

Pure[®] 13 Nx

Technical Data



7Nx

5Nx

3Nx



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)

Pure 13 Nx | Technical Data

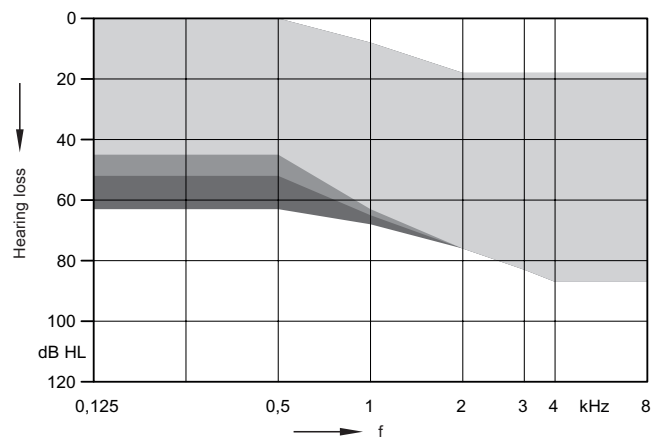
Type	S-Receiver		M-Receiver	
				
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	–	109 dB SPL	–	123 dB SPL
Peak	108 dB SPL	119 dB SPL	119 dB SPL	129 dB SPL
HFA-OSPL 90	101 dB SPL	–	113 dB SPL	–
Gain				
Full on gain (FOG) at 1.6 kHz	–	43 dB	–	55 dB
Full on gain (Peak)	45 dB	56 dB	60 dB	70 dB
HFA-FOG	37 dB	–	50 dB	–
Reference test gain	24 dB	34 dB	36 dB	48 dB
Frequency, noise and directivity				
Frequency range 7Nx 5Nx / 3Nx	100 - 10000 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz	100 - 9400 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz
Equivalent input noise	19 dB SPL	20 dB SPL	19 dB SPL	23 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 1 / 1 / 1 %	1 / 1 / 2 / – %	1 / 2 / 1 / 1 %	2 / 3 / 2 / – %
Tinnitus therapy broadband	65 dB SPL	–	70 dB SPL	–
AI-DI	4.0 dB		4.0 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	–	–	–	–
HFA MASL (1 mA/m)	–	–	–	–
HFA SPLITS (left/right)	–	–	–	–
RSETS (left/right)	–	–	–	–
HFA SPLIV	–	–	–	–
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.2 mA	–	1.4 mA	–
Battery life (cell zinc air)	~126 h		~121 h	
Battery life (rechargeable)	–		–	
IRIL IEC 60118-13:2016 Ed. 4.0				
700-960 MHz (rating)	user		user	
1400-2000 MHz (rating)	user		user	
2000-2700 MHz (rating)	user		user	
ANSI C63.19-2011				
800-950 MHz (rating)	M4		M4	
1600-2500 MHz (rating)	M4		M4	

Pure 13 Nx | 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	119 dB SPL	–	123 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	42 dB	53 dB	46 dB	62 dB
Frequency, noise and directivity				
Frequency range 7Nx 5Nx / 3Nx	100 - 7500 Hz 100 - 7500 Hz	100 - 8100 Hz 100 - 8100 Hz	100 - 7300 Hz 100 - 7300 Hz	250 - 6100 Hz 250 - 6100 Hz
Equivalent input noise	18 dB SPL	21 dB SPL	16 dB SPL	12 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 2 / 1 / 1 %	3 / 4 / 2 / – %	1 / 2 / 1 / 1 %	2 / 2 / 1 / – %
Tinnitus therapy broadband	75 dB SPL	–	85 dB SPL	–
AI-DI	4.0 dB		4.0 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	–	–	–	–
HFA MASL (1 mA/m)	–	–	–	–
HFA SPLITS (left/right)	–	–	–	–
RSETS (left/right)	–	–	–	–
HFA SPLIV	–	–	–	–
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.3 mA	1.3 mA	1.3 mA	1.3 mA
Battery life (cell zinc air)	~121 h		~121 h	
Battery life (rechargeable)	–		–	
IRIL IEC 60118-13:2016 Ed. 4.0				
700-960 MHz (rating)	user		user	
1400-2000 MHz (rating)	user		user	
2000-2700 MHz (rating)	user		user	
ANSI C63.19-2011				
800-950 MHz (rating)	M4		M4	
1600-2500 MHz (rating)	M4		M4	

