NUEAR™

SPRING 2012

HEARING SOLUTIONS PRODUCT CATALOG SUPPLEMENT

MAKING

BETTER HEARING

MORE PERSONAL THAN EVER

Patients come to you seeking a hearing solution that fits them perfectly. With our newest products, you now have more ways than ever to meet and exceed their expectations.

NuEAR™

Consisting of a newly styled 312 RIC and 312 mini BTE, our new NuEar SDS features everything you and your patients love about our popular wireless hearing aids — along with a new, more tactile control switch, updated compression strategy, new, patient-requested color options and much more.

NuEar SDS™

NUEAR SDS™

NuEAR SDS™

FEATURE CHART

	NuEAR SDS™ PREMIER	NuEAR SDS™ PRO	NuEAR SDS™ PRESTIGE
	VIBRANT	**ACTIVE**	**SOCIAL**
Sound Imaging	Optimal high-resolution sound imaging with frequency shaping in all 16 channels and 16 bands	High-resolution sound imaging with frequency shaping in 12 channels and 12 bands	Frequency shaping in 8 channels and 8 bands
WIRELESS			
Binaural Spatial Mapping	Premium Ear-to-Ear Processing	Advanced Ear-to-Ear Processing	
Machine Noise	●	●	
Wind	●	●	
Directionality	●	●	
Synchronized User Controls	●	●	●
Binaural Telephone Mode	●	●	●
Volume	●	●	●
Memory	●	●	●
SurfLink Accessory Compatibility	●	●	●
SurfLink Mobile	●	●	●
SurfLink Programmer	●	●	●
SurfLink Media	●	●	●
SurfLink Remote	●	●	●
Self Learning	●	●	●
Active Feedback Suppressor	●	●	●
Environmental Sound Perception	Premium 16-channel environmental adaptation with 5 levels of personalization	Advanced 12-channel environmental adaptation with 3 levels of personalization	Select 8-channel environmental adaptation with 2 levels of personalization
Vivid Speech[2]	●	●	●
Noise Reduction Strength	Maximum (20dB)	Moderate (8dB)	Light (6dB)
SoundClass EA	●	●	●
Machine Noise	●	●	●
Speech in Noise	●	●	
Wind	●	●	●
Quiet	●	●	●
Speech	●	●	●
Noise	●	●	●
SoundClass EA Adaptation Levels	5	3	on/off
Speech Shift	●	●	●
SoundPoint	●	●	●
Self Learning	●	●	●
Swap Fit	●	●	●
3D Speech Mapping	●		

ALL NUEAR SDS MODELS INCLUDE:

New Ergonomic Switch to Adjust Volume and Memory
New ISO Compression Strategy
New SnapFit Receivers (for RIC products)
ClearFocus 2
Automatic Telephone Solutions
Live Speech Mapping
Advanced Memories (Music, TV, Relax, T-Coil, Binaural Processing Off)

T² On Demand Programming
In-Situ Audiometry
Auto Path
Verify Comfort
Data Logging
4 Memories

NuEar SDS
FEATURE SUMMARY

NuEar SDS products are available with and without wireless capabilities. NuEar SDS product names contain the word Wireless to signify wireless technology – NuEar SDS Premier Wireless, NuEar SDS Pro Wireless, and NuEar SDS Prestige Wireless.

IRIS™ Technology leverages a unique ear-to-ear communication protocol. **Binaural Spatial Mapping**** applies the combined speed and power of multiple dual-core platforms to achieve parallel processing benefits. This innovative protocol queries, analyzes, and maps the acoustic space surrounding the patient, applying the appropriate signal processing strategy for directionality and noise management.

Vivid Speech² nearly doubles the noise reduction capability of our leading noise reduction and speech preservation system while still maintaining speech. Vivid Speech²:

- Instantly applies variable noise adaptation in all channels between each pause
- Has been proven to reduce listening effort and cognitive fatigue when used in tandem with ClearFocus 2*
- Provides up to 20dB of noise reduction

JustTalk,** a mode on our new SurfLink Mobile, enables true hands-free phone conversations by turning the wearer's NuEar SDS hearing aids into both the cell phone microphone and receiver.

A new **control switch** gives users a simple, tactile way to control volume and change memories.

Users will enjoy more dynamic and personalized sound with NuEar SDS' new **ISO Compression**.

The 312 RIC features **SnapFit receivers**, which offer easier receiver connection and ensure greater stability.

Unlike competing technologies that apply frequency compression broadly, our frequency lowering technology, **Speech Shift**, is designed to enhance real-time audibility by *intelligently* identifying high-frequency speech cues, then replicating them in lower frequencies. This allows NuEar SDS to maintain important frequency relationships, retaining the sound quality that comes from harmonic distribution, while providing audibility for high-frequency speech cues for patients that may have previously been considered unaidable.

Activated via SurfLink Remote, our **Vivid Speech Boost** feature allows patients to enable aggressive noise reduction while optimizing sound quality in extremely noisy situations.

*Sarampalis, A., Kalluri, S., Edwards, B., Hafter, E. (2009, October). Objective measures of listening effort: Effects of background noise and noise reduction. Journal of Speech, Language, and Hearing Research, 52, 1230-1240.

**Features only available when ordered with wireless functionality.

Thanks to **Self Learning**, NuEar SDS gradually and automatically learns patient volume control preferences in each active memory, which helps reduce the number of manual volume adjustments patients need to make.NuEar SDS wouldn't be a NuEar product without our **Active Feedback Suppressor**. This leading technology ensures wide fitting ranges and a fast response to more complex feedback.

HydraShield® 2 Omniphobic nano-coating provides unprecedented resistance against wax, oils and everyday moisture.

Our **Swap Fit** fitting function allows you to transfer patient settings from their current NuEar product to a new one — enabling more time for fine-tuning and counseling.

