TruHearing®

TH Premium/Advanced Custom 19

Technical Data

Made for iPhone | iPad | iPod

ITE

118/55
- 55 dB / 118 dB SPL (2 ccm coupler)
- 65 dB / 128 dB SPL (ear simulator)

124/65
- 65 dB / 124 dB SPL (2 ccm coupler)
- 75 dB / 134 dB SPL (ear simulator)

ITC/HS

113/50
- 50 dB / 113 dB SPL (2 ccm coupler)
- 61 dB / 124 dB SPL (ear simulator)

118/55
- 55 dB / 118 dB SPL (2 ccm coupler)
- 65 dB / 128 dB SPL (ear simulator)

124/65
- 65 dB / 124 dB SPL (2 ccm coupler)
- 75 dB / 133 dB SPL (ear simulator)

CIC

113/50
- 50 dB / 113 dB SPL (2 ccm coupler)
- 64 dB / 124 dB SPL (ear simulator)

118/55
- 55 dB / 118 dB SPL (2 ccm coupler)
- 65 dB / 128 dB SPL (ear simulator)

124/65
- 65 dB / 124 dB SPL (2 ccm coupler)
- 75 dB / 135 dB SPL (ear simulator)

IIC

113/50
- 50 dB / 113 dB SPL (2 ccm coupler)
- 60 dB / 123 dB SPL (ear simulator)

TH 19 ITE | Technical Data

Type	118/55		124/65	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	–	119 dB SPL	–	128 dB SPL
Peak	118 dB SPL	128 dB SPL	124 dB SPL	134 dB SPL
HFA-OSPL 90	112 dB SPL	–	119 dB SPL	–
Gain				
Full on gain (FOG) at 1.6 kHz	–	56 dB	–	68 dB
Full on gain (Peak)	55 dB	65 dB	65 dB	75 dB
HFA-FOG	48 dB	–	60 dB	–
Reference test gain	35 dB	44 dB	42 dB	53 dB
Frequency, noise and directivity				
Frequency range Premium Advanced	100-8200 Hz 100-7700 Hz	100-8500 Hz 100-8000 Hz	100-6200 Hz 100-6000 Hz	100-6100 Hz 100-6000 Hz
Equivalent input noise	20 dB SPL	21 dB SPL	20 dB SPL	21 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	2 / 2 / 2 / 2 %	3 / 3 / 3 / – %	3 / 3 / 2 / 2 %	5 / 7 / 3 / – %
Tinnitus therapy broadband	75 dB	–	80 dB	–
AI-DI	5.2 dB		5.2 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	–	–	–	–
HFA MASL (1 mA/m)	–	–	–	–
HFA SPLITS (left/right)	–	–	–	–
RSETS (left/right)	–	–	–	–
HFA SPLIV	–	–	–	–
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.3 mA	1.3 mA	1.3 mA	1.3 mA
Battery life (cell zinc air) Type 312	~ 70 h		~ 70 h	
Battery life (rechargeable)	–		–	
IRIL IEC 60118-13:2016 Ed. 4.0				
700-960 MHz (rating)	user		user	
1400-2000 MHz (rating)	user		user	
2000-2700 MHz (rating)	user		user	
ANSI C63.19-2011				
800-950 MHz (rating)	M4		M4	
1600-2500 MHz (rating)	M4		M4	

