



#### QuadCore Platform

- QuadCore Audio Exchange<sup>1</sup> (requires bilateral fitting)
- 42 signal processing channels
- 20 gain handles
- Binaural signal processing synchronization<sup>1</sup>
- Volume and program coupling<sup>1</sup>
- 6 programs

#### Optional Hardware

- Directional Microphone
- Volume Control
- Push Button
- Telecoil (automatic)
- Wireless

#### QuadCore Speech

- Directional iLock Premium Performance<sup>2</sup>
- iFocus 360<sup>2</sup>
- Intelligent Mic Morphing Premium Performance<sup>3</sup>
- HD Directionality Premium Performance<sup>3</sup>
- HD Bandwidth (10 kHz)
- Feedback Preventer
- Bandwidth Compression

#### Automatic Optimization

- Smart Automatic Equalizer Premium Performance
- Smart Automatic Acclimatization Premium Performance
- Automatic Classifier Premium Performance
- Data Logging

#### Sound Comfort and Convenience

- Smart Remote App (provides the main functionality of the Smart Remote with just an app)
- Noise Management Premium Performance
- Sound Smoothing Premium Performance
- Sound Radiance
- Wind Noise Cancellation Premium Performance
- Omni Sound Locator
- Microphone-pattern adjustment<sup>2</sup> (Smart Connect App recommended)

#### Accessories

- Smart Remote™<sup>1</sup>
- Smart Connect™<sup>1</sup> (for Bluetooth connection with cell phones and stereo audio streaming)
- Smart Connect App<sup>1</sup> (requires Smart Connect)
- Transmitter<sup>1</sup> (requires Smart Connect)
- Speech Connect<sup>1</sup> (requires Smart Connect)
- Wired programming via Flex Connector
- Wireless programming with ConnexLink™<sup>1</sup>

<sup>1</sup> Wireless option required

<sup>2</sup> Wireless option and directional microphone required

<sup>3</sup> Directional microphone required

# [Trax 42 Custom]

Data Sheet

[www.rexton.com](http://www.rexton.com)

**REXTON** 

# Trax 42 Custom ITE · Technical Data

Type	118/55		123/55		123/60	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level						
at 1.6 kHz	-	119 dB SPL	-	127 dB SPL	-	127 dB SPL
Peak	118 dB SPL	128 dB SPL	123 dB SPL	132 dB SPL	123 dB SPL	132 dB SPL
HFA-OSPL 90	113 dB SPL	-	118 dB SPL	-	118 dB SPL	-
Gain						
Full on gain (FOG) at 1.6 kHz	-	55 dB	-	55 dB	-	60 dB
Full on gain (Peak)	55 dB	65 dB	55 dB	64 dB	60 dB	69 dB
HFA-FOG	48 dB	-	49 dB	-	54 dB	-
Reference test gain	35 dB	45 dB	41 dB	47 dB	41 dB	52 dB
Frequency, noise and directivity						
Frequency range	100-7500 Hz	120-8500 Hz	100-5700 Hz	100-5900 Hz	100-5700 Hz	100-5900 Hz
Equivalent input noise	21 dB SPL	17 dB SPL	21 dB SPL	21 dB SPL	21 dB SPL	21 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	2 / 3 / 2 %	3 / 5 / 3 %	2 / 2 / 3 %	3 / 5 / 3 %	2 / 2 / 3 %	3 / 5 / 3 %
AI-DI	5.2 dB		5.2 dB		5.2 dB	
Inductive coil sensitivity						
MASL (1 mA/m) at 1.6 kHz	-	85 dB SPL	-	85 dB SPL	-	90 dB SPL
HFA MASL (1 mA/m)	78 dB SPL	-	79 dB SPL	-	84 dB SPL	-
HFA SPLITS (left/right)	94 / 94 dB SPL	-	100 / 100 dB SPL	-	100 / 100 dB SPL	-
RSETS (left/right)	-1 / -1 dB	-	-1 / -1 dB	-	-1 / -1 dB	-
Battery						
Battery voltage	1.3 V		1.3 V		1.3 V	
Battery current drain	1.0 mA		1.0 mA		1.0 mA	
Battery life (cell zinc air) Type 13 / 312	~ 220 h / ~120 h		~ 220 h / ~120 h		~ 220 h / ~120 h	
Battery life (rechargeable)	-		-		-	
IRIL IEC 118-13:2011 (bystander)						
800-960 MHz	< -6 dB SPL		< -6 dB SPL		< -6 dB SPL	
1400-2000 MHz	< -24 dB SPL		< -24 dB SPL		< -24 dB SPL	
ANSI C63.19	M4 / T3		M4 / T3		M4 / T3	