With **Synchronized User Adjustments**** patients can use a single hearing instrument to adjust volume or memory for the pair — eliminating the need to manually change two instruments.

Binaural Telephone Mode** places the phone-side hearing aid in Automatic Telephone Response or Telecoil mode while attenuating the off-side hearing aid.

ClearFocus 2 in NuEar SDS hearing aids is designed to better perform in highly complex environments with background noise.

Voice Indicators alert your patients to the status of their hearing aid, low battery, memory and telephone modes in their choice of male or female voices in a wide variety of languages.

Automatic Telephone Solutions (ATS) automatically detects telephone use and adjusts to the optimal acoustic frequency response for telephone listening.

Bring the benefits of telehealth to your practice with our **On Demand** options. Each one is designed to elevate your interaction with patients and provide a better way for you to deliver care. Includes T² On Demand, Audiology On Demand™ and innovative applications that work with the iPad®, iPhone® and iPod Touch®.

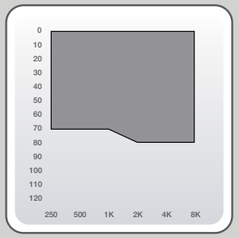
Available on the App Store

iPad, iPhone and iPod Touch are registered trademarks of Apple Inc.

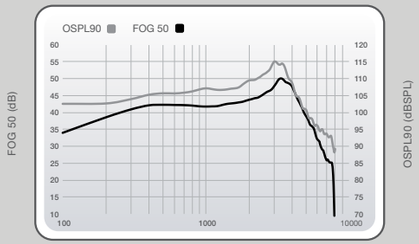
RIC 312

RECEIVER-IN-CANAL

NuEAR SDS PREMIER | PRO | PRESTIGE



NuEar SDS RIC 312 50.



OSPL90 (gray) and Full-On Gain (black) curves for the NuEar SDS RIC 312 at 115/50.

Matrix: *115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

ANSI/IEC DATA

Measurement	50 Gain Data	
	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	115	126
HFA OSPL90 (dB SPL)	108	NA
RTF OSPL90 (dB SPL)	NA	115
Peak Gain (dB)	50	61
HFA Full-On Gain (dB)	43	NA
RTF Full-On Gain (dB)	NA	50
Frequency Range (Hz)	100 - 7500	100 - 7500
Reference Test Frequency (kHz)	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	31	40
Harmonic Distortion		
500 Hz (%)	<3	<3
800 Hz (%)	<3	<3
1600 Hz (%)	<3	<3
Induction Coil Sensitivity		
HFA SPLITS (ANSI) (dB SPL)	86	NA
MASL (IEC) (dB SPL)	NA	80
ANSI/IEC Battery Current (mA)	1.3*	1.3*
Idle Current (mA)	1.2*	1.2*
Estimated Battery Life for 16-Hour Day		
312 Zinc Air (days)	9-11*	9-11*

ANSI/IEC DATA

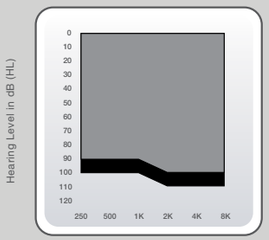
60 Gain Data		70 Gain Data		
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	Measurement
123	131	130	137	Peak OSPL90 (dB SPL)
116	NA	125	NA	HFA OSPL90 (dB SPL)
NA	126	NA	136	RTF OSPL90 (dB SPL)
60	67	70	78	Peak Gain (dB)
53	NA	64	NA	HFA Full-On Gain (dB)
NA	64	NA	75	RTF Full-On Gain (dB)
100 - 5400	100 - 5300	100 - 5300	100 - 4100	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
39	51	48	61	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
95	NA	102	NA	HFA SPLITS (ANSI) (dB SPL)
NA	93	NA	104	MASL (IEC) (dB SPL)
1.2*	1.2*	1.4*	1.4*	ANSI/IEC Battery Current (mA)
1.1*	1.1*	1.2*	1.2*	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
10-12*	10-12*	9-11*	9-11*	312 Zinc Air (days)

*Idle, ANSI/IEC Battery Current and Estimated Battery Life based on wired performance. Results for wireless products will vary based on wireless usage.

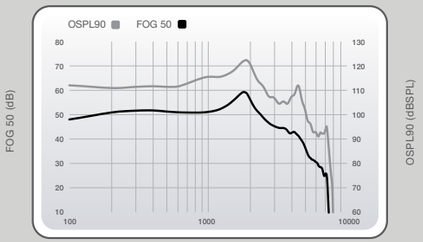
NuEAR SDS PREMIER | PRO | PRESTIGE

RIC 312 MAX POWER

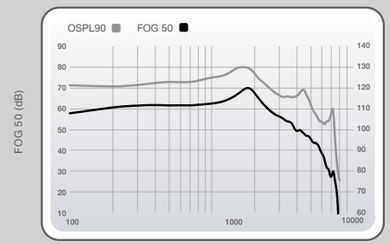
RECEIVER-IN-CANAL MAX POWER



NuEar SDS RIC 312 Max Power 60 (gray), NuEar SDS RIC 312 Max Power 70 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the NuEar SDS RIC 312 Max Power at 123/60.



OSPL90 (gray) and Full-On Gain (black) curves for the NuEar SDS RIC 312 Max Power at 130/70.

Matrices: *123/60, 130/70*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

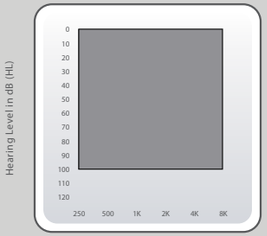
Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

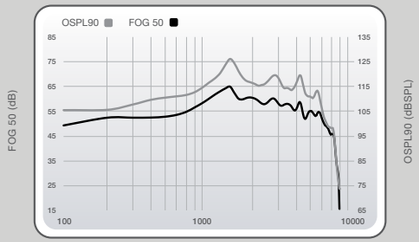
MINI BTE

BEHIND-THE-EAR

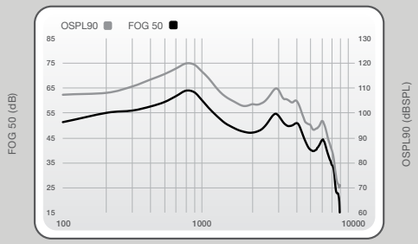
NuEAR SDS™ PREMIER | PRO | PRESTIGE



NuEar SDS mini BTE fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the NuEar SDS mini BTE with Earhook.



