

TH 7 ITE / Canal / CIC / IIC

Premium | Advanced | Standard

Data Sheet

ITE	Canal	CIC	IIC
118/55 • 55 dB / 118 dB SPL (2 ccm coupler) • 65 dB / 127 dB SPL (Ear simulator)	113/50 • 50 dB / 113 dB SPL (2 ccm coupler) • 62 dB / 124 dB SPL (Ear simulator)	113/50 • 50 dB / 113 dB SPL (2 ccm coupler) • 60 dB / 124 dB SPL (Ear simulator)	113/50 • 50 dB / 113 dB SPL (2 ccm coupler) • 60 dB / 124 dB SPL (Ear simulator)
124/60 • 60 dB / 124 dB SPL (2 ccm coupler) • 70 dB / 133 dB SPL (Ear simulator)	118/55 • 55 dB / 118 dB SPL (2 ccm coupler) • 65 dB / 127 dB SPL (Ear simulator)	118/55 • 55 dB / 118 dB SPL (2 ccm coupler) • 65 dB / 127 dB SPL (Ear simulator)	
	124/60 • 60 dB / 124 dB SPL (2 ccm coupler) • 70 dB / 133 dB SPL (Ear simulator)	124/60 • 60 dB / 124 dB SPL (2 ccm coupler) • 70 dB / 133 dB SPL (Ear simulator)	

TH 7 ITE | Technical Data

Type		118/55		124/60	
		2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level					
OSPL90 at 1.6 kHz		—	118 dB SPL	—	126 dB SPL
Maximum OSPL90		118 dB SPL	127 dB SPL	124 dB SPL	133 dB SPL
HFA OSPL90		112 dB SPL	—	118 dB SPL	—
Full-on gain					
FOG at 1.6 kHz		—	57 dB	—	62 dB
Maximum FOG		55 dB	65 dB	60 dB	70 dB
HFA FOG		49 dB	—	56 dB	—
Reference test gain		35 dB	43 dB	42 dB	50 dB
Frequency, noise and directivity					
Frequency range	Premium	100–8300 Hz	140–8700 Hz	100–6700 Hz	100–7100 Hz
	Advanced	100–8300 Hz	140–8700 Hz	100–6700 Hz	100–7100 Hz
	Standard	100–8200 Hz	140–8200 Hz	100–6700 Hz	100–7100 Hz
Equivalent input noise		21 dB SPL	22 dB SPL	21 dB SPL	22 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz		1 / 1 / 1 / 1 %	1 / 2 / 2 / — %	2 / 3 / 1 / 1 %	4 / 8 / 2 / — %
Tinnitus noiser broadband		74 dB SPL	—	80 dB SPL	—
AI-DI		4.6 dB		4.6 dB	
Latency		< 15 ms		< 15 ms	
Inductive coil sensitivity					
MASL (1 mA/m) at 1.6 kHz		—	88 dB SPL	—	93 dB SPL
Full-on HFA-SPLIV (10 mA/m)		99 dB SPL	—	106 dB SPL	—
HFA SPLITS (left/right)		97 / 97 dB SPL	—	104 / 104 dB SPL	—
RSETS (left/right)		2 / 2 dB	—	2 / 3 dB	—
HFA SPLIV		94 dB SPL	—	101 dB SPL	—
Battery					
Battery voltage		1.3 V		1.3 V	
Battery current drain		1.0 mA	1.0 mA	1.0 mA	1.0 mA
Battery runtime		up to 115 h		up to 116 h	
Cellphone compatibility					
Microphone mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	

— not applicable

Refer to section “Further information” for additional information on the values.

TH 7 Canal | DIRECTIONAL | Technical Data

Type		113/50		118/55		124/60	
		2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level							
OSPL90 at 1.6 kHz		—	117 dB SPL	—	118 dB SPL	—	126 dB SPL
Maximum OSPL90		113 dB SPL	124 dB SPL	118 dB SPL	127 dB SPL	124 dB SPL	133 dB SPL
HFA OSPL90		108 dB SPL	—	112 dB SPL	—	119 dB SPL	—
Full-on gain							
FOG at 1.6 kHz		—	53 dB	—	55 dB	—	63 dB
Maximum FOG		50 dB	62 dB	55 dB	65 dB	60 dB	70 dB
HFA FOG		45 dB	—	48 dB	—	55 dB	—
Reference test gain		31 dB	42 dB	35 dB	44 dB	42 dB	50 dB
Frequency, noise and directivity							
Frequency range	Premium	100–9500 Hz	120–9900 Hz	100–8300 Hz	120–9300 Hz	100–6600 Hz	100–6700 Hz
	Advanced	100–8700 Hz	120–8700 Hz	100–8300 Hz	120–8700 Hz	100–6600 Hz	100–6700 Hz
	Standard	100–8200 Hz	120–8200 Hz	100–8200 Hz	120–8200 Hz	100–6600 Hz	100–6700 Hz
Equivalent input noise		21 dB SPL	23 dB SPL	19 dB SPL	22 dB SPL	19 dB SPL	20 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz		2 / 2 / 2 / 1 %	3 / 4 / 6 / — %	1 / 1 / 1 / 1 %	2 / 2 / 2 / — %	2 / 3 / 1 / 1 %	3 / 6 / 2 / — %
Tinnitus noiser broadband		70 dB SPL	—	76 dB SPL	—	80 dB SPL	—
AI-DI		5.0 dB		5.0 dB		5.0 dB	
Latency		< 15 ms		< 15 ms		< 15 ms	
Inductive coil sensitivity							
MASL (1 mA/m) at 1.6 kHz		—	75 dB SPL	—	87 dB SPL	—	94 dB SPL
Full-on HFA-SPLIV (10 mA/m)		87 dB SPL	—	100 dB SPL	—	107 dB SPL	—
HFA SPLITS (left/right)		90 / 90 dB SPL	—	98 / 98 dB SPL	—	105 / 105 dB SPL	—
RSETS (left/right)		-1 / -1 dB	—	3 / 3 dB	—	3 / 3 dB	—
HFA SPLIV		91 dB SPL	—	94 dB SPL	—	103 dB SPL	—
Battery							
Battery voltage		1.3 V		1.3 V		1.3 V	
Battery current drain		1.0 mA	1.0 mA	1.1 mA	1.0 mA	1.1 mA	1.1 mA
Battery runtime		up to 104 h		up to 117 h		up to 108 h	
Cellphone compatibility							
Microphone mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	

— not applicable

Refer to section “Further information” for additional information on the values.