# Trax 42 Custom ITC · Technical Data

Type	113/40		118/45	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	-	116 dB SPL	-	119 dB SPL
Peak	113 dB SPL	124 dB SPL	118 dB SPL	129 dB SPL
HFA-OSPL 90	108 dB SPL	-	112 dB SPL	-
Gain				
Full on gain (FOG) at 1.6 kHz	-	42 dB	-	43 dB
Full on gain (Peak)	40 dB	51 dB	45 dB	55 dB
HFA-FOG	34 dB	-	37 dB	-
Reference test gain	31 dB	35 dB	35 dB	36 dB
Frequency, noise and directivity				
Frequency range	100-8400 Hz	110-9000 Hz	100-8000 Hz	110-8500 Hz
Equivalent input noise	21 dB SPL	21 dB SPL	21 dB SPL	22 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	4 / 3 / 3 %	3 / 4 / 3 %	2 / 2 / 2 %	3 / 5 / 4 %
AI-DI	4.8 dB		4.8 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	-	74 dB SPL	-	75 dB SPL
HFA MASL (1 mA/m)	65 dB SPL	-	67 dB SPL	-
HFA SPLITS (left/right)	90 / 90 dB SPL	-	94 / 94 dB SPL	-
RSETS (left/right)	-1 / -1 dB	-	-1 / -1 dB	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.1 mA		1.1 mA	
Battery life (cell zinc air) Type 312 / 10	~110 h / ~ 60 h		~110 h / ~ 60 h	
Battery life (rechargeable)	-		-	
IRIL IEC 118-13:2011 (bystander)				
800-960 MHz	< -6 dB SPL		< -6 dB SPL	
1400-2000 MHz	< -24 dB SPL		< -24 dB SPL	
ANSI C63.19	M4 / T2		M4 / T2	

# Trax 42 Custom ITC · 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	-	127 dB SPL
Peak	118 dB SPL	129 dB SPL	124 dB SPL	134 dB SPL
HFA-OSPL 90	112 dB SPL	-	120 dB SPL	-
Gain				
Full on gain (FOG) at 1.6 kHz	-	53 dB	-	65 dB
Full on gain (Peak)	55 dB	65 dB	65 dB	75 dB
HFA-FOG	47 dB	-	60 dB	-
Reference test gain	35 dB	44 dB	44 dB	53 dB
Frequency, noise and directivity				
Frequency range	100-8000 Hz	110-8500 Hz	100-6200 Hz	100-6600 Hz
Equivalent input noise	21 dB SPL	22 dB SPL	20 dB SPL	20 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	2 / 2 / 2 %	3 / 5 / 4 %	2 / 3 / 1 %	5 / 7 / 2 %
AI-DI	4.8 dB		4.8 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	-	85 dB SPL	-	96 dB SPL
HFA MASL (1 mA/m)	77 dB SPL	-	89 dB SPL	-
HFA SPLITS (left/right)	94 / 94 dB SPL	-	103 / 103 dB SPL	-
RSETS (left/right)	-1 / -1 dB	-	0 / 0 dB	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.1 mA		1.1 mA	
Battery life (cell zinc air) Type 312 / 10	~110 h / ~ 60 h		~110 h / -	
Battery life (rechargeable)	-		-	
IRIL IEC 118-13:2011 (bystander)				
800-960 MHz	< -6 dB SPL		< -6 dB SPL	
1400-2000 MHz	< -24 dB SPL		< -24 dB SPL	
ANSI C63.19	M4 / T2		M4 / T2	