OSPL90 (gray) and Full-On Gain (black) curves for the NuEar SDS mini BTE with Thin Tube.

Matrix: *126/65*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

ANSI/IEC DATA

	Earhook		Thin Tube *(Size 3+, Occluded)*	
Measurement	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	126	131	120	124
HFA OSPL90 (dB SPL)	118	NA	108	NA
RTF OSPL90 (dB SPL)	NA	130	NA	112
Peak Gain (dB)	65	70	64	68
HFA Full-On Gain (dB)	60	NA	52	NA
RTF Full-On Gain (dB)	NA	69	NA	57
Frequency Range (Hz)	100 - 7400	100 - 7400	100 - 7200	100 - 7400
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	41	53	31	37
Harmonic Distortion				
500 Hz (%)	<5	<5	<2	<2
800 Hz (%)	<3	<3	<1	<1
1600 Hz (%)	<3	<3	<2	<2
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	97	NA	87	NA
MASL (IEC) (dB SPL)	NA	92	NA	86
ANSI/IEC Battery Current (mA)	1.3*	1.3*	1.3*	1.3*
Idle Current (mA)	1.2*	1.2*	1.2*	1.2*
Estimated Battery Life for 16-Hour Day				
312 Zinc Air (days)	9-11*	9-11*	9-11*	9-11*

*Idle, ANSI/IEC Battery Current and Estimated Battery Life based on wired performance. Results for wireless products will vary based on wireless usage.

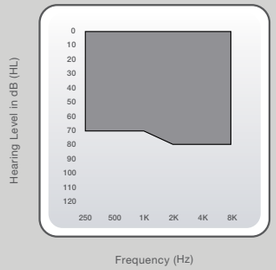
INTRO™ 5/4

The exceptional quality and simple functionality that made our wireless hearing aids so popular with patients and professionals has never been available in an entry-level line — until now! Two patient-driven wireless hearing aids that deliver NuEar's high standards of performance at a more economical price.

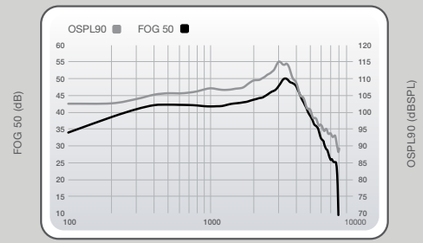
RIC 312

RECEIVER-IN-CANAL

INTRO 5|4



Intro RIC 312 50.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 at 115/50.

Matrix: *115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

ANSI/IEC DATA

Measurement	50 Gain Data	
	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	115	126
HFA OSPL90 (dB SPL)	108	NA
RTF OSPL90 (dB SPL)	NA	115
Peak Gain (dB)	50	61
HFA Full-On Gain (dB)	43	NA
RTF Full-On Gain (dB)	NA	50
Frequency Range (Hz)	100 - 7500	100 - 7500
Reference Test Frequency (kHz)	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	31	40
Harmonic Distortion		
500 Hz (%)	<3	<3
800 Hz (%)	<3	<3
1600 Hz (%)	<3	<3
Induction Coil Sensitivity		
HFA SPLITS (ANSI) (dB SPL)	86	NA
MASL (IEC) (dB SPL)	NA	80
ANSI/IEC Battery Current (mA)	1.3*	1.3*
Idle Current (mA)	1.2*	1.2*
Estimated Battery Life for 16-Hour Day		
312 Zinc Air (days)	9-11*	9-11*

INTRO 5|4

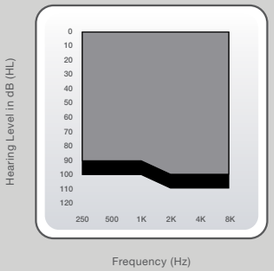
RIC 312 MAX POWER

RECEIVER-IN-CANAL MAX POWER

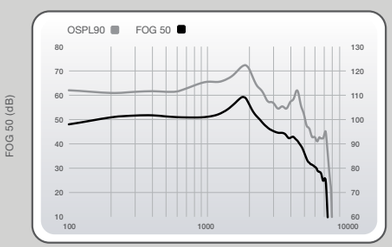
ANSI/IEC DATA

60 Gain Data		70 Gain Data		Measurement
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	
123	131	130	137	Peak OSPL90 (dB SPL)
116	NA	125	NA	HFA OSPL90 (dB SPL)
NA	126	NA	136	RTF OSPL90 (dB SPL)
60	67	70	78	Peak Gain (dB)
53	NA	64	NA	HFA Full-On Gain (dB)
NA	64	NA	75	RTF Full-On Gain (dB)
100 - 5400	100 - 5300	100 - 5300	100 - 4100	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
39	51	48	61	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
95	NA	102	NA	HFA SPLITS (ANSI) (dB SPL)
NA	93	NA	104	MASL (IEC) (dB SPL)
1.2*	1.2*	1.4*	1.4*	ANSI/IEC Battery Current (mA)
1.1*	1.1*	1.2*	1.2*	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
10-12*	10-12*	9-11*	9-11*	312 Zinc Air (days)

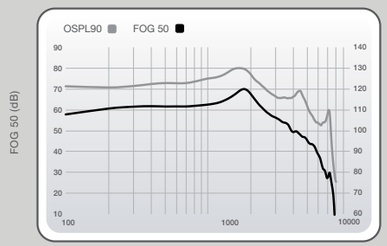
*Idle, ANSI/IEC Battery Current and Estimated Battery Life based on wired performance. Results for wireless products will vary based on wireless usage.