TH 19 ITC/HS | Technical Data

Type	113/50		118/55		124/65	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level						
at 1.6 kHz	–	118 dB SPL	–	119 dB SPL	–	127 dB SPL
Peak	113 dB SPL	124 dB SPL	118 dB SPL	128 dB SPL	124 dB SPL	133 dB SPL
HFA-OSPL 90	108 dB SPL	–	111 dB SPL	–	119 dB SPL	–
Gain						
Full on gain (FOG) at 1.6 kHz	–	53 dB	–	53 dB	–	65 dB
Full on gain (Peak)	50 dB	61 dB	55 dB	65 dB	65 dB	75 dB
HFA-FOG	45 dB	–	47 dB	–	60 dB	–
Reference test gain	31 dB	43 dB	34 dB	44 dB	42 dB	52 dB
Frequency, noise and directivity						
Frequency range Premium Advanced	100-9000 Hz 100-8000 Hz	150-9500 Hz 110-8000 Hz	100-8000 Hz 100-7800 Hz	110-9000 Hz 120-8000 Hz	100-6300 Hz 100-6300 Hz	100-6800 Hz 100-6800 Hz
Equivalent input noise	20 dB SPL	20 dB SPL	21 dB SPL	21 dB SPL	21 dB SPL	21 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	3 / 3 / 3 / 3 %	3 / 4 / 5 / – %	2 / 2 / 2 / 2 %	3 / 3 / 3 / – %	3 / 3 / 2 / 2 %	4 / 7 / 3 / – %
Tinnitus therapy broadband	68 dB	–	75 dB	–	80 dB	–
AI-DI	4.8 dB		4.8 dB		4.8 dB	
Inductive coil sensitivity						
MASL (1 mA/m) at 1.6 kHz	–	–	–	–	–	–
HFA MASL (1 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	1.3 mA	1.3 mA	1.3 mA	1.3 mA	1.3 mA	1.3 mA
Battery life (cell zinc air) Type 312	~ 70 h		~ 70 h		~ 70 h	
Battery life (rechargeable)	–		–		–	
IRIL IEC 60118-13:2016 Ed. 4.0						
700-960 MHz (rating)	user		user		user	
1400-2000 MHz (rating)	user		user		user	
2000-2700 MHz (rating)	user		user		user	
ANSI C63.19-2011						
800-950 MHz (rating)	M4		M4		M4	
1600-2500 MHz (rating)	M4		M4		M4	

TH 19 CIC | Technical Data

Type	113/50		118/55		124/65	
Output sound pressure level	**2 ccm coupler**	**Ear simulator**	**2 ccm coupler**	**Ear simulator**	**2 ccm coupler**	**Ear simulator**
at 1.6 kHz	–	116 dB SPL	–	119 dB SPL	–	127 dB SPL
Peak	113 dB SPL	124 dB SPL	118 dB SPL	128 dB SPL	124 dB SPL	135 dB SPL
HFA-OSPL 90	108 dB SPL	–	112 dB SPL	–	119 dB SPL	–
Gain						
Full on gain (FOG) at 1.6 kHz	–	51 dB	–	55 dB	–	66 dB
Full on gain (Peak)	50 dB	60 dB	55 dB	65 dB	65 dB	75 dB
HFA-FOG	45 dB	–	48 dB	–	59 dB	–
Reference test gain	32 dB	41 dB	35 dB	45 dB	42 dB	51 dB
Frequency, noise and directivity						
Frequency range Premium Advanced	100-10000 Hz 100-8100 Hz	120-10000 Hz 150-8100 Hz	100-10000 Hz 100-8000 Hz	100-10000 Hz 100-8000 Hz	100-9200 Hz 100-8100 Hz	100-9200 Hz 100-8100 Hz
Equivalent input noise	18 dB SPL	18 dB SPL	18 dB SPL	18 dB SPL	18 dB SPL	19 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	3 / 3 / 2 / 1 %	4 / 5 / 4 / – %	2 / 2 / 2 / 1 %	2 / 2 / 2 / – %	2 / 2 / 1 / 1 %	3 / 4 / 2 / – %
Tinnitus therapy broadband	70 dB	–	75 dB	–	80 dB	–
AI-DI	–		–		–	
Inductive coil sensitivity						
MASL (1 mA/m) at 1.6 kHz	–	–	–	–	–	–
HFA MASL (1 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	1.3 mA	1.3 mA	1.3 mA	1.3 mA	1.3 mA	1.3 mA
Battery life (cell zinc air) Type 10	~ 55 h		~ 55 h		~ 55 h	
Battery life (rechargeable)	–		–		–	
IRIL IEC 60118-13:2016 Ed. 4.0						
700-960 MHz (rating)	user		user		user	
1400-2000 MHz (rating)	user		user		user	
2000-2700 MHz (rating)	user		user		user	
ANSI C63.19-2011						
800-950 MHz (rating)	M4		M4		M4	
1600-2500 MHz (rating)	M4		M4		M4	