TH 7 Canal | OMNI | Technical Data

Type		113/50		118/55		124/60	
		2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level							
OSPL90 at 1.6 kHz		—	117 dB SPL	—	119 dB SPL	—	125 dB SPL
Maximum OSPL90		113 dB SPL	124 dB SPL	118 dB SPL	127 dB SPL	124 dB SPL	133 dB SPL
HFA OSPL90		109 dB SPL	—	112 dB SPL	—	118 dB SPL	—
Full-on gain							
FOG at 1.6 kHz		—	55 dB	—	57 dB	—	62 dB
Maximum FOG		50 dB	61 dB	55 dB	65 dB	60 dB	70 dB
HFA FOG		46 dB	—	50 dB	—	55 dB	—
Reference test gain		32 dB	43 dB	35 dB	44 dB	42 dB	50 dB
Frequency, noise and directivity							
Frequency range	Premium	100–9300 Hz	110–9600 Hz	100–8800 Hz	100–9900 Hz	100–6800 Hz	100–7100 Hz
	Advanced	100–8700 Hz	110–8700 Hz	100–8700 Hz	100–8700 Hz	100–6800 Hz	100–7100 Hz
	Standard	100–8200 Hz	110–8200 Hz	100–8200 Hz	100–8200 Hz	100–6800 Hz	100–7100 Hz
Equivalent input noise		17 dB SPL	18 dB SPL	17 dB SPL	18 dB SPL	18 dB SPL	17 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz		3 / 3 / 2 / 1 %	4 / 5 / 4 / — %	1 / 2 / 1 / 1 %	2 / 3 / 2 / — %	2 / 2 / 1 / 1 %	3 / 4 / 3 / — %
Tinnitus noiser broadband		70 dB SPL	—	75 dB SPL	—	80 dB SPL	—
AI-DI		—		—		—	
Latency		< 15 ms		< 15 ms		< 15 ms	
Inductive coil sensitivity							
MASL (1 mA/m) at 1.6 kHz		—	74 dB SPL	—	87 dB SPL	—	92 dB SPL
Full-on HFA-SPLIV (10 mA/m)		85 dB SPL	—	101 dB SPL	—	105 dB SPL	—
HFA SPLITS (left/right)		91 / 91 dB SPL	—	95 / 95 dB SPL	—	102 / 102 dB SPL	—
RSETS (left/right)		0 / 0 dB	—	0 / 0 dB	—	0 / 0 dB	—
HFA SPLIV		91 dB SPL	—	94 dB SPL	—	101 dB SPL	—
Battery							
Battery voltage		1.3 V		1.3 V		1.3 V	
Battery current drain		1.0 mA	0.9 mA	1.0 mA	1.0 mA	1.1 mA	0.9 mA
Battery runtime		up to 116 h		up to 135 h		up to 127 h	
Cellphone compatibility							
Microphone mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	

— not applicable

Refer to section “Further information” for additional information on the values.

TH 7 CIC | Technical Data

Type		113/50		118/55		124/60	
		2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level							
OSPL90 at 1.6 kHz		—	116 dB SPL	—	117 dB SPL	—	126 dB SPL
Maximum OSPL90		113 dB SPL	124 dB SPL	118 dB SPL	127 dB SPL	124 dB SPL	133 dB SPL
HFA OSPL90		107 dB SPL	—	109 dB SPL	—	118 dB SPL	—
Full-on gain							
FOG at 1.6 kHz		—	52 dB	—	57 dB	—	65 dB
Maximum FOG		50 dB	60 dB	55 dB	65 dB	60 dB	70 dB
HFA FOG		45 dB	—	50 dB	—	57 dB	—
Reference test gain		30 dB	41 dB	32 dB	42 dB	42 dB	51 dB
Frequency, noise and directivity							
Frequency range	Premium	100–10600 Hz	100–10600 Hz	100–9500 Hz	110–10600 Hz	100–7800 Hz	100–8900 Hz
	Advanced	100–8700 Hz	100–8700 Hz	100–8700 Hz	110–8700 Hz	100–7800 Hz	100–8700 Hz
	Standard	100–8200 Hz	100–8200 Hz	100–8200 Hz	110–8200 Hz	100–7800 Hz	100–8200 Hz
Equivalent input noise		18 dB SPL	25 dB SPL	18 dB SPL	19 dB SPL	18 dB SPL	18 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz		2 / 3 / 2 / 1 %	3 / 5 / 5 / — %	1 / 1 / 1 / 1 %	2 / 2 / 2 / — %	1 / 3 / 1 / 1 %	2 / 6 / 2 / — %
Tinnitus noiser broadband		66 dB SPL	—	74 dB SPL	—	78 dB SPL	—
AI-DI		—		—		—	
Latency		< 15 ms		< 15 ms		< 15 ms	
Inductive coil sensitivity							
MASL (1 mA/m) at 1.6 kHz		—	—	—	—	—	—
Full-on HFA-SPLIV (10 mA/m)		—	—	—	—	—	—
HFA SPLITS (left/right)		—	—	—	—	—	—
RSETS (left/right)		—	—	—	—	—	—
HFA SPLIV		—	—	—	—	—	—
Battery							
Battery voltage		1.3 V		1.3 V		1.3 V	
Battery current drain		1.0 mA	1.0 mA	1.0 mA	1.0 mA	1.0 mA	1.0 mA
Battery runtime (cell zinc air)		up to 75 h		up to 75 h		up to 75 h	
Cellphone compatibility							
Microphone mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz		0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode		—		—		—	

— not applicable

Refer to section “Further information” for additional information on the values.