Intro RIC 312 Max Power 60 (gray), Intro RIC 312 Max Power 70 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 Max Power at 123/60.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 Max Power at 130/70.

Matrices: *123/60, 130/70*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

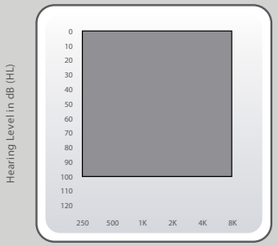
Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

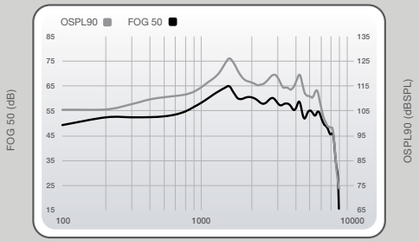
MINI BTE

BEHIND-THE-EAR

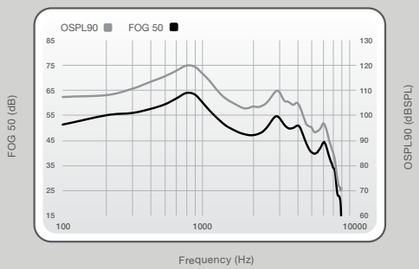
INTRO™ 5|4



Intro mini BTE fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro mini BTE with Earhook.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro mini BTE with Thin Tube.

Matrix: *126/65*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

ANSI/IEC DATA

	Earhook		Thin Tube *(Size 3+, Occluded)*	
Measurement	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	126	131	120	124
HFA OSPL90 (dB SPL)	118	NA	108	NA
RTF OSPL90 (dB SPL)	NA	130	NA	112
Peak Gain (dB)	65	70	64	68
HFA Full-On Gain (dB)	60	NA	52	NA
RTF Full-On Gain (dB)	NA	69	NA	57
Frequency Range (Hz)	100 - 7400	100 - 7400	100 - 7200	100 - 7400
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	41	53	31	37
Harmonic Distortion				
500 Hz (%)	<5	<5	<2	<2
800 Hz (%)	<3	<3	<1	<1
1600 Hz (%)	<3	<3	<2	<2
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	97	NA	87	NA
MASL (IEC) (dB SPL)	NA	92	NA	86
ANSI/IEC Battery Current (mA)	1.3*	1.3*	1.3*	1.3*
Idle Current (mA)	1.2*	1.2*	1.2*	1.2*
Estimated Battery Life for 16-Hour Day				
312 Zinc Air (days)	9-11*	9-11*	9-11*	9-11*

*Idle, ANSI/IEC Battery Current and Estimated Battery Life based on wired performance. Results for wireless products will vary based on wireless usage.

INTRO™ 3/2 WIRELESS

Combining the solid performance of our Intro family with the unprecedented benefits of IRIS Technology, our new Intro Wireless line enables you to offer wireless hearing aids to virtually all your patients.

RIC 312

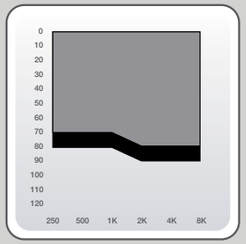
RECEIVER-IN-CANAL

INTRO™ 3/2 WIRELESS

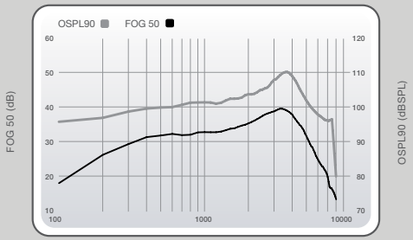
INTRO™ 3/2 WIRELESS

RIC 312
MAX POWER

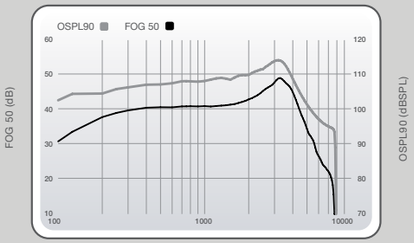
RECEIVER-IN-CANAL
MAX POWER



Intro RIC 312 40 (gray), Intro RIC 312 50 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 at 110/40.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 at 115/50.

Matrices: *110/40, 115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

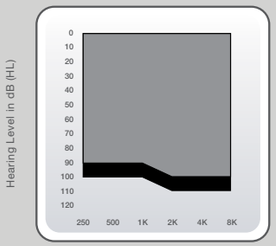
Battery Size: *312*

ANSI/IEC DATA

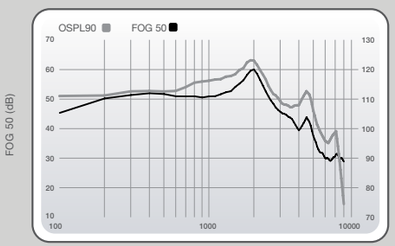
Measurement	40 Gain Data		50 Gain Data	
	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	110	122	115	126
HFA OSPL90 (dB SPL)	102	NA	108	NA
RTF OSPL90 (dB SPL)	NA	110	NA	116
Peak Gain (dB)	40	51	50	61
HFA Full-On Gain (dB)	31	NA	44	NA
RTF Full-On Gain (dB)	NA	39	NA	51
Frequency Range (Hz)	100 - 7600	NA	100 - 7300	NA
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	26	32	31	41
Harmonic Distortion				
500 Hz (%)	<3	<3	<3	<3
800 Hz (%)	<3	<3	<3	<3
1600 Hz (%)	<3	<3	<3	<3
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	86	NA	91	NA
MASL (IEC) (dB SPL)	NA	69	NA	81
ANSI/IEC Battery Current (mA)	1.5	1.5	1.6	1.6
Idle Current (mA)	1.4	1.4	1.5	1.5
Estimated Battery Life for 16-Hour Day				
312 Zinc Air (days)	5-8	5-8	5-8	5-8