# Trax 42 Custom CIC · Technical Data

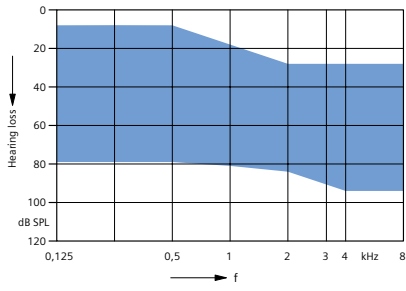
Type	113/40		113/50	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	-	116 dB SPL	-	116 dB SPL
Peak	113 dB SPL	124 dB SPL	113 dB SPL	124 dB SPL
HFA-OSPL 90	109 dB SPL	-	109 dB SPL	-
Gain				
Full on gain (FOG) at 1.6 kHz	-	42 dB	-	52 dB
Full on gain (Peak)	40 dB	53 dB	50 dB	63 dB
HFA-FOG	35 dB	-	45 dB	-
Reference test gain	32 dB	36 dB	32 dB	41 dB
Frequency, noise and directivity				
Frequency range	100-8600 Hz	110-10000 Hz	100-8600 Hz	110-10000 Hz
Equivalent input noise	21 dB SPL	21 dB SPL	21 dB SPL	21 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	3 / 3 / 2 %	4 / 5 / 4 %	3 / 3 / 2 %	4 / 5 / 4 %
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)	-	-	-	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.0 mA		1.0 mA	
Battery life (cell zinc air) Type 10	~ 70 h		~ 70 h	
Battery life (rechargeable)	-		-	
IRIL IEC 118-13:2011 (bystander)				
800-960 MHz	< -6 dB SPL		< -6 dB SPL	
1400-2000 MHz	< -24 dB SPL		< -24 dB SPL	
ANSI C63.19	M4		M4	

# Trax 42 Custom CIC · Technical Data

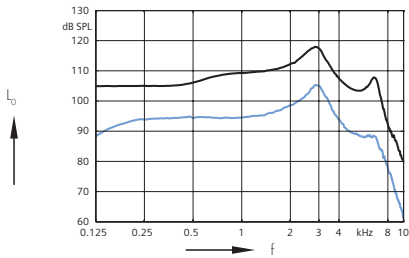
Type	118/55		124/65	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	-	119 dB SPL	-	127 dB SPL
Peak	118 dB SPL	128 dB SPL	124 dB SPL	134 dB SPL
HFA-OSPL 90	112 dB SPL	-	119 dB SPL	-
Gain				
Full on gain (FOG) at 1.6 kHz	-	55 dB	-	67 dB
Full on gain (Peak)	55 dB	65 dB	65 dB	75 dB
HFA-FOG	48 dB	-	60 dB	-
Reference test gain	35 dB	44 dB	43 dB	52 dB
Frequency, noise and directivity				
Frequency range	100-8900 Hz	130-10000 Hz	100-6300 Hz	100-7900 Hz
Equivalent input noise	18 dB SPL	19 dB SPL	18 dB SPL	14 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	1 / 1 / 1 %	1 / 2 / 2 %	1 / 2 / 1 %	3 / 4 / 1 %
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)	-	-	-	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.0 mA		1.1 mA	
Battery life (cell zinc air) Type 10	~70 h		~65 h	
Battery life (rechargeable)	-		-	
IRIL IEC 118-13:2011 (bystander)				
800-960 MHz	< -6 dB SPL		< -6 dB SPL	
1400-2000 MHz	< -24 dB SPL		< -24 dB SPL	
ANSI C63.19	M4		M4	

# Trax 42 Custom ITE · Basic Data

118/55



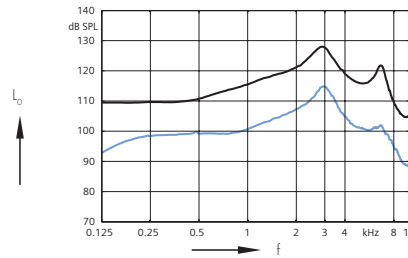
## 2 ccm coupler



Output sound pressure level  
( $L_1 = 90$  dB)

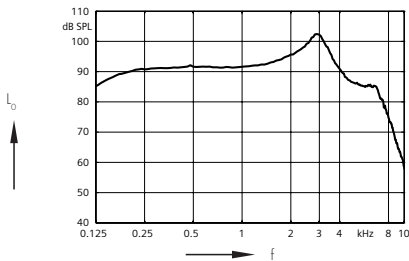
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