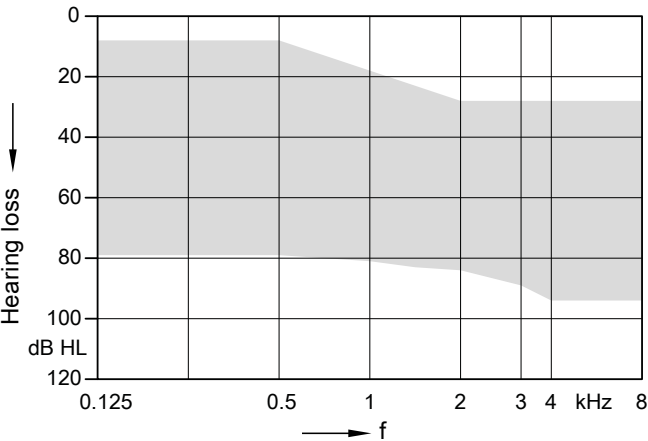
TH 7 IIC | Technical Data

Type		113/50	
		2 ccm coupler	Ear simulator
Output sound pressure level			
OSPL90 at 1.6 kHz		—	117 dB SPL
Maximum OSPL90		113 dB SPL	124 dB SPL
HFA OSPL90		108 dB SPL	—
Full-on gain			
FOG at 1.6 kHz		—	50 dB
Maximum FOG		50 dB	60 dB
HFA FOG		44 dB	—
Reference test gain		31 dB	42 dB
Frequency, noise and directivity			
Frequency range	Premium Advanced Standard	100–9500 Hz 100–8700 Hz 100–8200 Hz	100–10600 Hz 100– 8700 Hz 100– 8200 Hz
Equivalent input noise		21 dB SPL	23 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz		3 / 3 / 2 / 1 %	4 / 6 / 5 / — %
Tinnitus noiser broadband		67 dB SPL	—
AI-DI		—	
Latency		< 15 ms	
Inductive coil sensitivity			
MASL (1 mA/m) at 1.6 kHz		—	—
Full-on HFA-SPLIV (10 mA/m)		—	—
HFA SPLITS (left/right)		—	—
RSETS (left/right)		—	—
HFA SPLIV		—	—
Battery			
Battery voltage		1.3 V	
Battery current drain		1.0 mA	1.0 mA
Battery runtime (cell zinc air)		up to 75 h	
Cellphone compatibility			
Microphone mode		0.65 – 0.96 GHz 1.4 – 2.7 GHz	
Telecoil mode		—	
— not applicable			

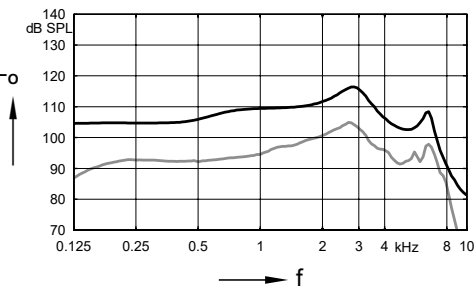
Refer to section “Further information” for additional information on the values.

TH 7 ITE | Basic Data

118/55

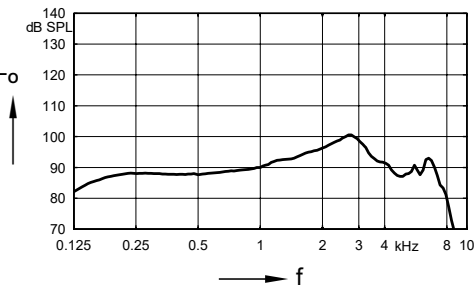


2 ccm coupler



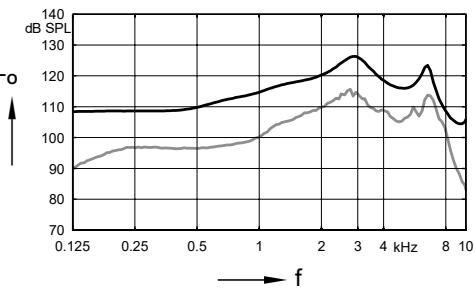
Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)



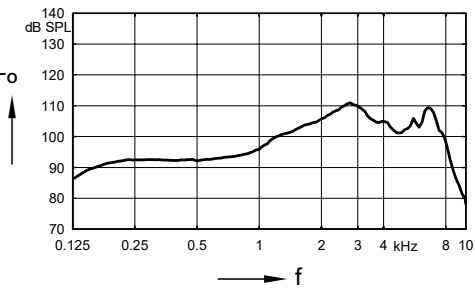
Frequency
response
($L_i = 60$ dB)

Ear simulator



Max. Output
sound pressure
level
($L_i = 90$ dB)

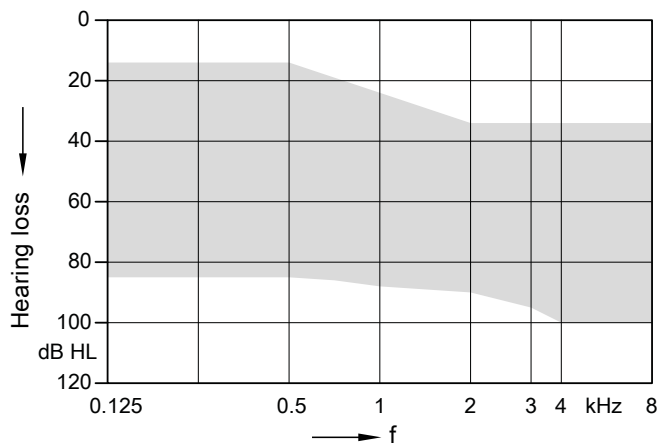
Full-on gain
($L_i = 50$ dB)



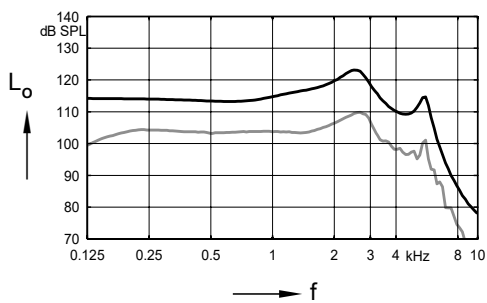
Basic acoustic
response
($L_i = 60$ dB)

TH 7 ITE | Basic Data

124/60

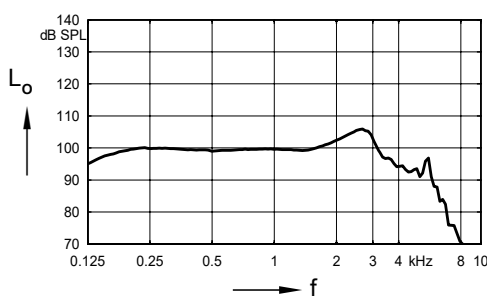


2 ccm coupler



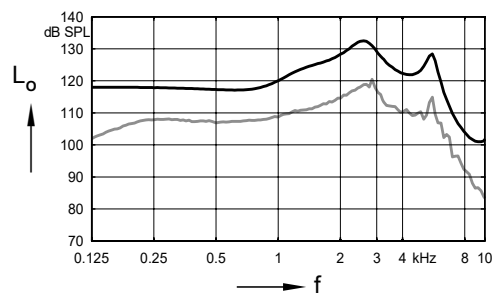
Max. Output sound pressure level ($L_i = 90$ dB)

Full-on gain ($L_i = 50$ dB)



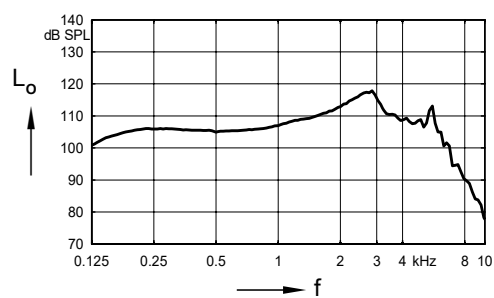
Frequency response ($L_i = 60$ dB)