TH 19 IIC | Technical Data

Type	113/50	
	2 ccm coupler	Ear simulator
Output sound pressure level		
at 1.6 kHz	–	116 dB SPL
Peak	113 dB SPL	123 dB SPL
HFA-OSPL 90	109 dB SPL	–
Gain		
Full on gain (FOG) at 1.6 kHz	–	53 dB
Full on gain (Peak)	50 dB	60 dB
HFA-FOG	46 dB	–
Reference test gain	32 dB	41 dB
Frequency, noise and directivity		
Frequency range	100-7900 Hz	150-8900 Hz
Equivalent input noise	21 dB SPL	21 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	2 / 2 / 2 / 1%	3 / 4 / 3 / – %
Tinnitus therapy broadband	70 dB	–
AI-DI	–	
Inductive coil sensitivity		
MASL (1 mA/m) at 1.6 kHz	–	–
HFA MASL (1 mA/m)	–	–
HFA SPLITS (left/right)	–	–
RSETS (left/right)	–	–
HFA SPLIV	–	–
Battery		
Battery voltage	1.3 V	
Battery current drain	1.3 mA	1.3 mA
Battery life (cell zinc air) Type 10	~ 55 h	
Battery life (rechargeable)	–	
IRIL IEC 60118-13:2016 Ed. 4.0		
700-960 MHz (rating)	user	
1400-2000 MHz (rating)	user	
2000-2700 MHz (rating)	user	
ANSI C63.19-2011		
800-950 MHz (rating)	M4	
1600-2500 MHz (rating)	M4	

TH 19 ITE | Basic Data

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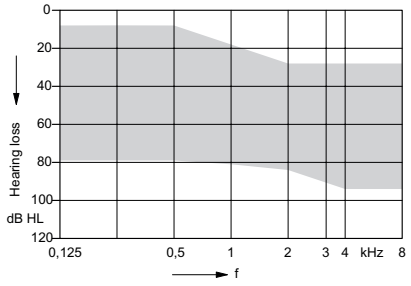
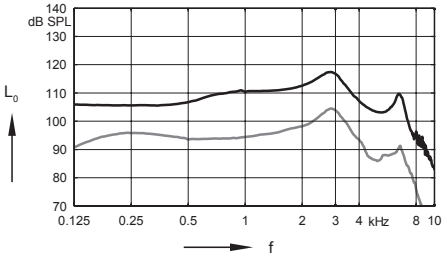
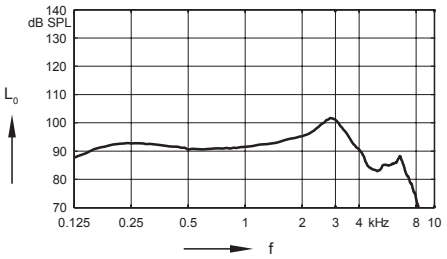


2 ccm coupler



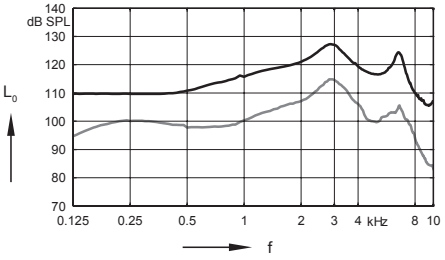
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



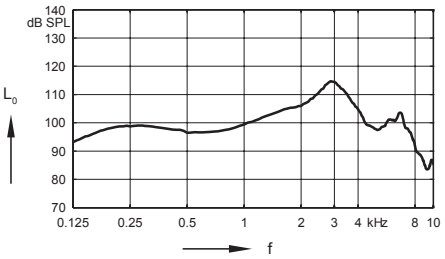
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



Basic acoustic response (L_I = 60 dB)

TH 19 ITE | Basic Data

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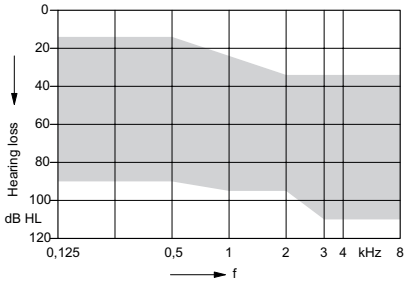
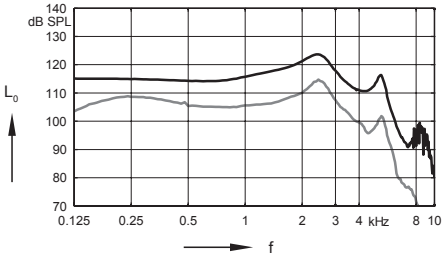
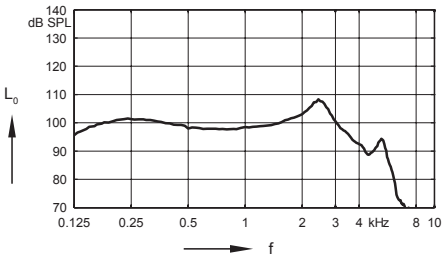


2 ccm coupler



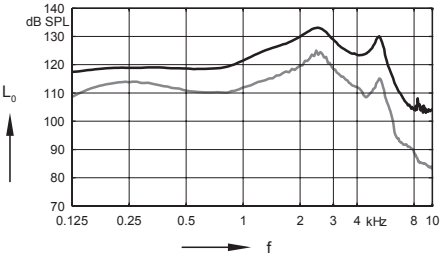
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



