

S13 Arista™ Digital Signal Processor

Sophisticated multichannel digital signal processing featuring feedback management and noise management.



*S13 Arista BTE
MultiMemory*

*S13 Arista BTE
with PDI MM*

Feature Summary:

3 WDRC Channels with 2 adjustable crossover frequencies and 7 Band Equalizer to optimize fine-tuning of the response for the most unique hearing loss configurations.

Precision Directional Imaging utilizes advanced directional microphone technology to enhance speech understanding in noisy environments, available on the S13 Arista PDI BTE.

Adaptive Feedback Management reduces feedback at use settings.

Adaptive Noise Management reduces gain of steady-state noise only in channels where noise is detected.

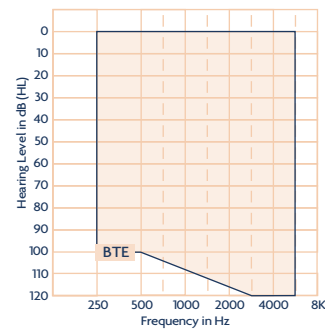
MultiChannel Expansion technology reduces circuit and low-level environmental noise typically associated with WDRC hearing aids.

In Situ Audiometry and Loudness Verification administers pure tones through the hearing aid to establish threshold, UCL, or to verify soft and loud inputs.

Programmable Indicator Tones for low battery and MultiMemory.

MultiMemory with up to 3 fully programmable memories accessed via a push button.

Programmable Telecoil accessed via push button allows for fully adjustable frequency response of telecoil within a memory. Enable M/T mode allows for combined microphone and telecoil inputs.



Wireless FM and Direct Audio Input (DAI) capable with adjustability of the environmental microphone below the level of the DAI signal.

Volume Control with optional disable VC feature within PFS.

M-O Switch.

Tamper Resistant Battery Door.

Size 13 Battery.

Options:

Wide Variety of Case Colors available.

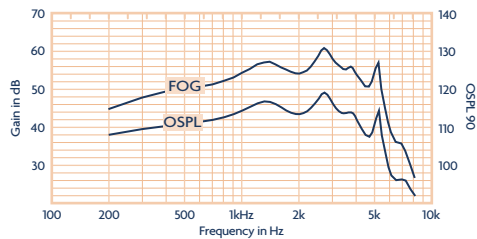
Direct Audio Input accessories.

Pediatric and Filtered Earhooks available.

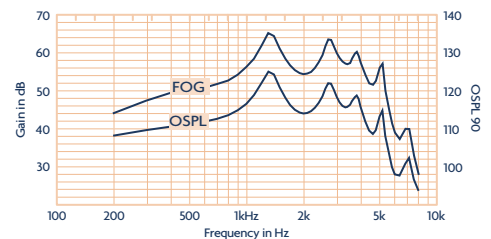


S13 Arista Digital BTE

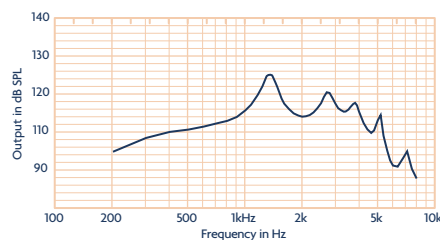
Peak OSPL90 (dB SPL)	ANSI 125	IEC 130
HFA OSPL90 (dB SPL)	118	NA
RTF OSPL90 (dB SPL)	NA	125
Peak Gain (dB SPL)	65	69
HFA Full On Gain (dB SPL)	57	NA
RTF Full On Gain (dB SPL)	NA	64
Frequency Range (kHz)	0.2-6.0	NA
Ref. Test Frequency (kHz)	1.0, 1.6, 2.5	1.6
Ref. Test Gain (dB SPL) (ansi-hfa; iec-rtf)	40	46
Harmonic Distortion		
500 Hz % max	<5%	<5%
800 Hz % max	<5%	<5%
1600 Hz % max	<3%	<3%
Equivalent Input Noise (dB SPL)	<25	<25
(55-90 ANSI) (55-80 IEC) - test mode		
Attack Time (MS)	5	5
Release Time 0.1-s (MS)	50	50
Release Time 2.0-s (MS)	250	250
Induction Coil Sensitivity		
HFA SPLITS (ANSI 96) dB SPL	98	NA
MASL (IEC 118-1) dB SPL	NA	89
Battery Current (mA)	1.05	1.05
Idle (mA)	1.0	1.0
Estimated Battery Life for 16 hour day 13 Zinc Air Battery	17	17



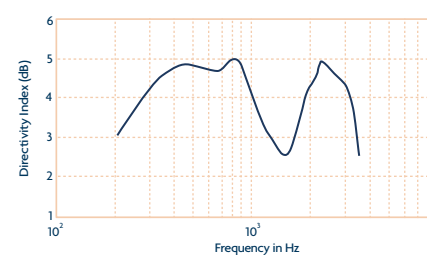
OSPL90 and Full On Gain curves for the S13 Arista BTE with the default filtered (white 680 ohm damper) earhook.



OSPL90 and Full On Gain curves for the S13 Arista BTE with an unfiltered earhook.



Induction Coil Sensitivity at Full On Gain. Data obtained in RMS magnetic field strength of 31.6 mA/meter.



KEMAR Directivity Indices plotted across the frequency range for the S13 Arista PDI BTE. KEMAR DI Values: 500 Hz = 4.8, 1000 Hz = 4.1, 2000 Hz = 4.3, 4000 Hz = 1.2

Measurement Conditions and Recommendations

The data for S13 Arista are obtained and performance is expressed according to ANSI S3.22 (1996) and IEC 60118-0 (1983), 60118-1 (1999), and 60118-2 (1997). Electro-acoustic data are measured on a Starkey proprietary Real Time Analyzer. Where applicable 2D polar plots and DI data are measured on a B&K PULSE 3560C in an anechoic chamber. Data may be subject to change with product refinement.

S13 Arista hearing instruments may be set to Test Mode within PFS by reading the hearing aid and choosing Set to Full On Gain (Test Mode) from the Activity drop down menu. Test data results may vary from these specifications due to adaptive signal processing effects and available measurement equipment.