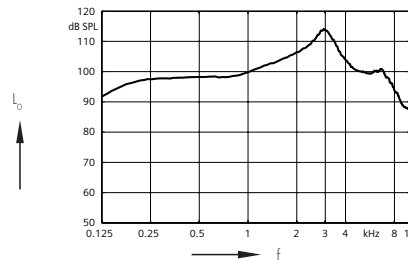


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



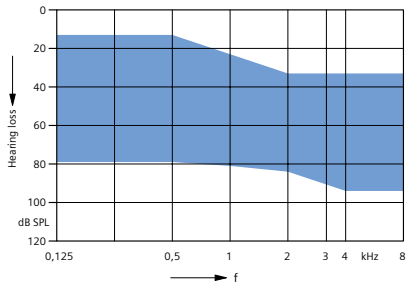
Frequency response  
( $L_1 = 60$  dB)



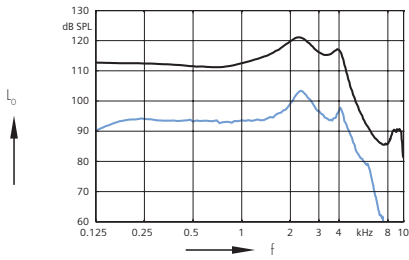
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom ITE · Basic Data

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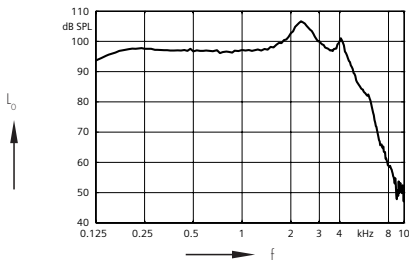


## 2 ccm coupler



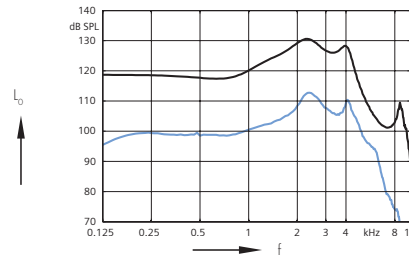
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



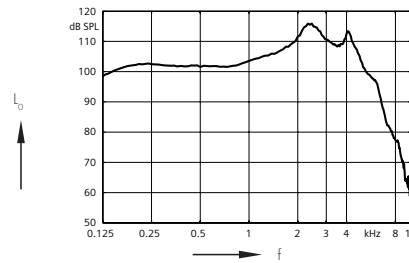
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)

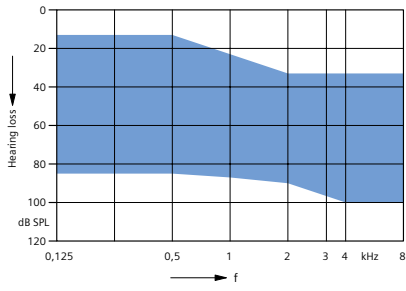


Basic acoustic response  
( $L_1 = 60$  dB)

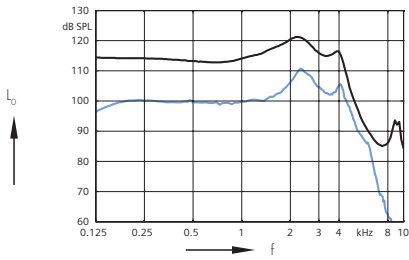


# Trax 42 Custom ITE · Basic Data

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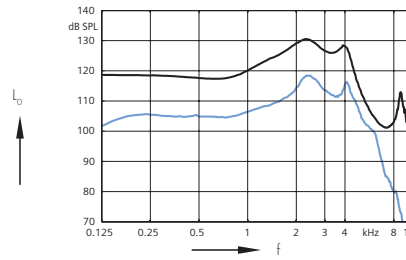
## 2 ccm coupler



Output sound pressure level  
( $L_1 = 90$  dB)

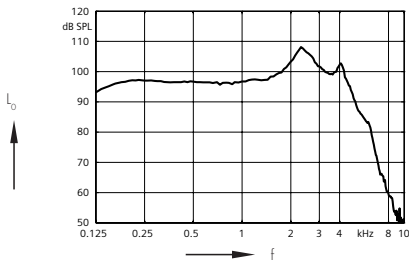
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

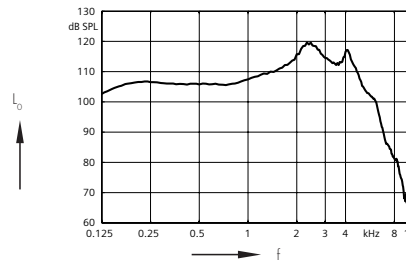


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



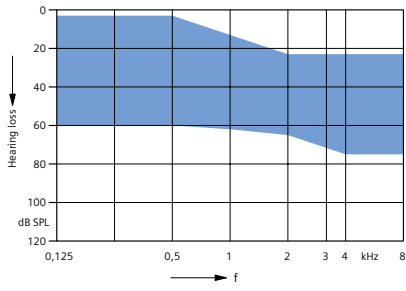
Frequency response  
( $L_1 = 60$  dB)



