Audio Service

BTE HEARING SYSTEMS

B SP 7

Tech Level	16	12	8	6	4	3	tune

Battery: 675
Amplification: 82 dB (Earhook)

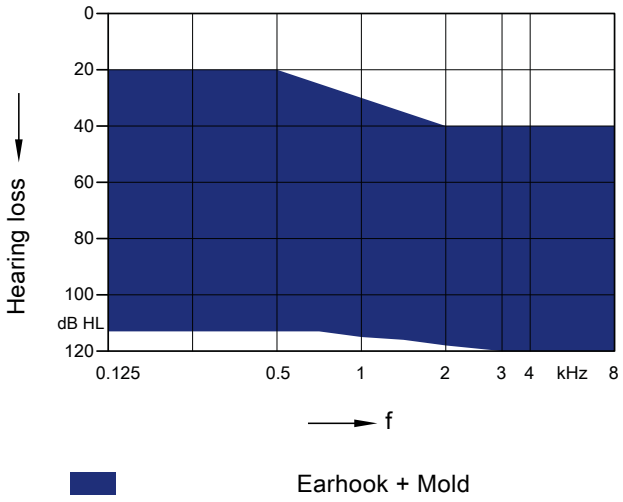
Data sheet also applicable for B SP D 7

B SP 7 | Technical Data

Type	Earhook	
	2 ccm coupler	Ear simulator
Output sound pressure level		
OSPL90 at 1.6 kHz	–	134 dB SPL
maximum OSPL90	140 dB SPL	143 dB SPL
HFA OSPL90	132 dB SPL	–
Gain		
FOG at 1.6 kHz	–	77 dB
maximum FOG	82 dB	85 dB
HFA FOG	74 dB	–
Reference test gain	55 dB	59 dB
Frequency, noise and directivity		
Frequency range	100 – 5300 Hz	100 – 5400 Hz
Equivalent input noise	16 dB SPL	17 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	5 / 1 / 1 / 1 %	5 / 1 / 1 / – %
Tinnitus Function broadband	94 dB SPL	–
AI-DI	3.8 dB	
Latency	< 15 ms	
Inductive coil sensitivity		
MASL (1 mA/m) at 1.6 kHz	–	105 dB SPL
Full-on HFA-SPLIV (10mA/m)	123 dB SPL	–
HFA SPLITS (left/right)	114 / 114 dB SPL	–
RSETS (left/right)	-1 / -1 dB	–
HFA SPLIV	115 dB SPL	–
Battery		
Battery voltage	1.3 V	
Battery current drain	2.2 mA	1.8 mA
Battery runtime (without streaming)	up to 277 h	
Battery runtime (incl. 60 h streaming)	up to 217 h	
Cellphone Compatibility		
Microphone mode	0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode	0.65 – 0.96 GHz 1.4 – 2.7 GHz	

Please find additional information to the values on page “Further information”.

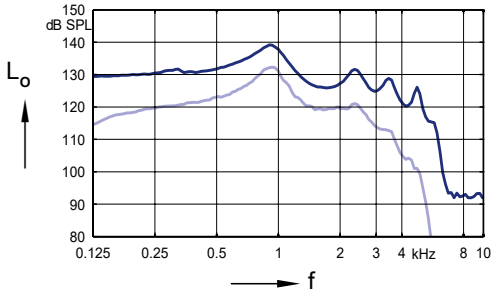
B SP 7 | Fitting Range



Earhook + Mold

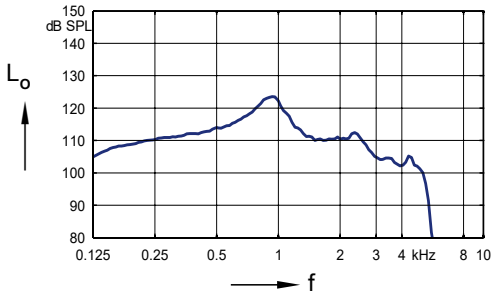
Earhook | Basic Data

2 ccm coupler



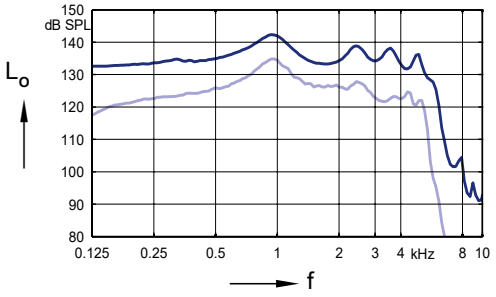
Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