Ear simulator



Max. Output sound pressure level ($L_i = 90$ dB)

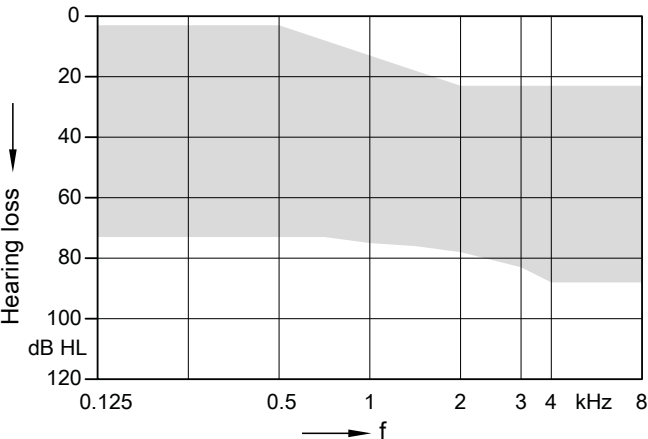
Full-on gain ($L_i = 50$ dB)



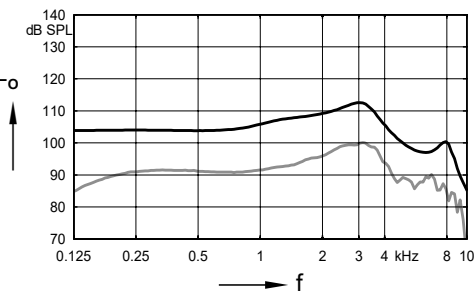
Basic acoustic response ($L_i = 60$ dB)

TH 7 Canal | DIRECTIONAL | Basic Data

113/50



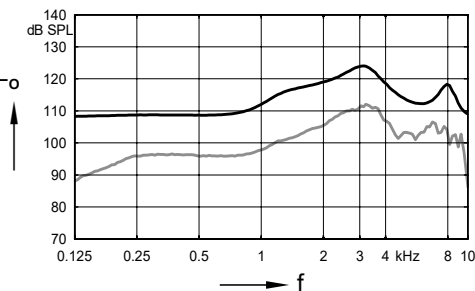
2 ccm coupler



Max. Output
sound pressure
level
($L_i = 90$ dB)

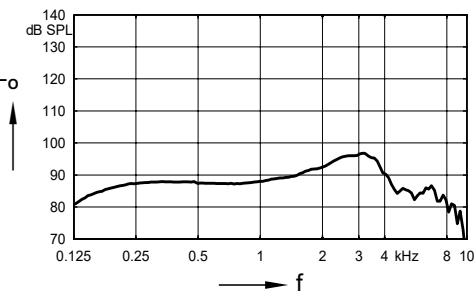
Full-on gain
($L_i = 50$ dB)

Ear simulator

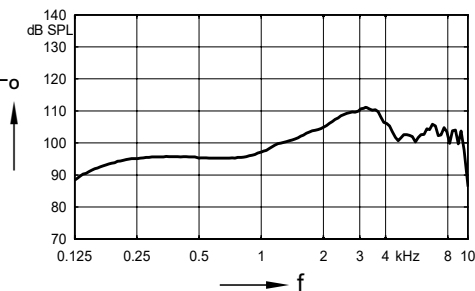


Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)



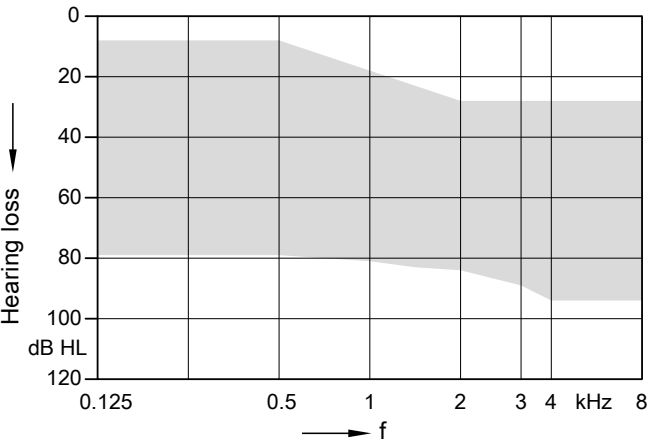
Frequency
response
($L_i = 60$ dB)



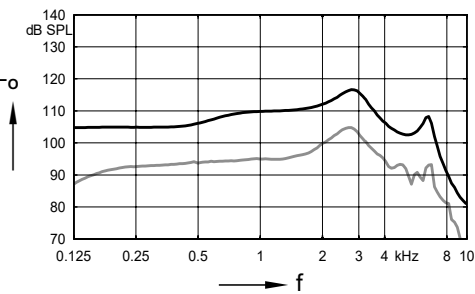
Basic acoustic
response
($L_i = 60$ dB)

TH 7 Canal | DIRECTIONAL | Basic Data

118/55



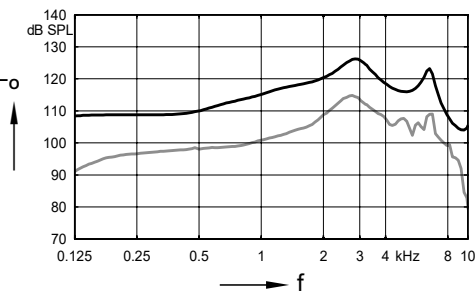
2 ccm coupler



Max. Output sound pressure level ($L_i = 90$ dB)

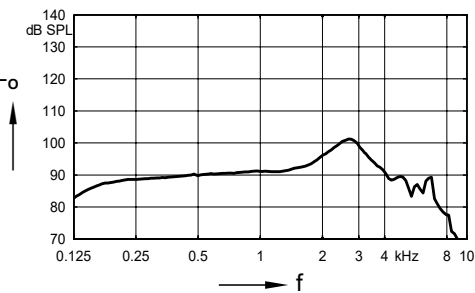
Full-on gain ($L_i = 50$ dB)

Ear simulator

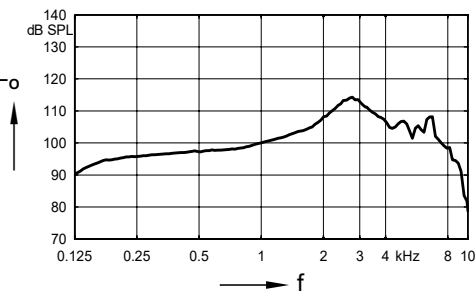


Max. Output sound pressure level ($L_i = 90$ dB)

