Endeavour Custom Digital Signal Processor

Superior digital signal processing featuring wide programmability with precision compression and expansion performance.

Endeavour PDI CE

Endeavour PDI CC

Endeavour CIC

Feature Summary:

WDRC and Output Compression Limiting with multiple intermediate settings, offered in a superior circuit.

Precision Directional Imaging utilizes advanced directional microphone technology to enhance speech understanding in noisy environments.

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

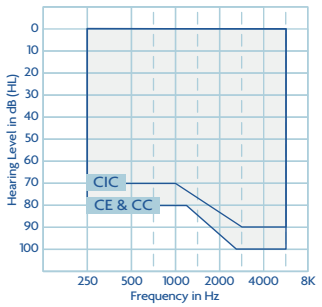
Programmable Indicator Tones for low battery and MultiMemory.

Standard Features:

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

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

Single and MultiMemory options for all styles with up to 3 fully programmable memories accessed via a push button.



Options:

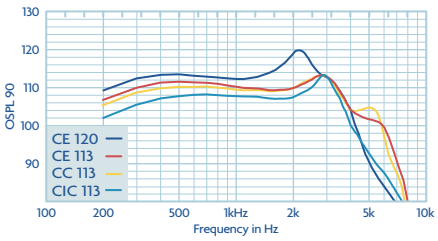
Precision Directional Imaging (PDI) technology available on MultiMemory CE, LP, HS, and CC styles and may be activated in any memory via PFS.

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.

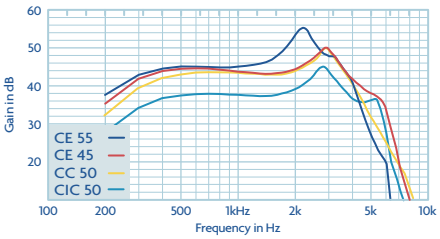
STARKEY

TECHNICAL SPECIFICATIONS

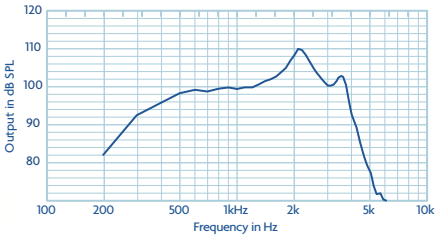
	FULL CONCHA (CE, LP)		*CANAL (HS, CC, SE)*		*TYMPANETTE (CIC)*	
	ANSI	IEC	ANSI	IEC	ANSI	IEC
Peak OSPL90 (dB SPL)	113-120	122-127	110-113	120-123	110-113	120-123
HFA OSPL90 (dB SPL)	111-116	NA	106-111	NA	106-111	NA
RTF OSPL90 (dB SPL)	NA	119-125	NA	114-120	NA	114-120
Peak Gain (dB SPL)	30-55	40-64	30-50	40-60	30-50	40-60
HFA Full On Gain (dB SPL)	24-49	NA	23-44	NA	23-44	NA
RTF Full On Gain (dB SPL)	NA	31-58	NA	30-52	NA	30-52
Frequency Range (kHz)	0.2-6.8	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)	24-39	24-50	23-34	23-45	23-34	23-45
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)	5-225	5-220	5-225	5-230	5-230	5-220
Release Time 2.0-s (ms)	5-325	5-325	5-335	5-330	5-335	5-325
Induction Coil Sensitivity						
HFA SPLITS (dB SPL) (ansi 96)	88-103	NA	87-98	NA	NA	NA
MASL (dB SPL) (iec 118-1)	NA	65-91	NA	64-85	NA	NA
Battery Current (mA)	.78-.90	.78-.90	.79-.90	.78-.93	.78-.91	.78-.92
Idle (mA)	.78-.83	.78-.83	.78-.88	.78-.88	.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	11-13	11-13	NA	NA
10A Zinc Air (days)	NA	NA	6-7	6-7	6-7	6-7



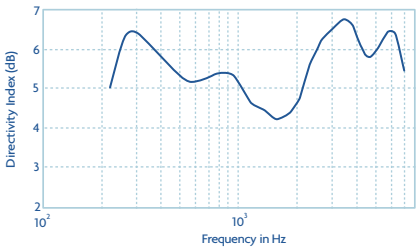
OSPL90 curves for the Power CE 120 and the highest standard matrix of the CE 113, CC 113, and the CIC 113.



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 Endeavour 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 Endeavour Digital are obtained and performance is expressed according to ANSI S3.22 (1996), Specifications of Hearing Aid Characteristics and IEC 118-7. Each custom instrument will be shipped with an accurate, individually, obtained Custom Data Sheet for that specific instrument, and all required ANSI measurements. The Starkey proprietary Real Time Analyzer comprises the basic test equipment. Hearing instruments are attached to the 2cm3 coupler with putty, and vents are sealed at the coupler. Data may be subject to change with product refinement.

Endeavour Digital 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. Because of the adaptive signal processing capabilities of Endeavour DSP, measurements taken with the hearing aid outside of Test Mode may result in data that does not reflect the performance of the hearing aid with real world stimuli.

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