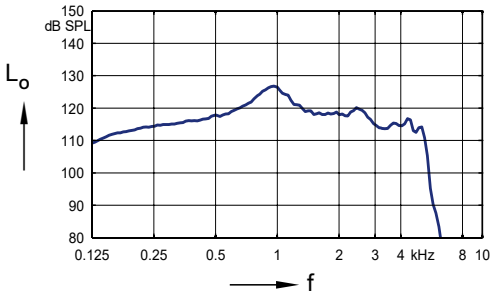
Frequency response (L_I = 60 dB)

Ear simulator



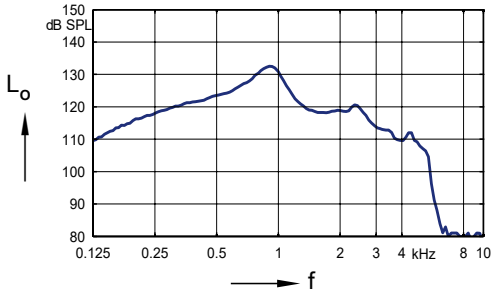
Max. Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)

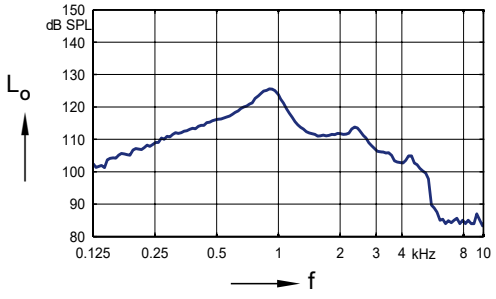


Basic acoustic response (L_I = 60 dB)

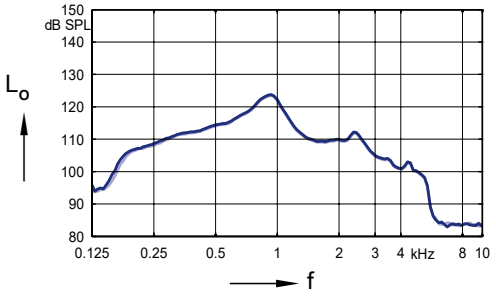
Inductive response



Inductive response (H = 10 mA/m)



SPLIV curve (H = 31.6 mA/m)



SPLITS curve left (H = 31.6 mA/m)

SPLITS curve right (H = 31.6 mA/m)

B SP 7 | Features and Accessories

Features	TL 16	TL 12	TL 8	TL 6	TL 4	TL 3
Ingress Protection Rating	IP68	IP68	IP68	IP68	IP68	IP68
Channels / Controls / Programs	34 / 16 / 6	32 / 16 / 6	24 / 12 / 6	16 / 8 / 4	16 / 8 / 4	12 / 6 / 4
First Fit 48 channels	●	●	●	●	●	●
Comformatic 2.0	HiRes	HiRes	HiRes	HiRes	HiRes	HiRes
Occlumatic 2.0	●	●	●	—	—	—
Multi-Track Processing	●	●	●	●	●	●
Direct Audio Streaming	Made for iPhone / Android version 10 or higher (ASHA)	Made for iPhone / Android version 10 or higher (ASHA)	Made for iPhone / Android version 10 or higher (ASHA)	Made for iPhone / Android version 10 or higher (ASHA)	Made for iPhone / Android version 10 or higher (ASHA)	—
Auto Volume	●	●	●	●	●	—
Binaural Synchronization	●	●	●	●	●	●
Directionality	Automatic adaptive, Panorama, Front / Back / Left / Right automatic & manual, Advanced Narrow	Automatic adaptive, Panorama, Front / Back automatic & manual, Left / Right manual, Advanced Narrow	Automatic adaptive, Panorama, Advanced Narrow	Automatic adaptive, Panorama	Automatic adaptive, Panorama	Automatic Directional static
Noise Reduction	Noise Management, Impulse suppressor, Directional	Noise Management, Impulse suppressor , Directional	Noise Management, Impulse suppressor	Noise Management, Impulse suppressor	Noise Management	Noise Management
Wind Noise Reduction	●	●	●	●	—	—
EchoClear Auto	●	—	—	—	—	—
EchoClear / Dereverberation	●	●	—	—	—	—
HiFi functionality / Selective frequency compression	— / ●	— / ●	— / ●	— / ●	— / ●	— / —
Music (presets)	3	3	1	1	—	—
Tinnitus	Sound Therapy	Sound Therapy	Sound Therapy	Sound Therapy	—	—
2earPhone	●	●	●	●	●	—
Acclimatic / Data Logging	● / ●	● / ●	● / ●	● / ●	● / ●	— / ●
T-Coil	●	●	●	●	●	●
Battery door – tamper proof	○	○	○	○	○	○
Battery size	675	675	675	675	675	675

