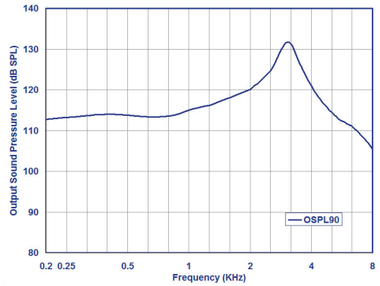
SeboTek® Voice-Q™ 510 PAC
Post Auricular Canal Hearing Instrument

Ear Simulation Data
CIC Coupler

Output Sound Pressure Level

Maximum
132 dB SPL

HFA-OSPL90
119 dB SPL

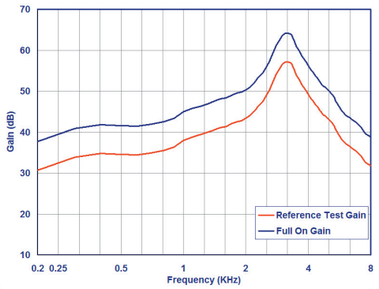


Acoustic Gain

Maximum
64 dB

HFA-FOG
50 dB

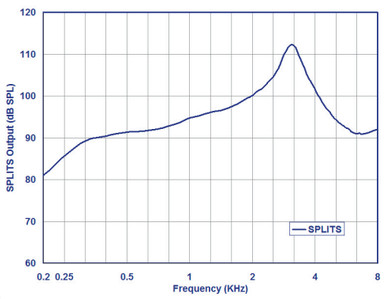
HFA-RTG
43 dB



SPLITS Telecoil Sensitivity

HFA-SPLITS
99 dB SPL

STS-SPLITS
-3 dB

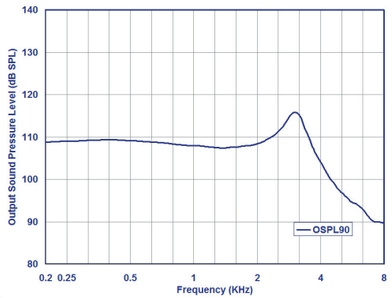


ANSI S3.22-1996
2cc Coupler

Output Sound Pressure Level

Maximum
117 dB SPL

HFA-OSPL90
110 dB SPL

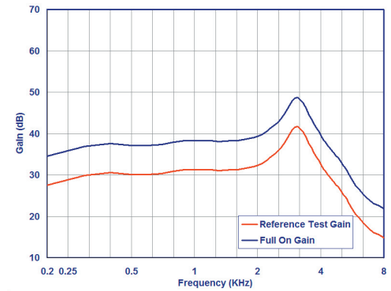


Acoustic Gain

Maximum
48 dB

HFA-FOG
40 dB

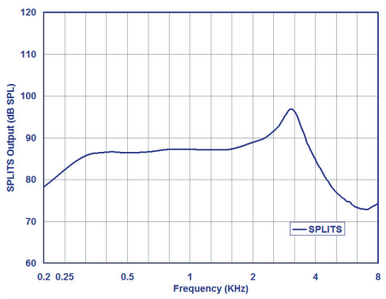
HFA-RTG
33 dB



SPLITS Telecoil Sensitivity

HFA-SPLITS
90 dB SPL

STS-SPLITS
-3 dB



2488 E. 81st St., Suite 2000
Tulsa, Oklahoma 74137-4294 USA

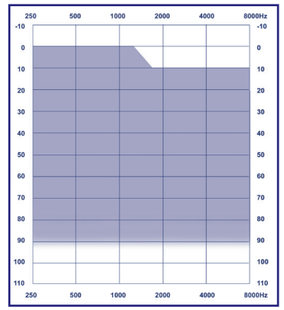
SEBOTEK®

1-800-388-9041 • 1-918-388-9000
www.SeboTek.com

BKT205SPEC510vAP8

CE 0470

SeboTek® Voice-Q™ 510 PAC
Post Auricular Canal Hearing Instrument



System Features

- **Premium digital signal processing**
- **High fidelity DSP for extended bandwidth up to 14,000 Hz**
- **Discreet instrument for mild to severe losses - all audiometric configurations (flat, sloping, ski slope, reverse slope, cookie bite)**
- **Deep canal fit**
- **Multiple memories**
- **Patented system design eliminates feedback and occlusion effect**

Voice-Q™ 510 Sound Processor

1. Microphone Protective Hood
2. Moisture-resistant Memory Switch
3. Link Connector
4. Battery Door

Audio Processing Features

- 6-band parametric equalizer
- Multi-channel WDRC
- High fidelity expanded acoustic response
- Noise manager
- Expansion: programmable multichannel kneepoints
- Adjustable compression ratio 1:1 to infinity
- Programmable crossover control
- Feedback manager
- Output limits: programmable
- Expansion kneepoint, adjustable from 30-60 dB in each channel
- Autofit: based on a proprietary algorithm
- Modification wizard (for program adjustments)
- Telecoil: programmable

User Features

- Memory beeps: programmable frequencies
- #13 battery: up to four weeks of battery life
- Low-battery indicator: programmable
- Lock-tight battery door with snap-lock closure
- Push-button memory switch
  - Moisture and dust resistant
  - Light-touch activation
  - User-friendly, easy-grip textured design
  - Easy access location

Technical Features

- 32 KHz sampling rate
- 2 Sigma/Delta AD converters
  - 20-bit resolution
  - 2.048 MHz clock rate
- Digital Power Amplifier: 32 KHz, 20 bit audio signal
- 0.18 micron chip technology
- 95 dB input dynamic range
- 83 dB output dynamic range
- Headroom expander circuitry