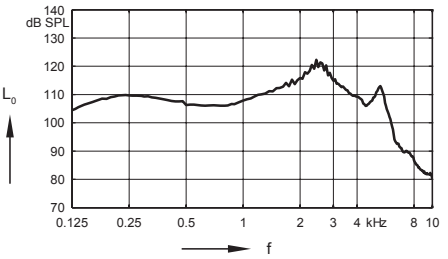
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

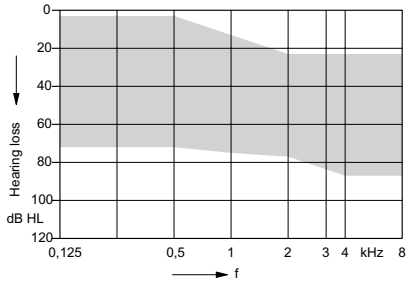
Full on gain (L_I = 50 dB)



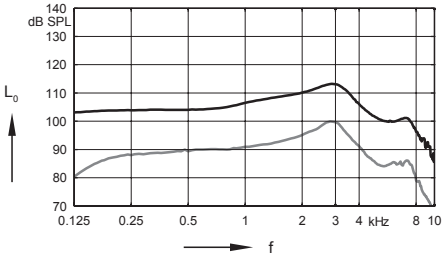
Basic acoustic response (L_I = 60 dB)

TH 19 ITC/HS | Basic Data

113/50

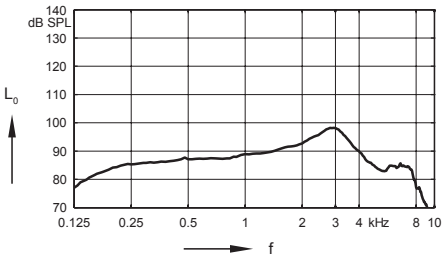


2 ccm coupler



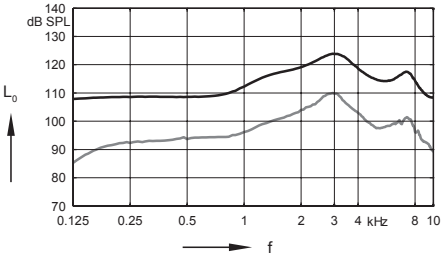
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



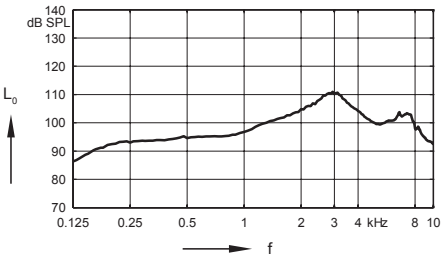
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



Basic acoustic response (L_I = 60 dB)

TH 19 ITC/HS | Basic Data

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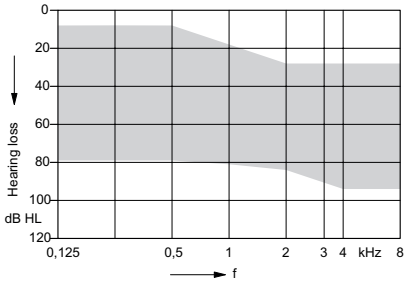
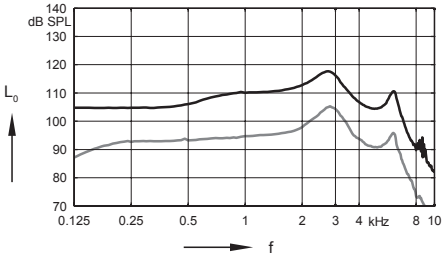
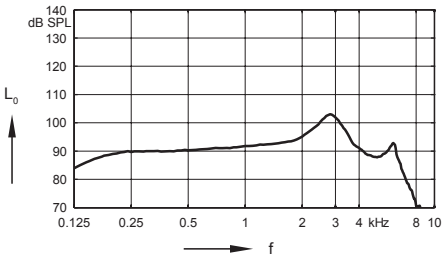


2 ccm coupler



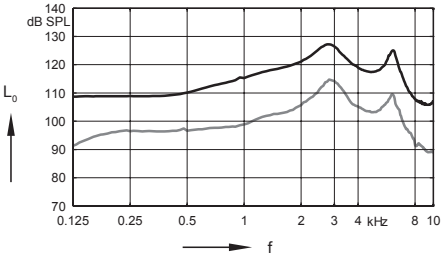
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