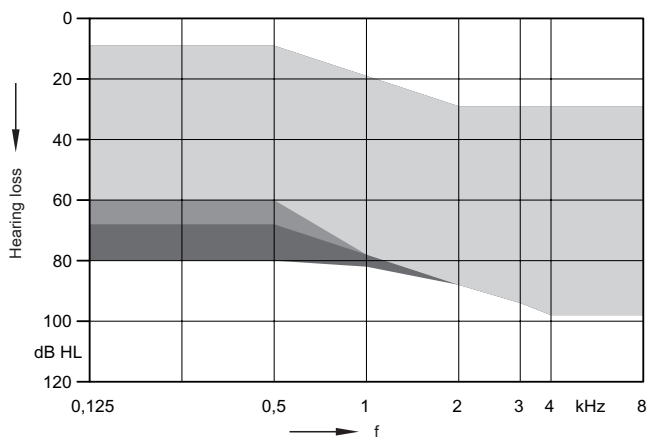
Pure 13 Nx | Fitting Range

S-Receiver



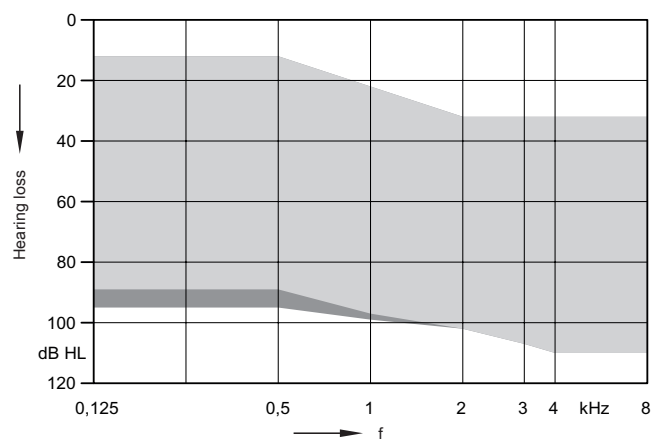
- Open Click Domes
- + Double Click Domes
- + Click Mold (no vent)

M-Receiver



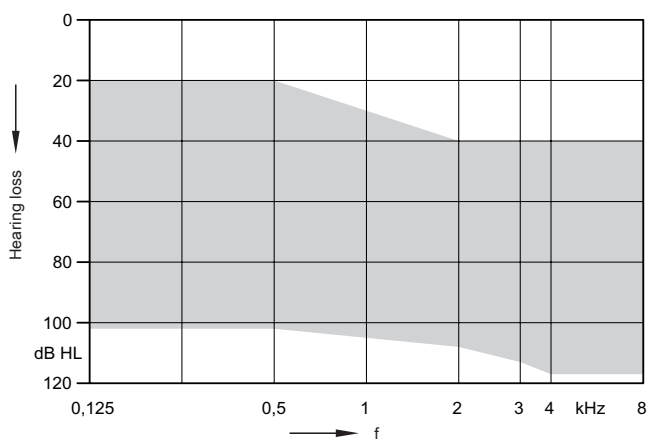
- Open Click Domes
- + Double Click Domes
- + Click Mold (no vent)

P-Receiver



- Double Click Domes
- + Click Mold (no vent)

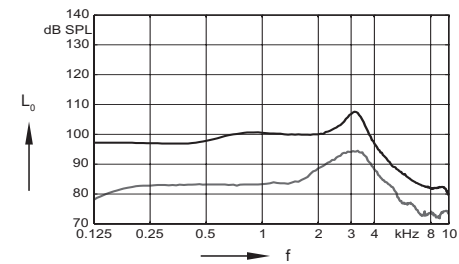
HP-Receiver



- Custom Shell (no vent)