ANSI/IEC DATA

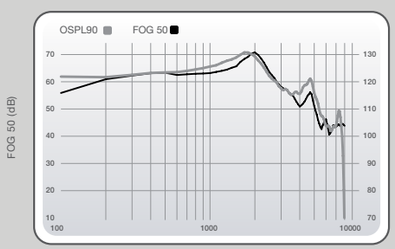
60 Gain Data		70 Gain Data		Measurement
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	
123	130	130	139	Peak OSPL90 (dB SPL)
115	NA	125	NA	HFA OSPL90 (dB SPL)
NA	127	NA	136	RTF OSPL90 (dB SPL)
60	69	70	79	Peak Gain (dB)
52	NA	64	NA	HFA Full-On Gain (dB)
NA	63	NA	75	RTF Full-On Gain (dB)
100 - 5400	NA	100 - 5300	NA	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
39	52	48	61	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
99	NA	108	NA	HFA SPLITS (ANSI) (dB SPL)
NA	93	NA	105	MASL (IEC) (dB SPL)
1.4	1.4	2	2	ANSI/IEC Battery Current (mA)
1.3	1.3	1.6	1.6	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
5-8	5-8	3-6	3-6	312 Zinc Air (days)



Intro RIC 312 Max Power 60 (gray), Intro RIC 312 Max Power 70 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 Max Power at 123/60.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 312 Max Power at 130/70.

Matrices: *123/60, 130/70*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

RIC 13

RECEIVER-IN-CANAL

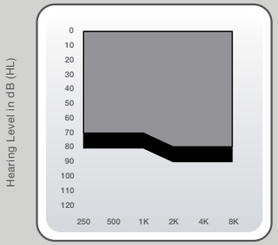
INTRO™ 3/2 WIRELESS

INTRO™ 3/2 WIRELESS

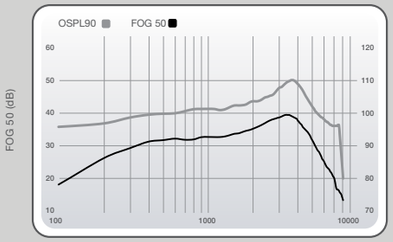
RIC 13

MAX POWER

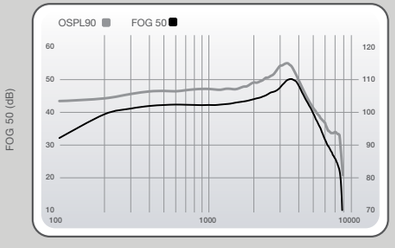
RECEIVER-IN-CANAL
MAX POWER



Intro RIC 13 40 (gray), Intro RIC 13 50 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 13 at 110/40.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 13 at 115/50.

Matrices: *110/40, 115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

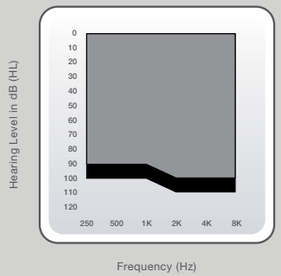
Battery Size: *13*

ANSI/IEC DATA

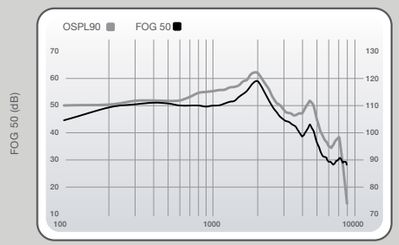
Measurement	40 Gain Data		50 Gain Data	
	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	110	122	115	126
HFA OSPL90 (dB SPL)	102	NA	108	NA
RTF OSPL90 (dB SPL)	NA	110	NA	116
Peak Gain (dB)	40	51	50	61
HFA Full-On Gain (dB)	31	NA	44	NA
RTF Full-On Gain (dB)	NA	39	NA	51
Frequency Range (Hz)	100 - 7600	100 - 7700	100 - 7300	100 - 7500
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	25	32	31	41
Harmonic Distortion				
500 Hz (%)	<3	<3	<3	<3
800 Hz (%)	<3	<3	<3	<3
1600 Hz (%)	<3	<3	<3	<3
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	84	NA	88	NA
MASL (IEC) (dB SPL)	NA	70	NA	81
ANSI/IEC Battery Current (mA)	1.6	1.6	1.7	1.7
Idle Current (mA)	1.5	1.5	1.6	1.6
Estimated Battery Life for 16-Hour Day				
13 Zinc Air (days)	12-14	12-14	12-14	12-14

ANSI/IEC DATA

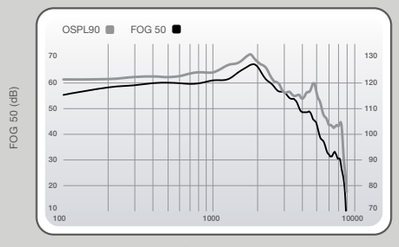
60 Gain Data		70 Gain Data		Measurement
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	
123	130	130	137	Peak OSPL90 (dB SPL)
115	NA	124	NA	HFA OSPL90 (dB SPL)
NA	127	NA	135	RTF OSPL90 (dB SPL)
60	69	70	79	Peak Gain (dB)
52	NA	44	NA	HFA Full-On Gain (dB)
NA	63	NA	75	RTF Full-On Gain (dB)
100 - 5400	100 - 4700	100 - 5000	100 - 4500	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
38	52	47	60	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
98	NA	107	NA	HFA SPLITS (ANSI) (dB SPL)
NA	83	NA	105	MASL (IEC) (dB SPL)
1.5	1.5	2.0	2.0	ANSI/IEC Battery Current (mA)
1.4	1.4	1.7	1.7	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
12-14	12-14	10-12	10-12	13 Zinc Air (days)



Intro RIC 13 Max Power 60 (gray), Intro RIC 13 Max Power 70 (black) fitting ranges.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 13 Max Power at 123/60.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro RIC 13 Max Power at 130/70.