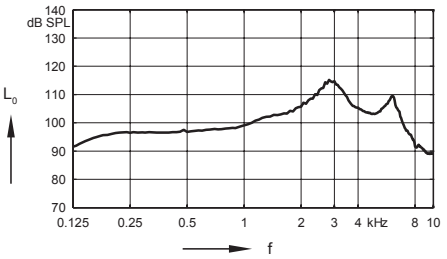
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

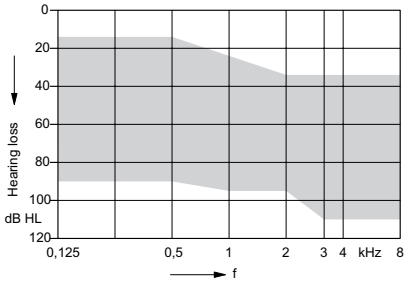
Full on gain (L_I = 50 dB)



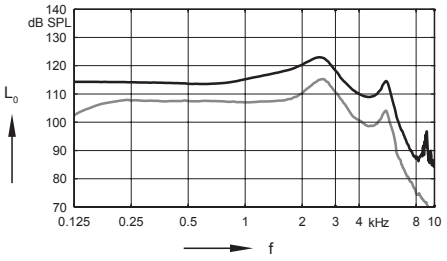
Basic acoustic response (L_I = 60 dB)

TH 19 ITC/HS | Basic Data

124/65

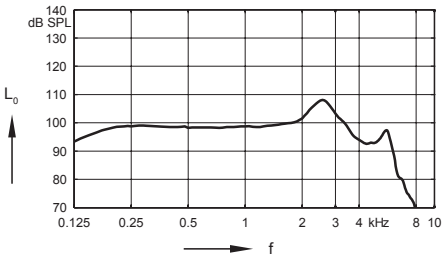


2 ccm coupler



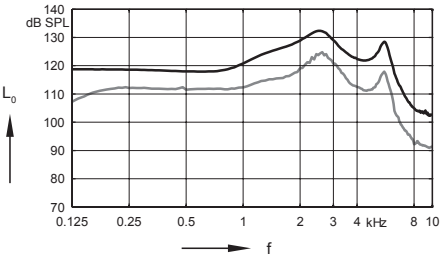
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



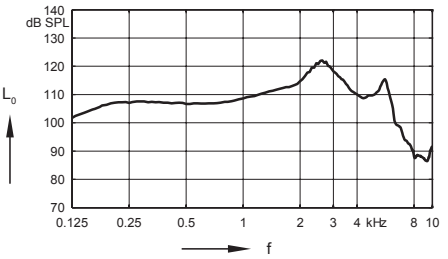
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

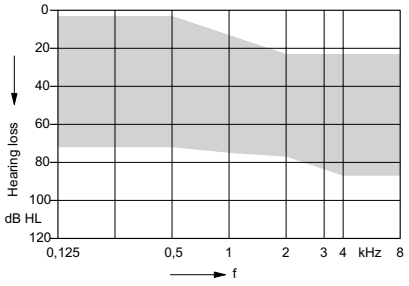
Full on gain (L_I = 50 dB)



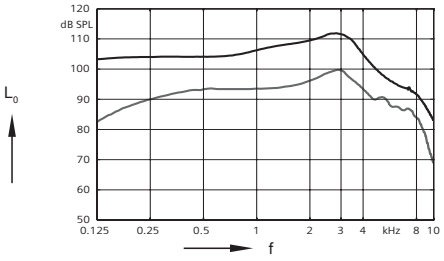
Basic acoustic response (L_I = 60 dB)

TH 19 CIC | Basic Data

113/50

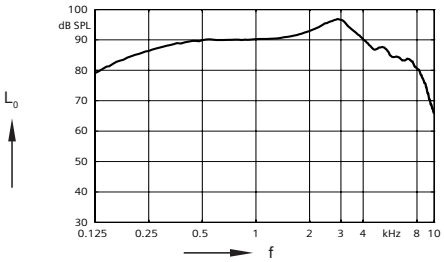


2 ccm coupler



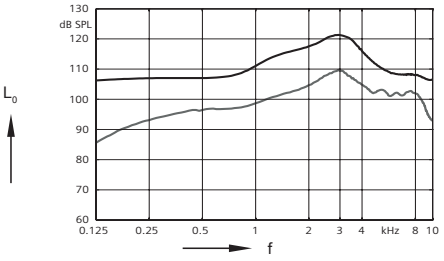
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