Full-on gain ($L_i = 50$ dB)



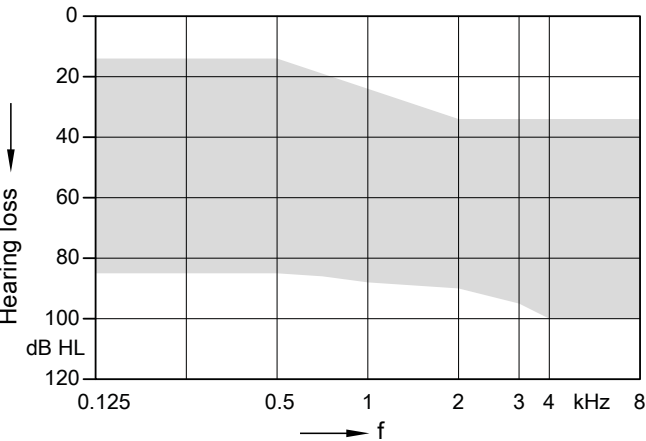
Frequency response ($L_i = 60$ dB)



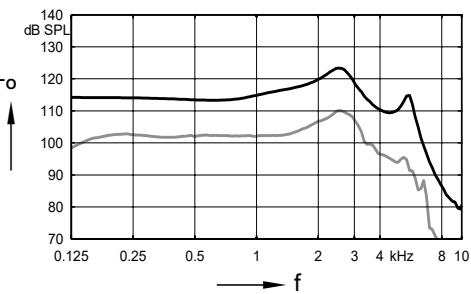
Basic acoustic response ($L_i = 60$ dB)

TH 7 Canal | DIRECTIONAL | Basic Data

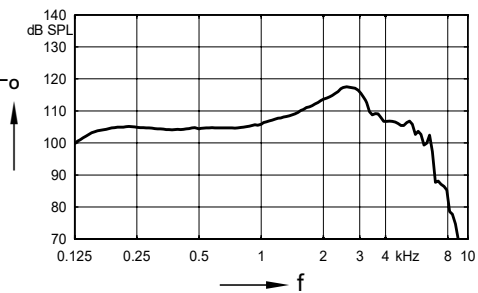
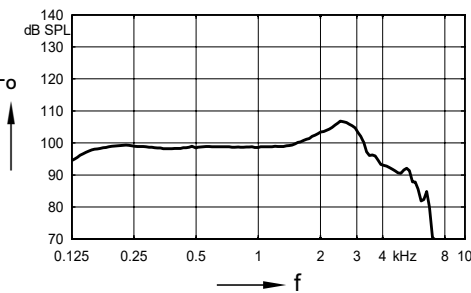
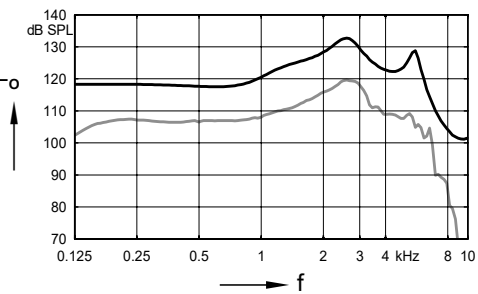
124/60



2 ccm coupler

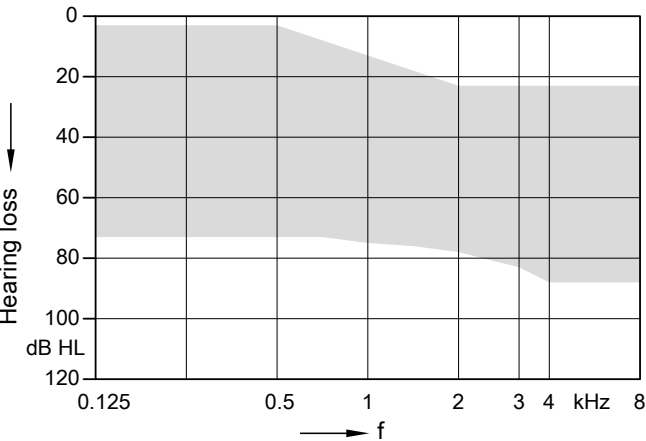


Ear simulator

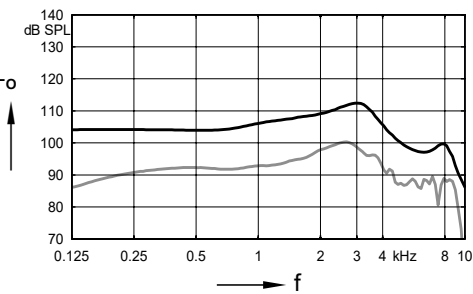


TH 7 Canal | OMNI | Basic Data

113/50

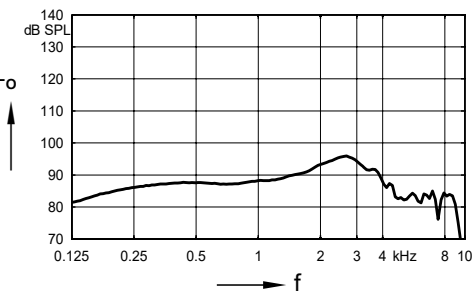


2 ccm coupler



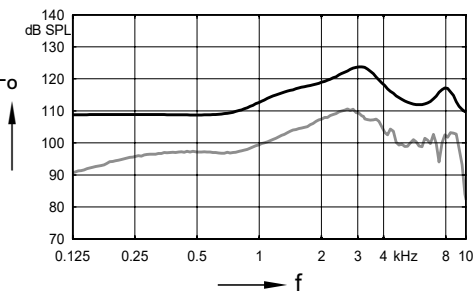
Max. Output
sound pressure
level
(L₁ = 90 dB)

Full-on gain
(L₁ = 50 dB)



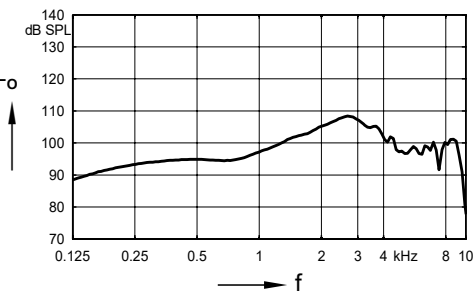
Frequency
response
(L₁ = 60 dB)

Ear simulator



Max. Output
sound pressure
level
(L₁ = 90 dB)

