

# J13 Endeavour Digital Signal Processor

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



*J13 Endeavour BTE with PDI MM*      *J13 Endeavour BTE MultiMemory*

## 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, available on the J13 Endeavour PDI MM.

**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.

**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.

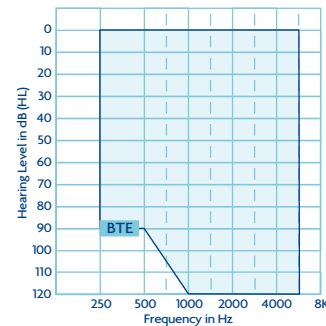
**Wireless FM and Direct Audio Input (DAI)** capable.

**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.

BTE Snap-On FACES available in 36 colors.

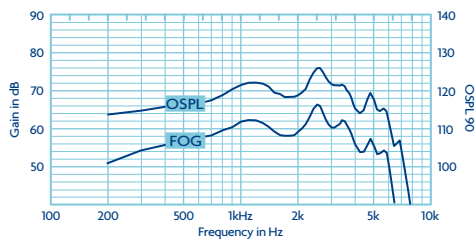
Direct Audio Input accessories.

Pediatric and filtered earhooks available.

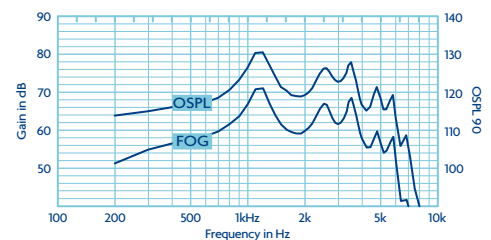


### J13 Endeavour Digital BTE

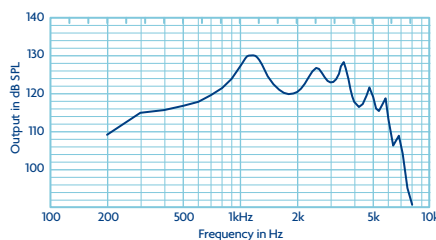
|   |               |            |
|---|---------------|------------|
| Peak OSPL90 (dB SPL)  | ANSI<br>130   | IEC<br>132 |
| HFA OSPL90 (dB SPL)   | 125           | NA         |
| RTF OSPL90 (dB SPL)   | NA            | 126        |
| Peak Gain (dB SPL)  | 70            | 73         |
| HFA Full On Gain (dB SPL)                                     | 64            | NA         |
| RTF Full On Gain (dB SPL)                                     | NA            | 65         |
| Frequency Range (Hz)  | 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)                   | 48            | 51         |
| Harmonic Distortion   |               |            |
| 500 Hz % max  | <3%           | <3%        |
| 800 Hz % max  | <3%           | <3%        |
| 1600 Hz % max   | <3%           | <3%        |
| Equivalent Input Noise (dB SPL)                               | <26           | <26        |
| (55-90 ANSI) (55-80 IEC) - test mode                          |               |            |
| Attack Time (MS)  | 5             | 5          |
| Release Time 0.1-s (MS)                                       | 160           | 470        |
| Release Time 2.0-s (MS)                                       | 260           | 570        |
| Induction Coil Sensitivity                                    |               |            |
| HFA SPLITS (ANSI 96) dB SPL                                   | 106           | NA         |
| MASL (IEC 118-1) dB SPL                                       | NA            | 95         |
| Battery Current (mA)  | 1.1           | 1.1        |
| Idle (mA)   | 0.9           | 0.9        |
| Estimated Battery Life for 16 hour day<br>13 Zinc Air Battery | 16            | 16         |



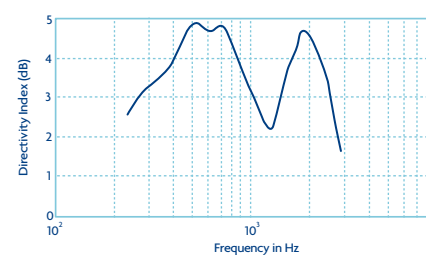
OSPL90 and Full On Gain curves for the J13 Endeavour BTE with the default filtered (white 680 ohm damper) earhook.



OSPL90 and Full On Gain curves for the J13 Endeavour BTE with the 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 J13 Endeavour PDI BTE. KEMAR DI Values: 500 Hz = 4.5, 1000 Hz = 4.1, 2000 Hz = 4.1, 4000 Hz = 1.3

#### Measurement Conditions and Recommendations

The data for J13 Endeavour are obtained and performance is expressed according to ANSI S3.22 (1996). Specifications of Hearing Aid Characteristics and IEC 118-0. The Starkey proprietary Real Time Analyzer comprises the basic test equipment. Data may be subject to change with product refinement.

J13 Endeavour 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 J13 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.