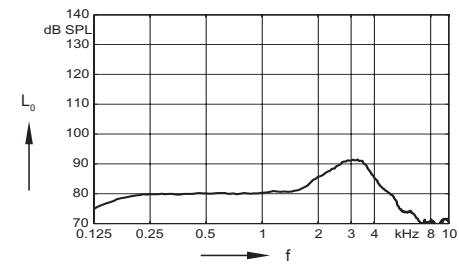
S-Receiver (Closed Click Dome) | Basic Data

2 ccm coupler



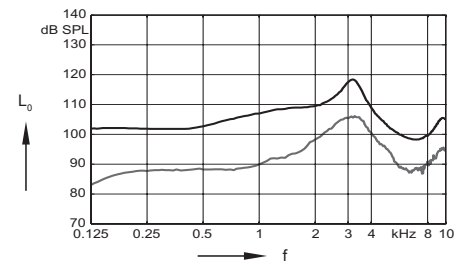
Output sound pressure level
($L_i = 90$ dB)

Full on gain
($L_i = 50$ dB)



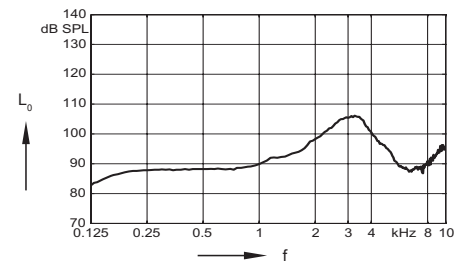
Frequency response
($L_i = 60$ dB)

Ear simulator



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

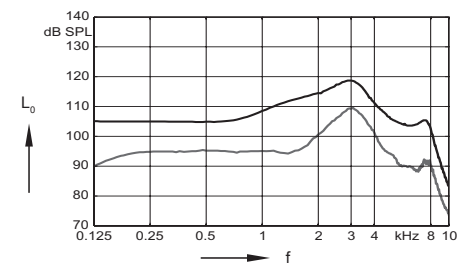
Full on gain
($L_i = 50$ dB)



Basic acoustic response
($L_i = 60$ dB)

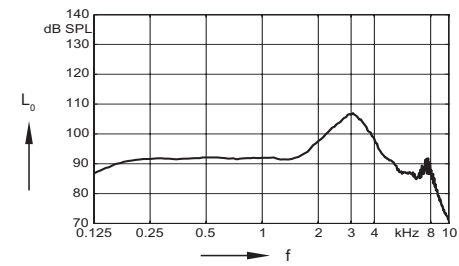
M-Receiver (Closed Click Dome) | Basic Data

2 ccm coupler



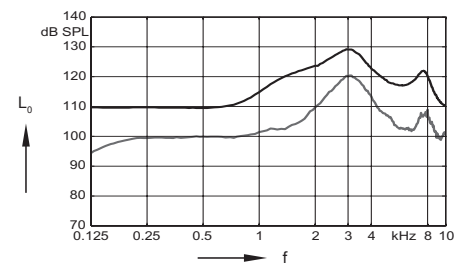
Output sound pressure level
(L_i = 90 dB)

Full on gain
(L_i = 50 dB)



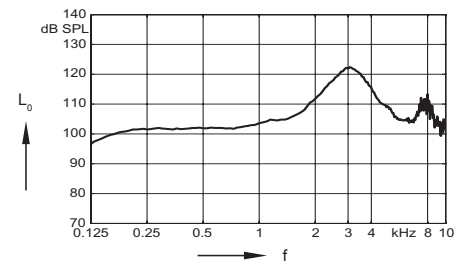
Frequency response
(L_i = 60 dB)

Ear simulator



Output sound pressure level
(L_i = 90 dB)