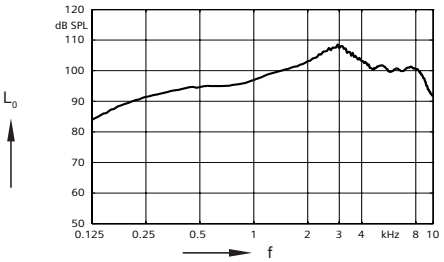
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

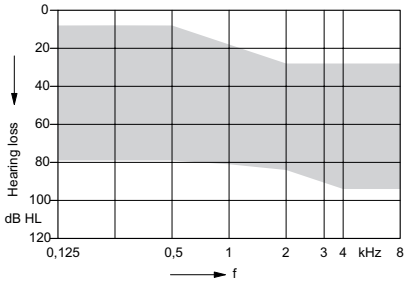
Full on gain (L_I = 50 dB)



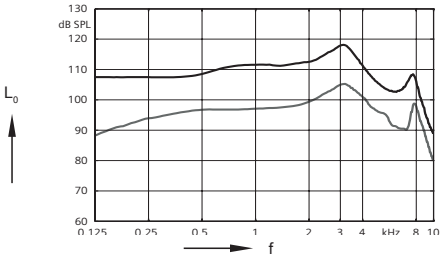
Basic acoustic response (L_I = 60 dB)

TH 19 CIC | Basic Data

118/55

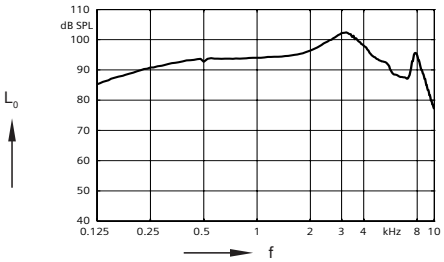


2 ccm coupler



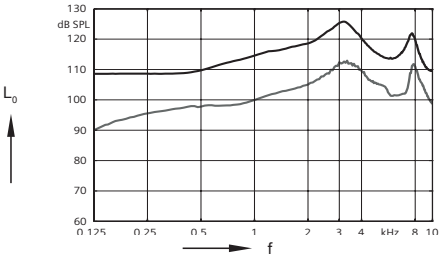
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



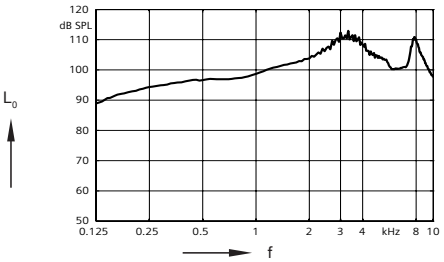
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



Basic acoustic response (L_I = 60 dB)

TH 19 CIC | Basic Data

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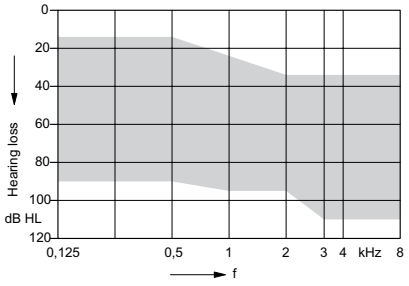
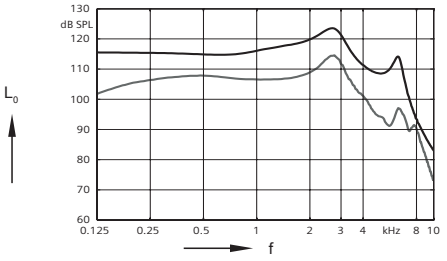
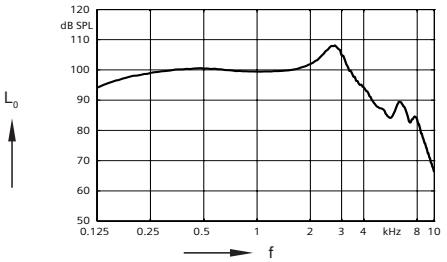


2 ccm coupler



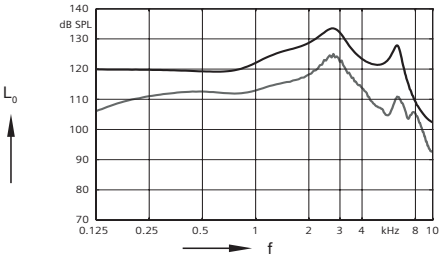
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