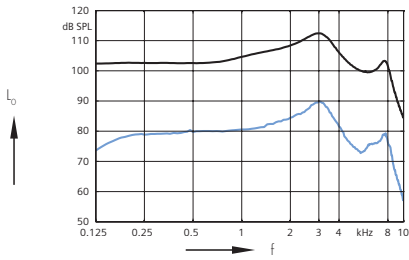
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom ITC · Basic Data

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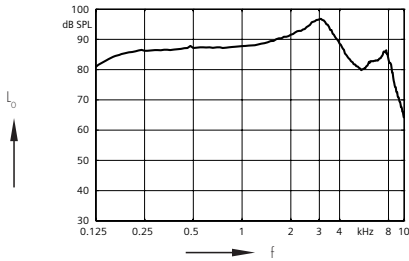


## 2 ccm coupler



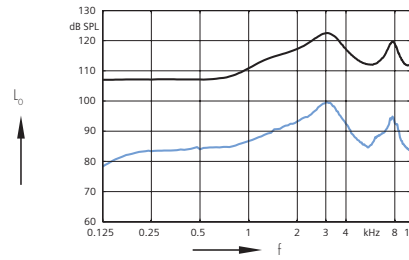
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



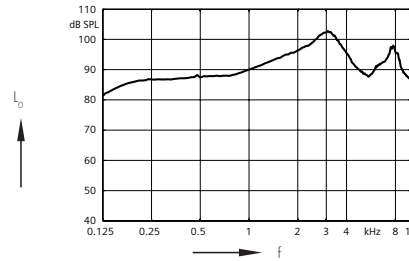
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

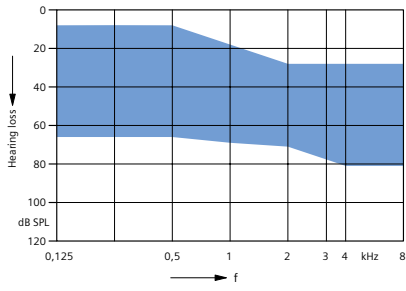
Full on gain  
( $L_1 = 50$  dB)



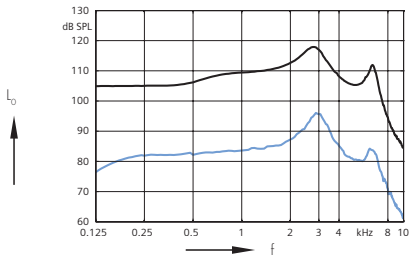
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom ITC · Basic Data

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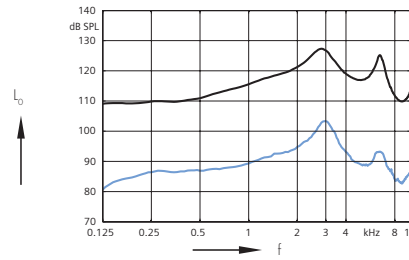
## 2 ccm coupler



Output sound pressure level  
( $L_1 = 90$  dB)

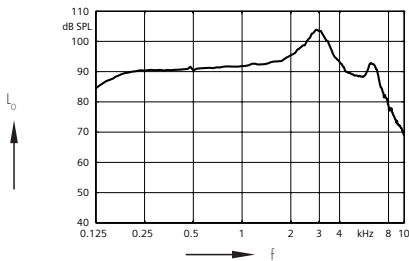
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

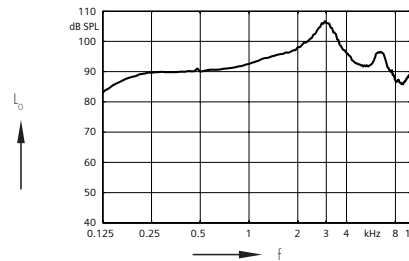


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



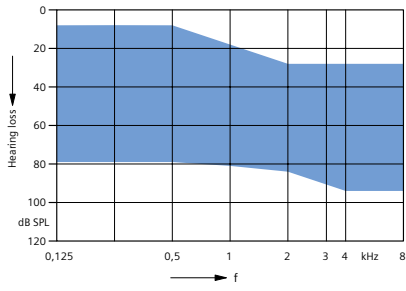
Frequency response  
( $L_1 = 60$  dB)