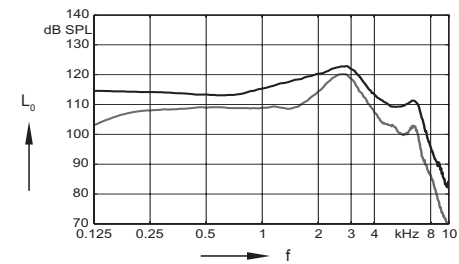
Full on gain
(L_i = 50 dB)



Basic acoustic response
(L_i = 60 dB)

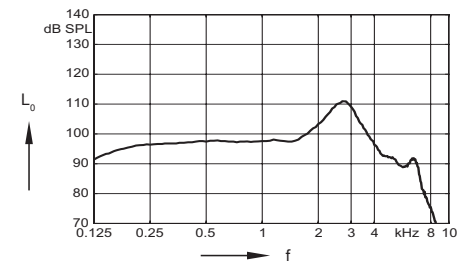
P-Receiver (Click mold) | Basic Data

2 ccm coupler



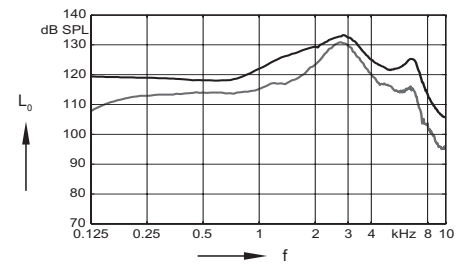
Output sound pressure level
($L_i = 90$ dB)

Full on gain
($L_i = 50$ dB)



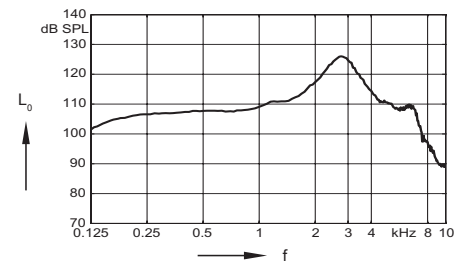
Frequency response
($L_i = 60$ dB)

Ear simulator



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

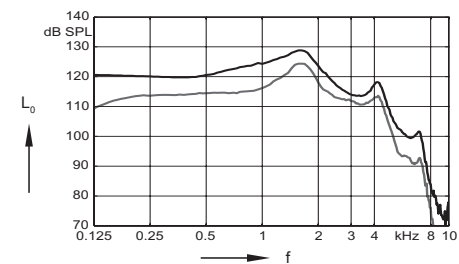
Full on gain
($L_i = 50$ dB)



Basic acoustic response
($L_i = 60$ dB)

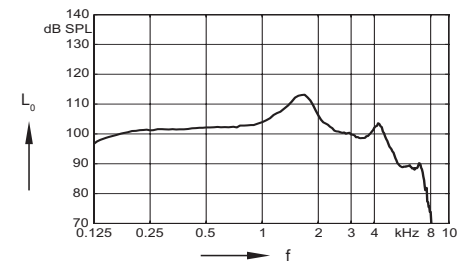
HP-Receiver (Custom Shell) | Basic Data

2 ccm coupler



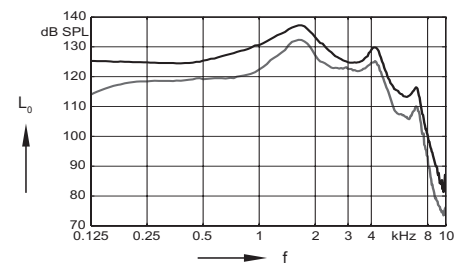
Output sound pressure level
($L_i = 90$ dB)

Full on gain
($L_i = 50$ dB)



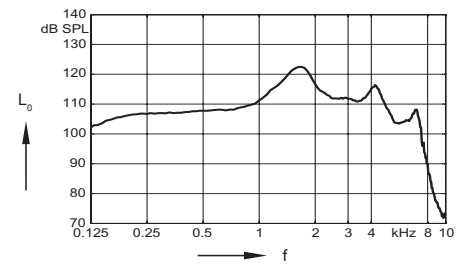
Frequency response
($L_i = 60$ dB)

Ear simulator



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

Full on gain
($L_i = 50$ dB)