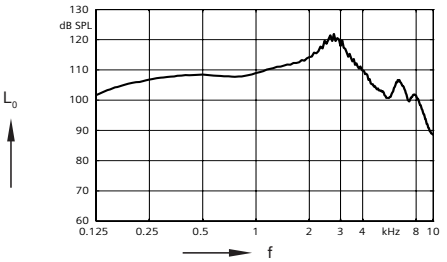
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



Basic acoustic response (L_I = 60 dB)

TH 19 IIC | Basic Data

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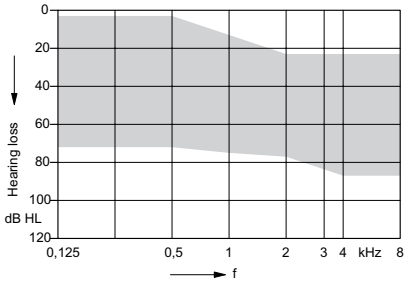
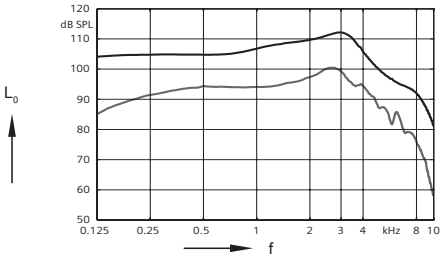
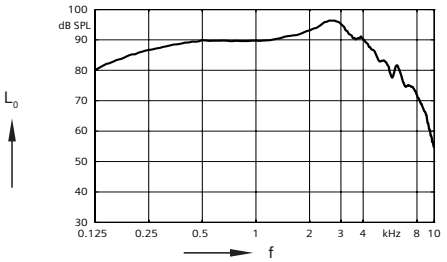


2 ccm coupler



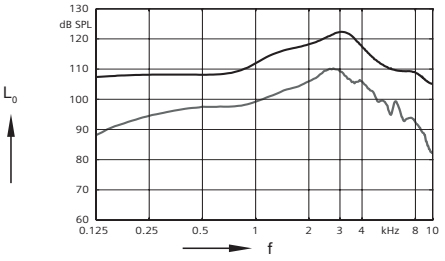
Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



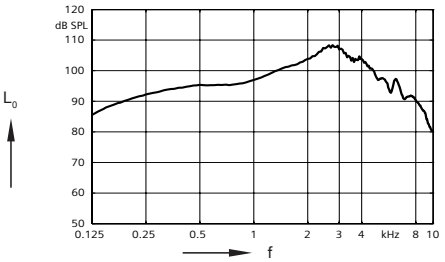
Frequency response (L_I = 60 dB)

Ear simulator



Output sound pressure level (L_I = 90 dB)

Full on gain (L_I = 50 dB)



Basic acoustic response (L_I = 60 dB)

TH Premium/Advanced Custom 19 | Features and Accessories

	ITE / ITC/HS	
	Premium	**Advanced**
Audiology		
Own Voice Processing (OVP) [1]	—	—
3D Classifier	■■■■■	■■■■
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16
Hearing programs	6	6
Sound Clarity		
HD Spatial	●	●
Extended dynamic range	●	●
Extended bandwidth	●	—
EchoShield	●	—
HD Music (presets)	3	1
eWindScreen binaural [1) 2)]	●	●
eWindScreen	●	●
Noise Management		
Speech and noise management (steps)	7	5
SoundSmoothing (steps)	3	3
Directional speech enhancement (steps)	3	1
Feedback cancellation	●	●
Speech Quality		
Directionality		
Binaural OneMic Directionality[1)]	—	—
Narrow Directionality [1)]	●	●
Spatial SpeechFocus [1) 3)]	●	●
SpeechFocus	●	●
TwinPhone[1)]	●	●
Frequency compression	●	●
Direct Streaming		
Made for iPhone	●	●
Adaptive Streaming Volume [4)]	●	●
Tinnitus		
Notched Noise Therapy	●	●
Tinnitus therapy	●	●
Fitting		
Smart Optimizer and Data Logging	●	●
Acclimatization manager	●	●
Performance Guide	●	●
Insitugram	●	●
Learning (classes)	6	3
TeleCare		
TeleCare 3.0	●	●

[1)] req. bilateral fitting
[2)] not available in the universal program on Advanced
[3)] for Advanced in Stroll Program or with Spatial Configurator only
[4)] streaming only