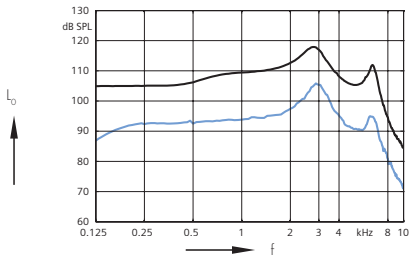
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom ITC · Basic Data

118/55

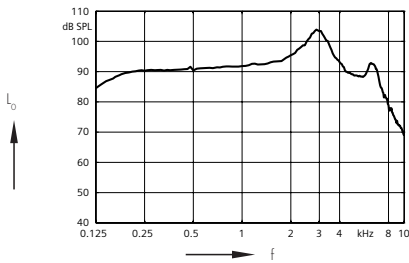


## 2 ccm coupler



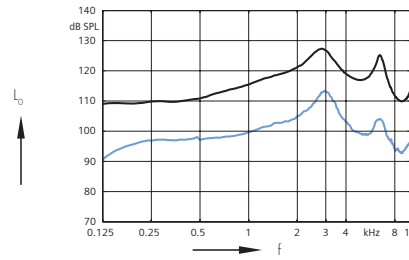
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



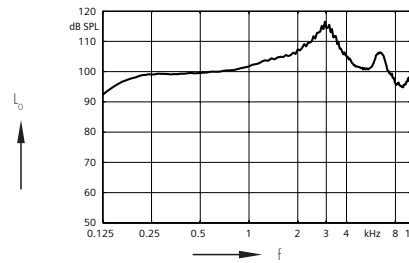
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

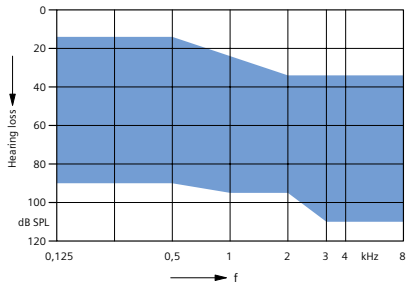
Full on gain  
( $L_1 = 50$  dB)



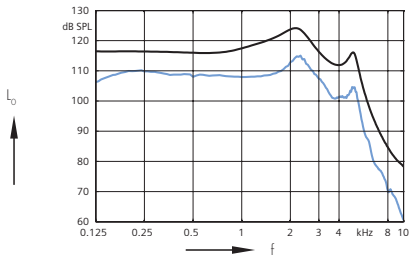
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom ITC · Basic Data

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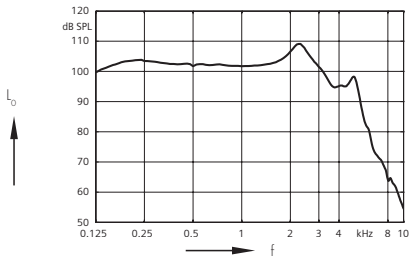


## 2 ccm coupler



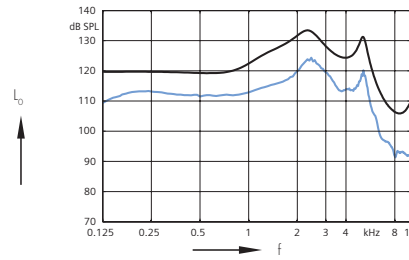
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



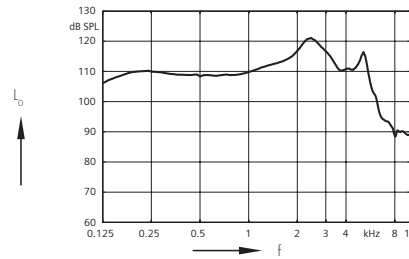
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

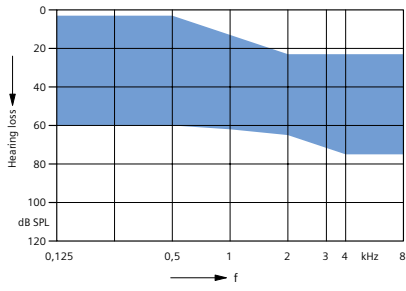
Full on gain  
( $L_1 = 50$  dB)