Matrices: *123/60, 130/70*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

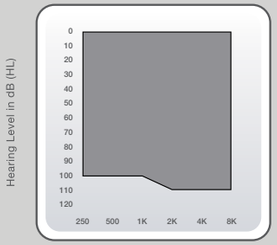
Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *13*

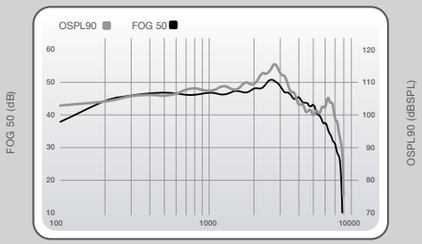
ITE

IN-THE-EAR

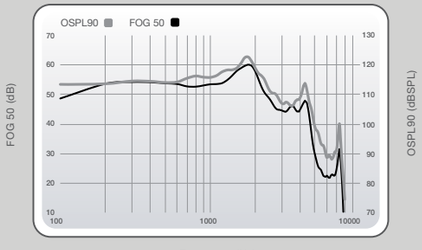
INTRO™ 3/2 WIRELESS



Intro ITE fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro ITE at 115/50.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro ITE at 123/60.

Matrices: *115/50, 123/60*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *13*

ANSI/IEC DATA

Measurement	ITE 115/50		ITE 123/60	
	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	115	124	123	130
HFA OSPL90 (dB SPL)	110	NA	116	NA
RTF OSPL90 (dB SPL)	NA	116	NA	128
Peak Gain (dB)	50	58	60	68
HFA Full-On Gain (dB)	46	NA	53	NA
RTF Full-On Gain (dB)	NA	54	NA	66
Frequency Range (Hz)	100 - 6800	100 - 7000	100 - 5000	100 - 5100
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	33	41	39	53
Harmonic Distortion				
500 Hz (%)	<3	<3	<3	<3
800 Hz (%)	<3	<3	<3	<3
1600 Hz (%)	<3	<3	<3	<3
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	95	NA	101	NA
MASL (IEC) (dB SPL)	NA	83	NA	95
ANSI/IEC Battery Current (mA)	1.22	1.22	1.22	1.22
Idle Current (mA)	1.14	1.15	1.13	1.13
Estimated Battery Life for 16-Hour Day				
13 Zinc Air (days)	12-16	12-16	12-16	12-16

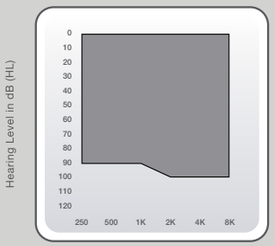
HS

HALF-SHELL

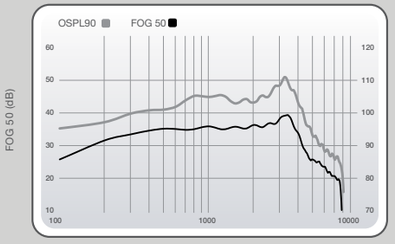
INTRO™ 3/2 WIRELESS

ANSI/IEC DATA

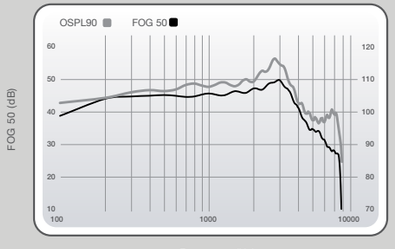
HS 110/40		HS 115/50		Measurement
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	
110	119	115	124	Peak OSPL90 (dB SPL)
105	NA	109	NA	HFA OSPL90 (dB SPL)
NA	111	NA	116	RTF OSPL90 (dB SPL)
40	49	50	58	Peak Gain (dB)
36	NA	46	NA	HFA Full-On Gain (dB)
NA	43	NA	53	RTF Full-On Gain (dB)
100 - 7000	100 - 7200	100 - 6500	100 - 6800	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
28	36	32	41	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
89	NA	94	NA	HFA SPLITS (ANSI) (dB SPL)
NA	71	NA	82	MASL (IEC) (dB SPL)
1.22	1.22	1.22	1.22	ANSI/IEC Battery Current (mA)
1.15	1.15	1.15	1.15	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
8-9	8-9	8-9	8-9	312 Zinc Air (days)



Intro HS fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro HS at 110/40.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro HS at 115/50.

Matrices: *110/40, 115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

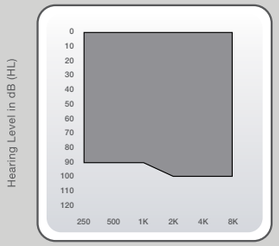
Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

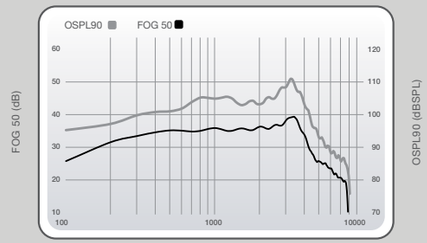
Battery Size: *312*

ITC

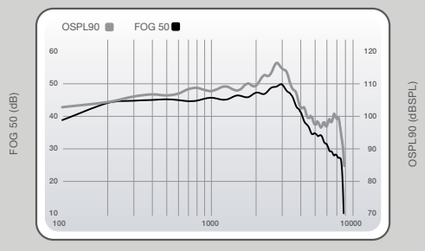
IN-THE-CANAL



Intro ITC fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro ITC at 110/40.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro ITC at 115/50.