● available — not available ○ optional

B SP 7 | Features and Accessories

	TL 16	TL 12	TL 8	TL 6	TL 4	TL 3
Accessories						
Smart Key	O	O	O	O	O	O
Smart Transmitter 2,4	O	O	O	O	O	—
Smart Mic	O	O	O	O	O	—
Audio Service App	O	O	O	O	O	O
Noahlink Wireless	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
Small earhook	O	O	O	O	O	O
CROS R Li 7	O	O	O	O	O	—
CROS R S 7	O	O	O	O	O	—
CROS SR Li 7	—	—	—	—	—	—

— not available O optional

B SP 7 | Further information

Abbreviations

The following abbreviations are used in this data sheet:

SPL	Sound Pressure Level
OSPL	Output Sound Pressure Level
HFA	High Frequency Average
FOG	Full-On Gain
MASL	Magneto Acoustical Sensitivity Level
SPLITS	Coupler SPL for an Inductive Telephone Simulator
RSETS	Relative Simulated Equivalent Telephone Sensitivity
SPLIV	SPL In a Vertical magnetic field
AI-DI	Articulation Index - Directivity Index
IRIL	Input Related Interference Level
RTF	Reference Test Frequency
ASHA	Audio Streaming for Hearing Aids

Standards and additional information

- All measurements with the 2 ccm coupler were performed according to EN IEC 60118-0:2024 and ANSI S3.22:2014 if applicable.
- All measurements with an ear simulator were performed according to EN 60118-0:1993 + A1:1994 and to DIN 45605 (frequency range) if applicable.
- All Cellphone Compatibility measurements were performed according to EN IEC 60118-13:2020 and ANSI C63.19:2019.
- Cellphone Compatibility definition: It is expected that the hearing aid user can effectively use a compliant wireless device held in a talking position at the ear. Maximum achievable Cellphone Compatibility range: 0.65 – 0.96 GHz and 1.4 – 2.7 GHz.
- Curves and figures representing FOG are measured with 20 dB reduction and 70 dB SPL input level.
- Figures representing Equivalent Input Noise incorporate a moderate expansion.
- Tinnitus noiser measurement conditions: all tinnitus single frequency sliders in max position, master volume slider in default position (0 dB) and local volume control in default position.
- Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil only.
- The current consumption is measured in reference test setting (RTS) according to the applicable standards. Due to the settling behaviour of hearing aids supporting RF (Radio Frequency), the battery current is measured 3 minutes after turning on (note: no pairing).
- The battery runtime is based on first fit settings using 80 % of the fitting range and an ISTS (International Speech Test Signal) input signal at 65 dB SPL (note: pairing established). The actual battery runtime is determined by battery quality, hearing loss, sound environment, usage and activated feature set. Regarding RF usage, Bluetooth audio streaming from phone to hearing aid and from hearing aid to phone are considered.
- The following acoustic connections / ear pieces were used:
  - Earhook

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Subject to change
without prior notice

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases and are subject to change without prior notice. The required features should therefore be specified in each individual case at the time of conclusion of the respective contract.