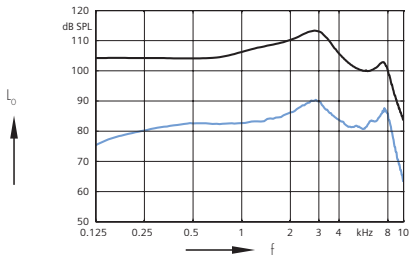
Basic acoustic response  
( $L_1 = 60$  dB)

# Trax 42 Custom CIC · Basic Data

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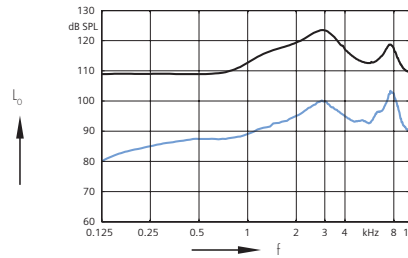
## 2 ccm coupler



Output sound pressure level  
( $L_1 = 90$  dB)

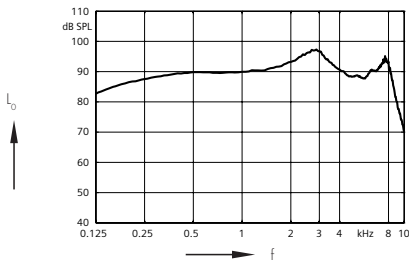
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

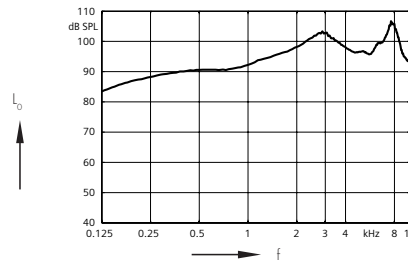


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



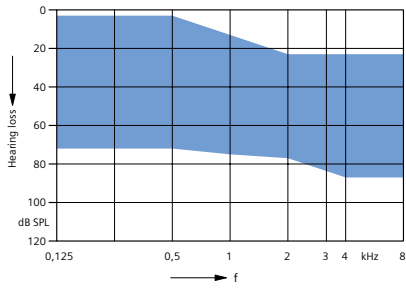
Frequency response  
( $L_1 = 60$  dB)



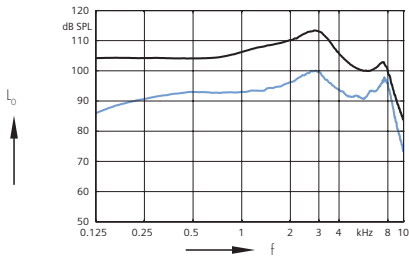
Basic acoustic response  
( $L_1 = 60$  dB)

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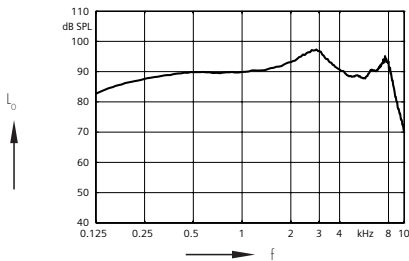


## 2 ccm coupler



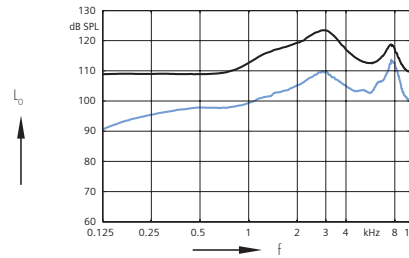
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



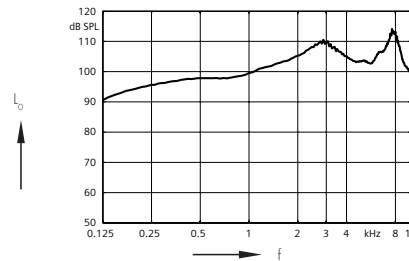
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

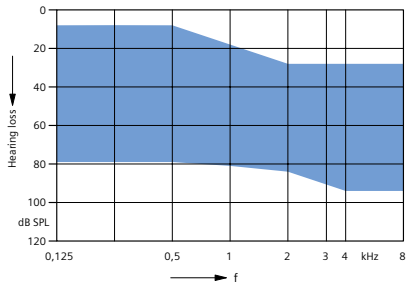
Full on gain  
( $L_1 = 50$  dB)



