

Arista Custom Digital Signal Processor

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



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.

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.

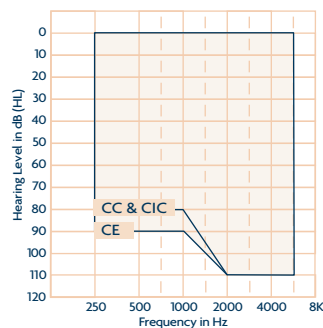
Programmable Indicator Tones for low battery and MultiMemory.

Standard Features:

Available in custom CE, LP, HS, CC, SE, and CIC styles.

Volume Control standard for all styles, excluding CIC. Optional disable VC feature within PFS.

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



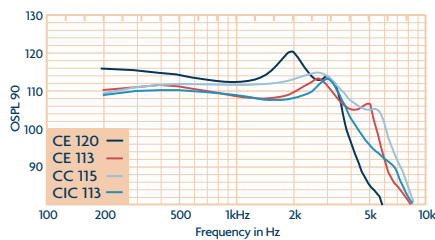
Options:

Precision Directional Imaging (PDI) technology available on MultiMemory CE, LP, HS, and CC styles. PDI is activated in any memory within PFS.

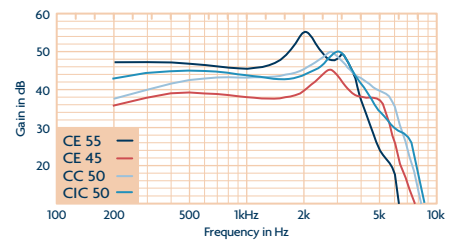
Programmable Telecoil or Autocoil available on MultiMemory CE, LP, HS, and CC styles. Telecoil turned on in any memory within PFS and accessed via a push button. Autocoil is programmed within memory 2 and memory 3 will not be accessible.



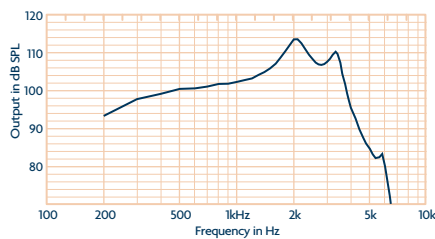
	FULL CONCHA (CE, LP)		CANAL (HS, CC, SE)		TYMPANETTE (CIC)	
	ANSI	IEC	ANSI	IEC	ANSI	IEC
Peak OSPL90 (dB SPL)	113-120	121-128	110-115	119-123	110-113	119-122
HFA OSPL90 (dB SPL)	108-114	NA	105-112	NA	105-108	NA
RTF OSPL90 (dB SPL)	NA	116-124	NA	113-120	NA	113-116
Peak Gain (dB SPL)	30-55	39-63	30-50	40-60	30-50	40-60
HFA Full On Gain (dB SPL)	24-48	NA	22-45	NA	22-42	NA
RTF Full On Gain (dB SPL)	NA	31-57	NA	31-53	NA	31-50
Frequency Range (kHz)	0.2-7.0	NA	0.2-8.0	NA	0.2-8.0	NA
Ref. Test Frequency (kHz)	1.0, 1.6, 2.5	1.6	1.0, 1.6, 2.5	1.6	1.0, 1.6, 2.5	1.6
RTG (dB SPL) (ansi-hfa; iec-rtf)	24-37	24-49	22-35	24-45	22-31	24-41
Harmonic Distortion						
500 Hz	<3%	<3%	<3%	<3%	<3%	<3%
800 Hz	<3%	<3%	<3%	<3%	<3%	<3%
1600 Hz	<3%	<3%	<3%	<3%	<3%	<3%
Equivalent Input Noise (dB SPL)	<28	<28	<28	<28	<28	<28
(55-90 ANSI) (55-80 IEC) – Test Mode						
Attack Time (ms)	5	5	5	5	5	5
Release Time 0.1-s (ms)	5-35	5-55	5-25	5-55	5-25	5-55
Release Time 2.0-s (ms)	5-35	5-55	5-25	5-55	5-25	5-55
Induction Coil Sensitivity						
HFA SPLITS (dB SPL) (ansi 96)	90-103	NA	89-102	NA	NA	NA
MASL (dB SPL) (iec 118-1)	NA	63-88	NA	63-85	NA	NA
Battery Current (mA)	.79-.89	.79-.89	.80-1.17	.79-1.07	.80-.97	.79-.92
Idle (mA)	.77-.83	.77-.83	.78-.96	.78-.96	.78-.83	.78-.83
Estimated Battery Life for 16 hour day						
13 Zinc Air (days)	20-23	20-23	NA	NA	NA	NA
312 Zinc Air (days)	11-13	11-13	9-13	9-13	NA	NA
10A Zinc Air (days)	NA	NA	5-7	5-7	6-7	6-7



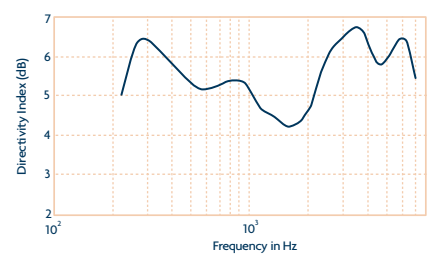
OSPL90 curves for the Power CE 120 and the highest standard matrix of the CE 113, CC 115, and the CIC 113.



Full On Gain curves for the Power CE 55 and the highest standard matrix of the CE 45 dB, CC 50 dB and the CIC 50 dB.



Induction Coil Sensitivity at Full On Gain for the CE matrix 120/50. Data obtained in RMS magnetic field strength of 31.6 mA/meter.



KEMAR Directivity Indices plotted across the frequency range for the Arista PDI CE. KEMAR DI Values: 500 Hz = 5.3, 1000 Hz = 5.2, 2000 Hz = 4.7, 4000 Hz = 6.3

Measurement Conditions and Recommendations

The data for 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.

All 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.