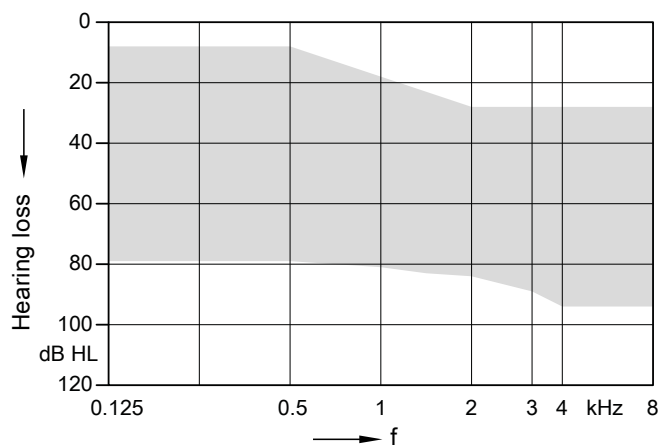
Full-on gain
(L₁ = 50 dB)



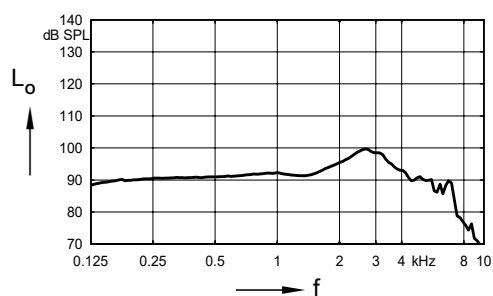
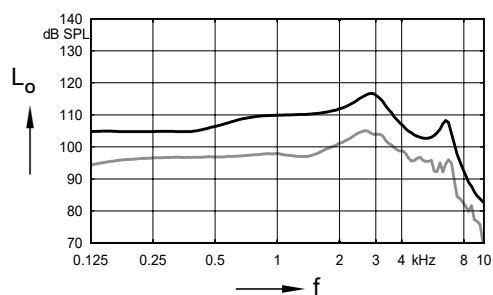
Basic acoustic
response
(L₁ = 60 dB)

TH 7 Canal | OMNI | Basic Data

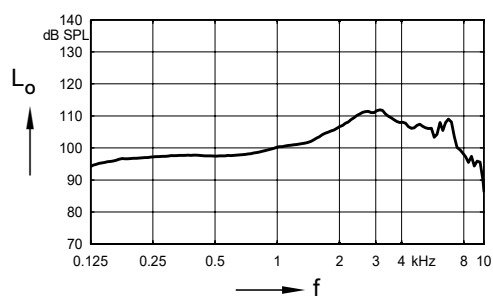
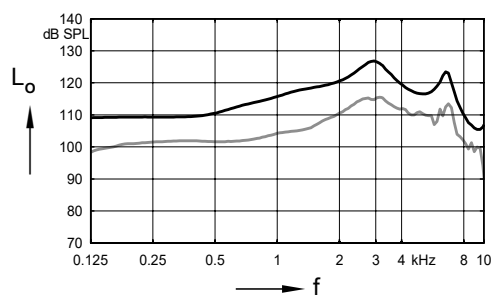
118/55



2 ccm coupler

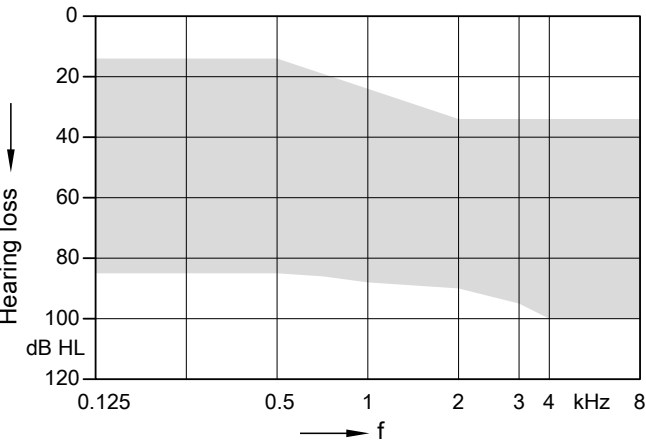


Ear simulator

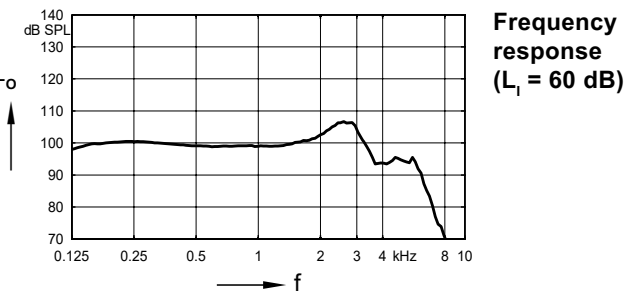
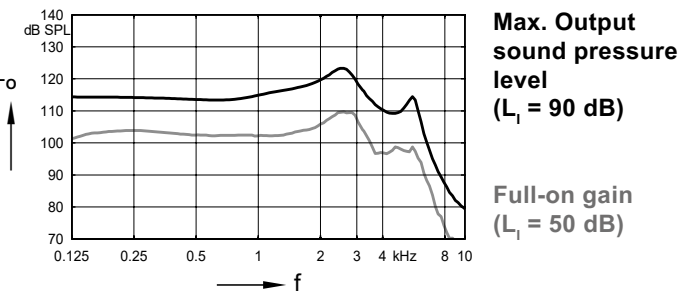


TH 7 Canal | OMNI | Basic Data

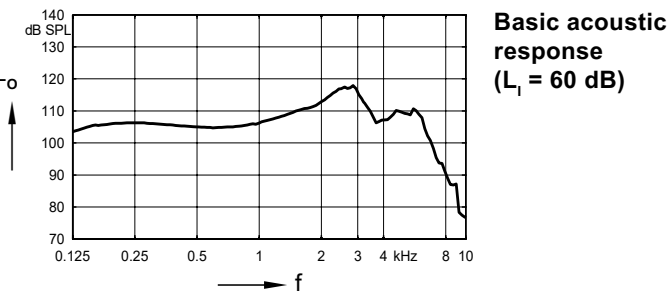
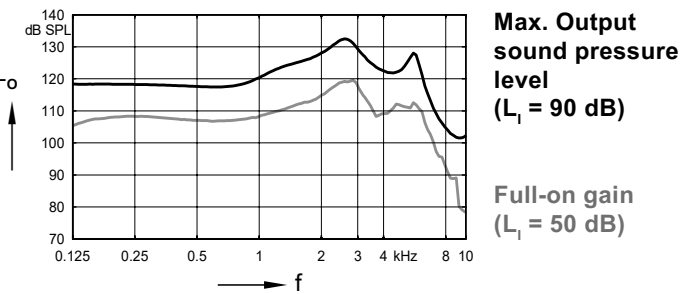
124/60