Matrices: *110/40, 115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *312*

ANSI/IEC DATA

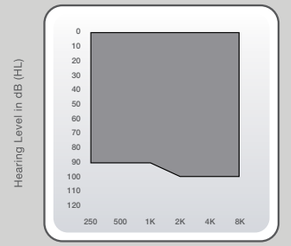
Measurement	ITC 110/40		ITC 115/50	
	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	110	119	115	124
HFA OSPL90 (dB SPL)	105	NA	109	NA
RTF OSPL90 (dB SPL)	NA	111	NA	116
Peak Gain (dB)	40	49	50	58
HFA Full-On Gain (dB)	36	NA	46	NA
RTF Full-On Gain (dB)	NA	43	NA	53
Frequency Range (Hz)	100 - 7000	100 - 7200	100 - 6500	100 - 6800
Reference Test Frequency (kHz)	NA	1.6	NA	1.6
HFA Frequencies (kHz)	1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA
Reference Test Gain (dB)	28	36	32	41
Harmonic Distortion				
500 Hz (%)	<3	<3	<3	<3
800 Hz (%)	<3	<3	<3	<3
1600 Hz (%)	<3	<3	<3	<3
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	89	NA	94	NA
MASL (IEC) (dB SPL)	NA	71	NA	82
ANSI/IEC Battery Current (mA)	1.22	1.22	1.22	1.22
Idle Current (mA)	1.15	1.15	1.15	1.15
Estimated Battery Life for 16-Hour Day				
312 Zinc Air (days)	8-9	8-9	8-9	8-9

CIC

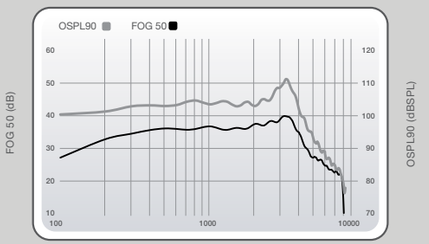
COMPLETELY-IN-CANAL

ANSI/IEC DATA

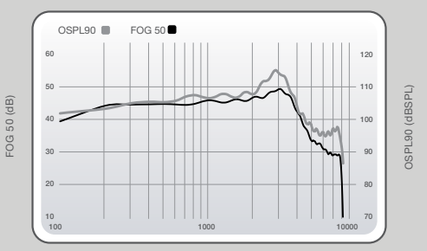
CIC 110/40		CIC 115/50		Measurement
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	
110	119	115	124	Peak OSPL90 (dB SPL)
104	NA	110	NA	HFA OSPL90 (dB SPL)
NA	110	NA	115	RTF OSPL90 (dB SPL)
40	49	50	58	Peak Gain (dB)
35	NA	46	NA	HFA Full-On Gain (dB)
NA	43	NA	54	RTF Full-On Gain (dB)
100 - 7500	100 - 7600	100 - 7500	100 - 7600	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
28	35	32	40	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
				Induction Coil Sensitivity
NA	NA	NA	NA	HFA SPLITS (ANSI) (dB SPL)
NA	NA	NA	NA	MASL (IEC) (dB SPL)
1.17	1.17	1.17	1.17	ANSI/IEC Battery Current (mA)
1.12	1.12	1.13	1.13	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
4-6	4-6	4-6	4-6	10 Zinc Air (days)



Intro CIC fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro CIC at 110/40.



OSPL90 (gray) and Full-On Gain (black) curves for the Intro CIC at 115/50.

Matrices: *110/40, 115/50*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Threshold: *24dB range in 4dB steps*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *10*

SurfLink®

Thanks to our innovative SurfLink Accessories — including the new SurfLink Mobile — our wireless hearing aids let patients live life the way they want — no wires attached.

LIFE WITHOUT LIMITATIONS

SurfLink®

NEW!

SurfLink Mobile

Hands-free phone conversations (and more) are here with our new SurfLink Mobile. This versatile device is the industry's most unique cell phone solution, assistive listening device, media streamer, and hearing aid remote all rolled into one.

- Using our revolutionary JustTalk mode, SurfLink Mobile enables hands-free cell phone conversations by turning our wireless hearing aids into the phone microphone *and* receiver:
  - o **Microphone** — The wearer's hearing aids pick up their voice and send it to the person they're talking to
  - o **Receiver** — SurfLink Mobile streams the voice on the other end of the phone directly to both of the wearer's hearing aids for binaural listening
- Directional microphone enhances one-on-one conversations in noisy environments
- Omnidirectional capability is ideal for listening in meetings or group settings
- Wirelessly streams sound from any TVs or MP3 players using Bluetooth® or an audio connector cable.
- Can also be used as a powerful ALD as well as a hearing aid remote

SurfLink Media

SurfLink Media provides patients with the first set-and-forget media streaming solution. Simply plug a TV, radio or MP3 player into SurfLink Media and rich, stereo sound is streamed directly to any wireless hearing aids in range without pairing or body-worn relay devices. SurfLink Media:

- Streams stereo sound directly from media devices to the patient's hearing aids without pairing or body-worn relay devices
- Uses Intelligent Media Mobility to allow seamless room-to-room transitions between media devices
- Enables multiple people wearing wireless hearing aids to connect to a single device
- Eliminates audio delay and lip-sync issues* commonly found with other wireless systems
- Helps prevent patients and companions from fighting over the volume

SurfLink Programmer

Our SurfLink Programmer, combined with IRIS Technology and Inspire® fitting software, gives you the ultimate speed and flexibility in direct-to-hearing aid wireless programming with no relay device.

- Detects your patients' wireless devices in seconds
- Features at least a 20-foot range
- Frees patients to move around during counseling and demonstrations
- Connects via standard USB cable
- Requires no additional hardware for the patient
- Is 4x faster than HiPro and nearly twice as fast as NOAHLink and nEARcom

SurfLink Remote

With the optional SurfLink Remote, patients can control memory and volume adjustments, mute their hearing instruments, or go in and out of streaming mode if they desire.