Basic acoustic response
($L_i = 60$ dB)

Pure 13 Nx | Features and Accessories

	7Nx	5Nx	3Nx
Audiology			
Own Voice Processing (OVP) ¹⁾	■■■■■	■■■■■	■■■■■
3D Classifier	■■■■■	■■■■	■■■
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16	24 / 12
Hearing programs	6	6	6
Sound Clarity			
HD Spatial	●	●	●
Extended dynamic range	●	●	●
Extended bandwidth	●	—	—
EchoShield	●	—	—
HD Music (presets)	3	1	—
eWindScreen binaural ^{1) 2)}	●	●	—
eWindScreen	●	●	●
Noise Management			
Speech and noise management (steps)	7	5	3
SoundSmoothing (steps)	3	3	1
Directional speech enhancement (steps)	3	1	—
Feedback cancellation	●	●	●
Speech Quality			
Directionality			
Narrow Directionality ¹⁾	●	●	●
Spatial SpeechFocus ^{1) 3)}	●	●	—
SpeechFocus	●	●	—
TwinPhone ¹⁾	●	●	●
Frequency compression	●	●	●
Direct Streaming			
Made for iPhone	●	●	●
Adaptive Streaming Volume ⁴⁾	●	●	●
Tinnitus			
Notched Noise Therapy	●	●	●
Tinnitus therapy	●	●	●
Fitting			
Smart Optimizer and Data Logging	●	●	●
Acclimatization manager	●	●	●
Performance Guide	●	●	●
Insitugram	●	●	●
Learning (classes)	6	3	1
TeleCare			
TeleCare™ 3.0	●	●	●

¹⁾ req. bilateral fitting

²⁾ not available in the universal program on 5Nx

³⁾ for 5Nx in Stroll Program or with Spatial Configurator only

⁴⁾ streaming only

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

Pure 13 Nx | Features and Accessories

	7Nx / 5Nx / 3Nx
Style specific features	
Ingress Protection Rating	IP68
Charging contacts	—
Battery Size	13
Battery door on/off function	●
Nanocoated housing	●
e2e wireless® 3.0	●
Direct streaming	●
User controls coupling via e2e	●
Wireless programming	●
Instrument configurations	
Flat cover	—
Rotary volume control	—
Push button	—
Rocker switch	●
Color conversion kit	○
Battery door – integrated telecoil	—
Battery door – child lock	—
Small earhook	—
Programming accessories	
ConnexxAir, ConnexxLink®	—
NoahLink wireless	●
Programming adapter / cable	size 13
Accessories	
miniPocket™	○
StreamLine TV	○
Apps	
myControl™ App	○
touchControl™ App	○

● available ○ optional — not available

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
SPLIV	SPL In a Vertical magnetic field
AI-DI	Articulation Index - Directivity Index
IRIL	Input Related Interference Level
RTF	Reference Test Frequency

Standards and additional information

- ▶ All measurements with the 2 ccm coupler were performed according to ANSI S3.22-2014 and IEC 60118-0:2015 if applicable.
- ▶ All measurements with an ear simulator were performed according to IEC 118-0/A1:1994 and to DIN 45605 (frequency range) if applicable.
- ▶ Curves and figures representing FOG are measured with 20 dB reduction and 70 dB SPL input level.
- ▶ Figures representing Equivalent Input Noise incorporate a moderate expansion.
- ▶ Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil battery door only.
- ▶ 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 current consumption is measured in reference test setting (RTS) according to the applicable standards. Due to the settling behaviour of hearing instruments supporting RF (radio frequency), the battery current is measured 3 minutes after turning on (note: no pairing).
- ▶ The battery life is based on first fit settings using 60% of the fitting range and an ISTS (International Speech Test Signal) input signal at 65 dB SPL (note: pairing established). The actual battery life is determined by battery quality, hearing loss, sound environment, usage and activated feature set.
- ▶ The following acoustic connections / 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 7Nx devices only.



"Made for iPhone" means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance.

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.

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12/17 3.0 SI/18046-17

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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.