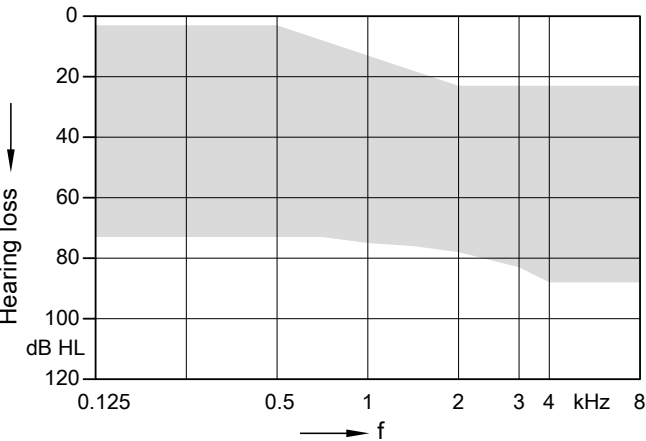


2 ccm coupler

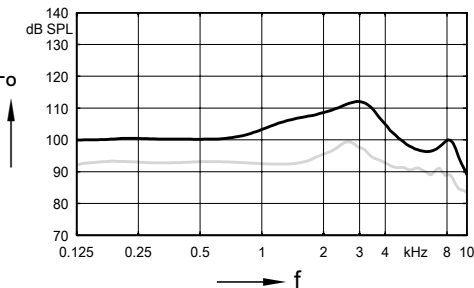


Ear simulator



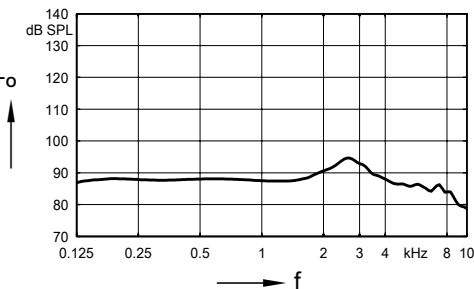


2 ccm coupler



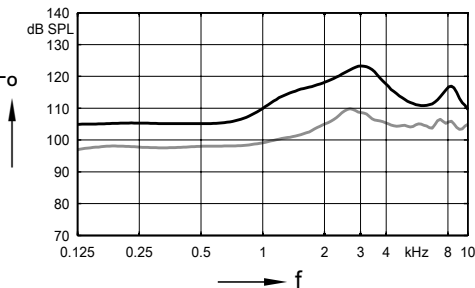
Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)



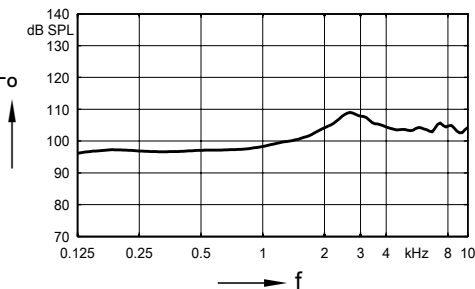
Frequency
response
($L_i = 60$ dB)

Ear simulator

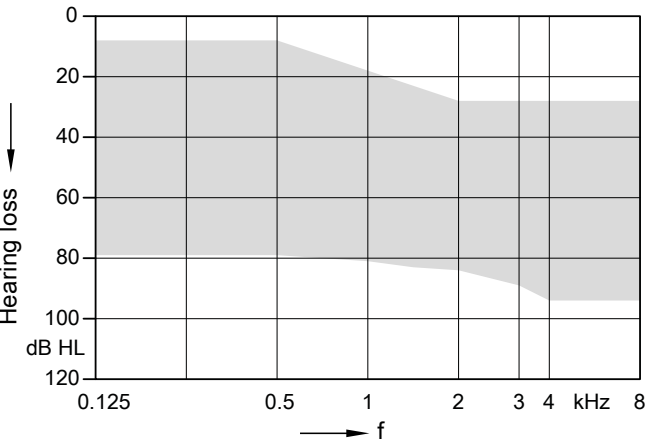


Max. Output
sound pressure
level
($L_i = 90$ dB)

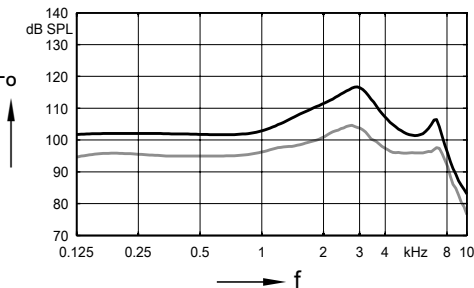
Full-on gain
($L_i = 50$ dB)



Basic acoustic
response
($L_i = 60$ dB)

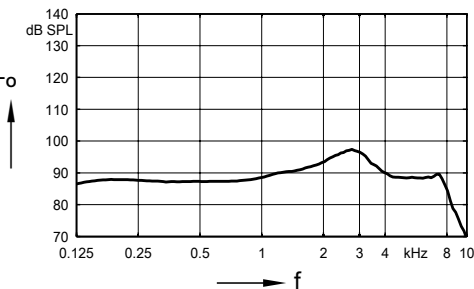


2 ccm coupler



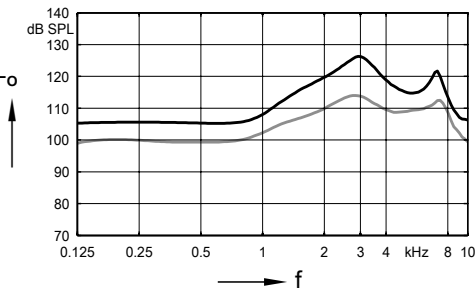
Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)



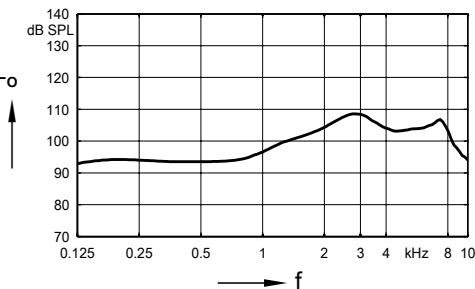
Frequency
response
($L_i = 60$ dB)