*Latency is unnoticeable according to International Telecommunications Union standards.

miniscopic™

Patients want them. Now more can have them! With the introduction of two new technology levels, we're making Miniscopic, our premier line of custom-fit invisible-in-the-canal hearing aids, available to more patients than ever before.

miniscopic™

miniscopic™
FEATURE CHART

	miniscopic™ PREMIER	miniscopic™ PRO	miniscopic™ PRESTIGE
	VIBRANT	**ACTIVE**	**SOCIAL**
Sound Imaging	Optimal high-resolution sound imaging with frequency shaping in all 16 channels and 16 bands	High-resolution sound imaging with frequency shaping in 12 channels and 12 bands	Frequency shaping in 8 channels and 8 bands
Active Feedback Suppressor	●	●	●
Environmental Sound Perception	Premium 16-channel environmental adaptation with 5 levels of personalization	Advanced 12-channel environmental adaptation with 3 levels of personalization	Select 8-channel environmental adaptation with 2 levels of personalization
Vivid Speech[2]	●	●	●
Noise Reduction Strength	Maximum (20dB)	Moderate (8dB)	Light (6dB)
SoundClass EA	●	●	●
Machine Noise	●	●	●
Speech in Noise	●	●	
Wind	●	●	●
Quiet	●	●	●
Speech	●	●	●
Noise	●	●	●
SoundClass EA Adaptation Levels	5	3	on/off
Speech Shift	●	●	●
SoundPoint	●	●	●
Self Learning	●	●	●
Swap Fit	●	●	●
3D Speech Mapping	●		

ALL MINISCOPIC MODELS INCLUDE:

Live Speech Mapping
Advanced Memories (Music, TV, Relax)
Indicators (Level-Dependent Speech, Level-Dependent Tone)
T[2] On Demand Programming
In-Situ Audiometry

T[2] Remote
Auto Path
Verify Comfort
Data Logging
4 Memories

Miniscopic
FEATURE SUMMARY

miniscopic™ IIC
INVISIBLE-IN-THE-CANAL

Vivid Speech² nearly doubles the noise reduction capability of our leading noise reduction and speech preservation system while still maintaining speech*. Vivid Speech²:

- Instantly applies variable noise adaptation in all channels between each pause
- Provides up to 20dB of noise reduction

Unlike competing technologies that apply frequency compression broadly, our frequency audibility technology, **Speech Shift**, is designed to enhance real-time audibility by *intelligently* identifying high-frequency speech cues, then replicating them in lower frequencies. This allows Miniscopic to maintain important frequency relationships, retaining the sound quality that comes from harmonic distribution, while providing audibility for high-frequency speech cues for patients that may have previously been considered unaidable.

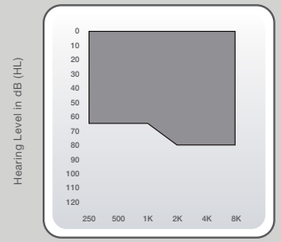
Miniscopic wouldn't be a NuEar product without our **Active Feedback Suppressor**. This leading technology ensures wide fitting ranges and a fast response to more complex feedback.

Voice Indicators alert your patients to the status of their hearing aid, low battery, memory and telephone modes in their choice of male or female voices in a wide variety of languages.

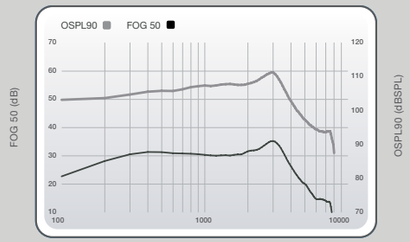
*Sarampalis, A., Kalluri, S., Edwards, B., Hafter, E. (2009, October). Objective measures of listening effort: Effects of background noise and noise reduction. Journal of Speech, Language, and Hearing Research, 52, 1230-1240.

ANSI/IEC DATA

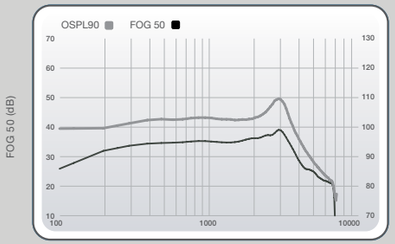
35 Gain Data		40 Gain Data		
ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler	Measurement
111	120	111	120	Peak OSPL90 (dB SPL)
106	NA	104	NA	HFA OSPL90 (dB SPL)
NA	114	NA	111	RTF OSPL90 (dB SPL)
35	45	40	50	Peak Gain (dB)
31	NA	36	NA	HFA Full-On Gain (dB)
NA	38	NA	44	RTF Full-On Gain (dB)
7600	7700	7700	7700	Frequency Range (Hz)
NA	1.6	NA	1.6	Reference Test Frequency (kHz)
1.0, 1.6, 2.5	NA	1.0, 1.6, 2.5	NA	HFA Frequencies (kHz)
29	31	27	36	Reference Test Gain (dB)
				Harmonic Distortion
<3	<3	<3	<3	500 Hz (%)
<3	<3	<3	<3	800 Hz (%)
<3	<3	<3	<3	1600 Hz (%)
1.1	1.1	1.2	1.2	ANSI/IEC Battery Current (mA)
1.0	1.0	1.0	1.0	Idle Current (mA)
				Estimated Battery Life for 16-Hour Day
5-7	5-7	5-7	5-7	10 Zinc Air (days)



Miniscopic IIC fitting range.



OSPL90 (gray) and Full-On Gain (black) curves for the Miniscopic IIC at a matrix of 111/35.



OSPL90 (gray) and Full-On Gain (black) curves for the Miniscopic IIC at a matrix of 111/40.

Matrices: *111/35, 111/40*

Maximum Output: *Up to 30dB reduction in 2dB steps (range varies by channel)*

Compression Ratio: *1:1-3:1 (range varies by channel)*

Battery Size: *10*

NuEAR™

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