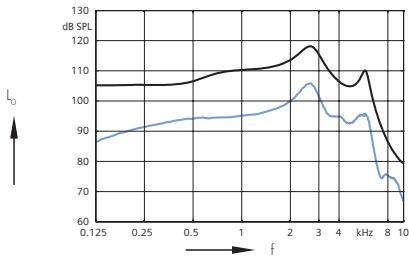
Basic acoustic response  
( $L_1 = 60$  dB)

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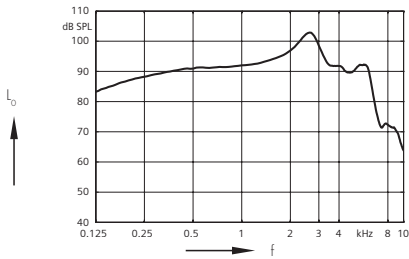


## 2 ccm coupler



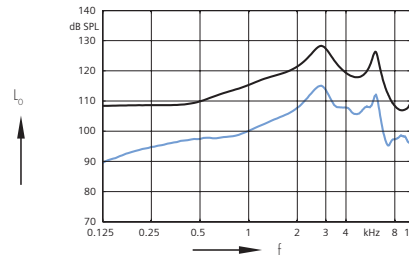
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



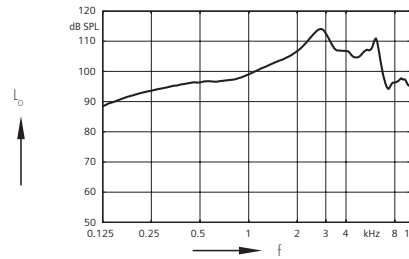
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)

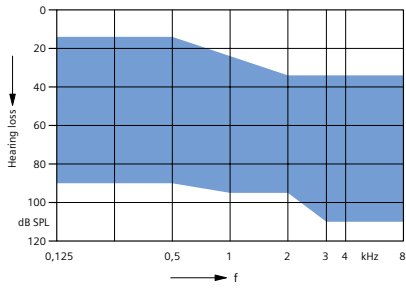


Basic acoustic response  
( $L_1 = 60$  dB)

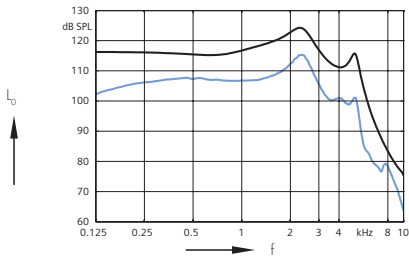


# Trax 42 Custom CIC · Basic Data

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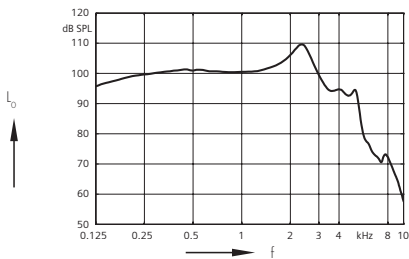


## 2 ccm coupler



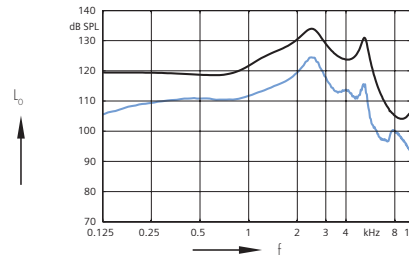
Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



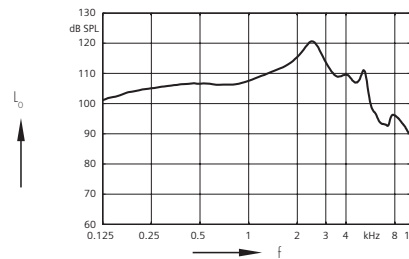
Frequency response  
( $L_1 = 60$  dB)

## Ear simulator



Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)



Basic acoustic response  
( $L_1 = 60$  dB)





# [Trax 42 Custom]

## 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 S3.22-2009 and IEC 60118-7:2005 if applicable.
- ▶ All measurements with an ear simulator were performed according to IEC 118-0/A1 and to DIN 45605 (frequency range) if applicable.

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.

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#### 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.