Ear simulator

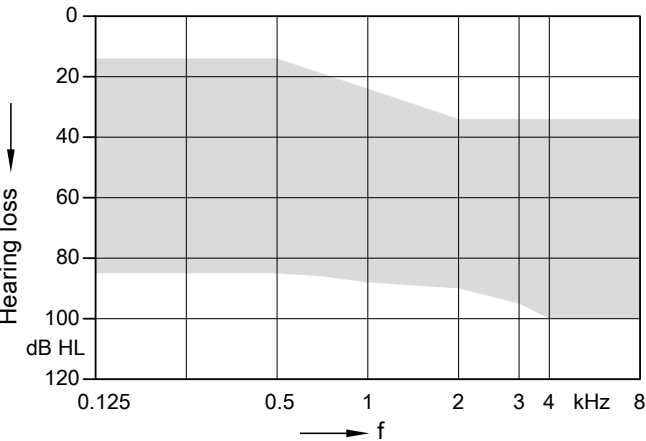


Max. Output
sound pressure
level
($L_i = 90$ dB)

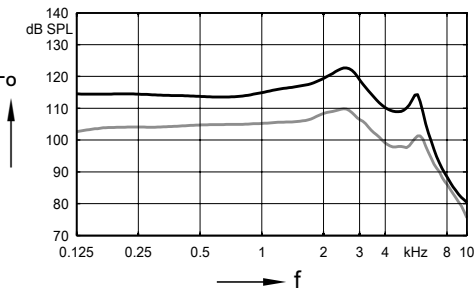
Full-on gain
($L_i = 50$ dB)



Basic acoustic
response
($L_i = 60$ dB)

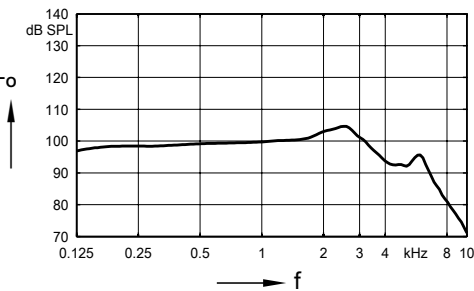


2 ccm coupler



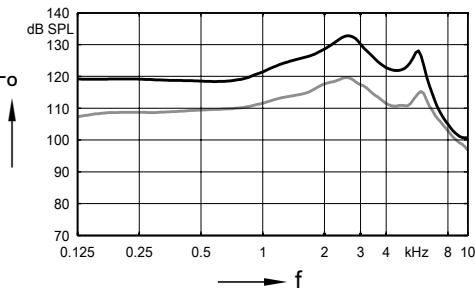
Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)



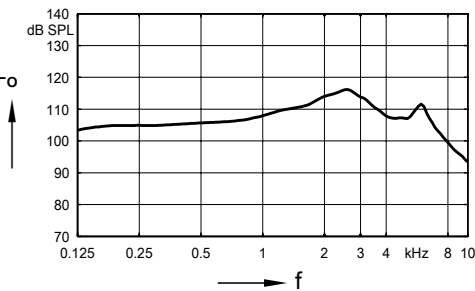
Frequency
response
($L_i = 60$ dB)

Ear simulator



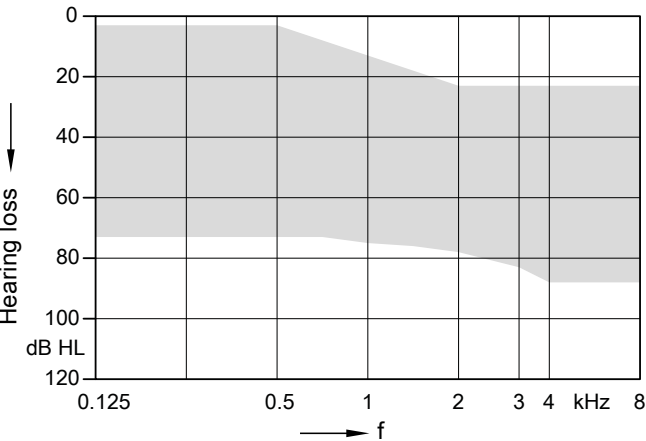
Max. Output
sound pressure
level
($L_i = 90$ dB)

Full-on gain
($L_i = 50$ dB)

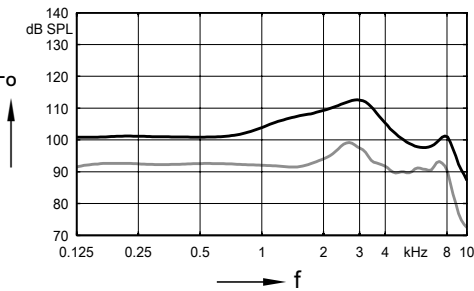


Basic acoustic
response
($L_i = 60$ dB)

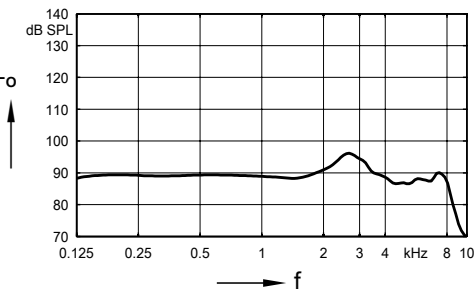
113/50



2 ccm coupler

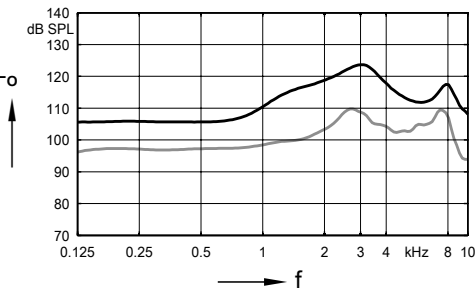


Max. Output sound pressure level ($L_i = 90$ dB)
Full-on gain ($L_i = 50$ dB)

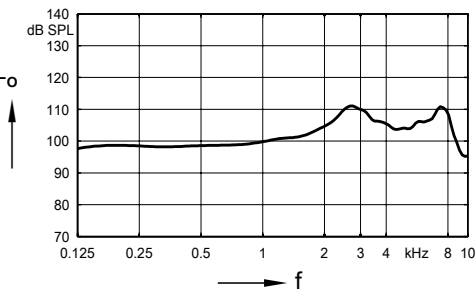


Frequency response ($L_i = 60$ dB)

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)

TH 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 60 % 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.
- Extended bandwidth up to 12 kHz for Premium devices only.

Special note for instruments with built-in lithium-ion rechargeable battery

The runtime of all lithium-ion rechargeable batteries reduces over time. The estimates are based on fresh lithium-ion rechargeable battery capacity. Under normal operating conditions, the battery will retain up to 80 % of its initial capacity after 2 years of use. Please note that battery performance will vary depending on individual usage patterns and environmental conditions.