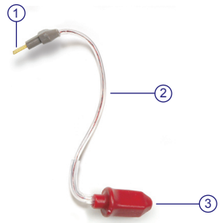
Design Features

- Moisture-resistant, solid-state, wire-free processor design
- State-of-the-art technology design and manufacturing processes
- Environment resistant, solid connection, flex connect programming assembly
- Environment resistant, solid connection power contacts
- Lightweight, ergonomically designed case
- Titanium case screws
- Compatible with quality cell phones
- Compatible with neck loop and FM systems

SEBOTEK®

SeboTek® Voice-Q™ 510 PAC
Post Auricular Canal Hearing Instrument

Speaker Link

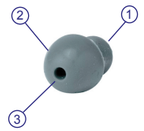


1. Processor connector
2. Environmentally-encapsulated wire
3. Protected speaker

Speaker Link

- Hermetically-sealed wire blocks moisture/residue transfer
- Acoustically-transparent speaker housing
- Highly resistant to moisture and dust
- High-strength sheathing withstands aggressive handling
- Shock resistant
- Minimizes cerumen-related effects
- Environmentally resistant
- Lock-tight, easy-connect/disconnect design
- Compatible with all SeboTek Voice-Q™ digital processors

Ultra-Soft Tip

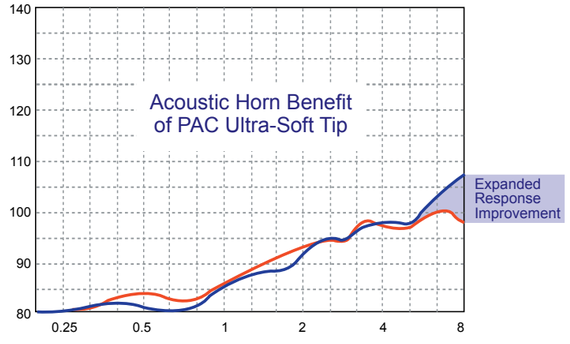


1. Speaker collar
2. Mushroom tip
3. Acoustically-designed horn

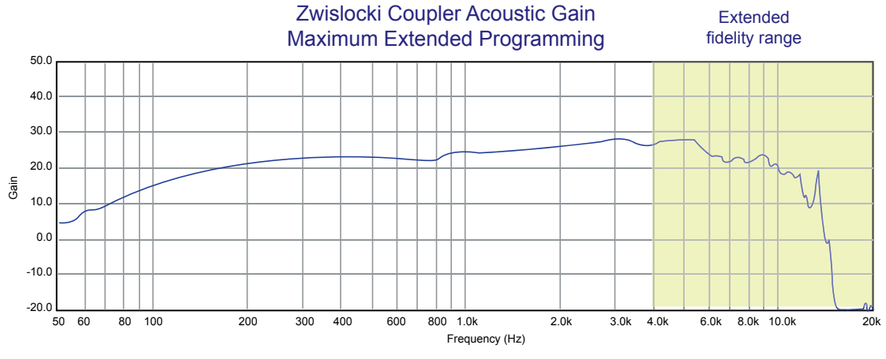
Ultra-Soft Tip

- Soft-touch, medical-grade, hypoallergenic silicone construction
- Horn design maximizes acoustic effect
- Designed to navigate varying canal geometries
- Consistently positions speaker port away from canal wall
- Extends cerumen-control capability provided by Speaker Link
- Compatible with all SeboTek PAC Speaker Links

Response improvement with PAC Hearing System fully assembled and tip applied.



50dB input, full-on gain



SeboTek® Voice-Q™ 510 PAC
Post Auricular Canal Hearing Instrument

*Technical Specifications**

Specification	Program	CIC**	2cc
Standard			ANSI S3.22 1996
Acoustic Gain (50 dB SPL input)	Maximum		
Maximum		64 dB	48 dB
HFA full-on gain		50 dB	40 dB
RTG		43 dB	33 dB
OSPL90 (90 dB SPL input)	Maximum		
Maximum		132 dB SPL	117 dB SPL
HFA- OSPL90		120 dB SPL	110 dB SPL
Frequency Range	Maximum	<200 to >8000 Hz	<200 to >8000 Hz
Total Harmonic Distortion	Maximum		
500 Hz		1%	1%
800 Hz		1%	1%
1600 Hz		2%	2%
Current Drain			
Reference Test		0.8 mA	0.8 mA
Maximum		1.2 mA	1.2 mA
Equivalent Input Noise	Maximum	17 dB	15 dB
Telecoil Sensitivity	Maximum		
31.6 mA/m Wand @ 3000 Hz		117 dB SPL	104 dB SPL
31.6 mA/m Wand @ 1600 Hz		107 dB SPL	96 dB SPL
HFA-SPLITS		99 dB SPL	90 dB SPL
STS-SPLITS		-3 dB SPL	-3 dB SPL
Compression	Maximum		
Attack time		5 mS	5 mS
Recovery time		50 mS	50 mS

*Testing conducted with PAC system fully assembled - medium speaker link, SebоTek 2cc and CIC couplers, and 10mm tip.

** CIC test protocol is recommended to more accurately demonstrate system performance.

Software/Hardware

- Pro-VES™ Software version 4.3 or later
- Programmable with PC (IBM Compatible) and Hi-PRO interface
- Stand-alone software available
- Programming cables - CS64
- Programming strips - CS64 (4 pin)

Processor Weight	
Processor only	1.2g
Fully assembled with battery	2.8g