change without prior notice. The required features should therefore be specified in each individual case at the time of conclusion of the respective contract.

Legal Manufacturer

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9/16 1.0 SI/17054-16



Warning

Choking hazard posed by small parts.

- ▶ This instrument is not intended for the fitting of infants, children under 3 years and persons of mental incapacity.



Warning

Instrument has an output sound pressure level of 132 dB SPL or more.

- Risk of impairing the residual hearing of the user.
- ▶ Take special care when fitting this instrument.