● available ■■■■■ highest feature performance — not available

TH Premium/Advanced Custom 19 | Features and Accessories

	CIC / IIC	
	Premium	**Advanced**
Audiology		
Own Voice Processing (OVP) [1]	—	—
3D Classifier	—	—
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16
Hearing programs	6	6
Sound Clarity		
HD Spatial	—	—
Extended dynamic range	●	●
Extended bandwidth	●	—
EchoShield	●	—
HD Music (presets)	3	1
eWindScreen® binaural [1] [2]	—	—
eWindScreen	●	●
Noise Management		
Speech and noise management (steps)	7	5
SoundSmoothing® (steps)	3	3
Directional speech enhancement (steps)	1	1
Feedback cancellation	●	●
Speech Quality		
Directionality		
Binaural OneMic Directionality[1]	●	●
Narrow Directionality [1]	—	—
Spatial SpeechFocus [1] [3]	—	—
SpeechFocus	—	—
TwinPhone[1]	●	●
Frequency compression	●	●
Direct Streaming		
Made for iPhone®	—	—
Adaptive Streaming Volume [4]	—	—
Tinnitus		
Notched Noise Therapy	●	●
Tinnitus therapy	●	●
Fitting		
Smart Optimizer and Data Logging	●	●
Acclimatization manager	●	●
Performance Guide	●	●
Insitugram	●	●
Learning (classes)	6	3
TeleCare		
TeleCare 3.0	—	—

[1] req. bilateral fitting
[2] not available in the universal program on Advanced
[3] for Advanced in Stroll Program or with Spatial Configurator only
[4] streaming only

● available ■■■■■ highest feature performance — not available

TH Premium/Advanced Custom 19 | Features and Accessories

	ITE / ITC/HS	CIC	IIC
Style Specific Features			
Ingress Protection Rating	—	—	—
Charging contacts	—	—	—
Battery Size	312	10	10
Battery door on/off function	●	●	●
Nanocoated housing	—	—	—
e2e wireless® 3.0	●	●	●
User controls coupling via e2e	●	●	●
Wireless programming	●	●	●
Instrument configurations			
Flat cover	—	—	—
Rotary volume control	—	—	—
Push button	○	○	—
Rocker switch	—	—	—
Color conversion kit	—	—	—
Battery door – direct audio input	—	—	—
Battery door – child lock	—	—	—
Small earhook	—	—	—
Programming Accessories			
ConnexxAir / ConnexxLink	— / —	● / —	● / —
Noahlink™ wireless	●	—	—
Programming adapter / cable	Flex connector	Flex connector	—
Accessories			
miniPocket®	○	○	○
TH CROS RIC 19	—	—	—
StreamLine TV	○	—	—
StreamLine Mic	○	—	—
App			
myControl™ App	○	—	—
touchControl™ App	○	○	○

● available ○ optional — not available

Abbreviations and Standards

Abbreviations

The following abbreviations are used in this datasheet:

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 Equivalent Telephone Sensitivity
AI-DI	Articulation Index - Directivity Index
IRIL	Input Related Interference Level
RTF	Reference Test Frequency

Standards

- ▶ All measurements with the 2 ccm coupler were performed according to ANSI S3.22-2014 and IEC 60118-0:2015 if applicable.
- ▶ All measurements with an ear simulator were performed according to IEC 118-0/A1:1994 and to DIN 45605 (frequency range) if applicable.
- ▶ 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.
- ▶ Inductive coil sensitivity values, inductive response curves and T ratings apply for instruments with telecoil battery door only.
- ▶ Tinnitus therapy 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.
- ▶ The current consumption is measured in reference test setting (RTS) according to the applicable standards. Due to the settling behaviour of hearing instruments supporting RF (radio frequency), the battery current is measured 3 minutes after turning on (note: no pairing).
- ▶ The battery life 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 life is determined by battery quality, hearing loss, sound environment, usage and activated feature set.
- ▶ Extended frequency range up to 12 kHz for Premium devices only.

Made for iPhone | iPad | iPod

“Made for iPod”, “Made for iPhone”, and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

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.

Manufactured for
TruHearing Inc.
12936 S. Frontrunner Blvd
Draper, UT 84020
United States

Order No. 03800-99T1-7600, SI/18935-19

www.truhearing.com

Warning
Choking hazard posed by small parts.
- ▶ This instrument is not intended for the fitting of infants, children under 3 years and persons of mental incapacity.

Warning
Instrument has an output sound pressure level of 132 dB SPL or more.

Risk of impairing the residual hearing of the user.
- ▶ Take special care when fitting this instrument.