



#### QuadCore Platform

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

#### Hardware

- RIC technology (45dB, 60dB, 70dB, 75dB external receivers)
- 13 battery
- Rocker switch
- Telecoil
- Autophone
- SecureTec protection (IP67 rating)

#### QuadCore Speech

- Directional iLock Premium Performance
- iFocus 360
- Intelligent Mic Morphing (42 channels)
- HD Directionality (3 steps and on/off)
- HD Bandwidth (10 kHz)
- 4c Feedback Preventer
- 4c Bandwidth Compression

#### Smart Set & Go

- 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
- Omni Sound Locator
- Microphone-pattern adjustment (Smart Connect App recommended)

#### Accessories

- Smart Remote
- Smart Connect (for Bluetooth connection with cell phones and stereo audio streaming)
- Smart Connect App (requires Smart Connect)
- Transmitter (requires Smart Connect)
- Speech Connect (requires Smart Connect)
- Smart Power charger
- Wired programming with 13-programming-adaptor
- Wireless programming with Connexlink™



# [Trax 42 XM]

Data Sheet



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# Trax 42 XM · Technical Data

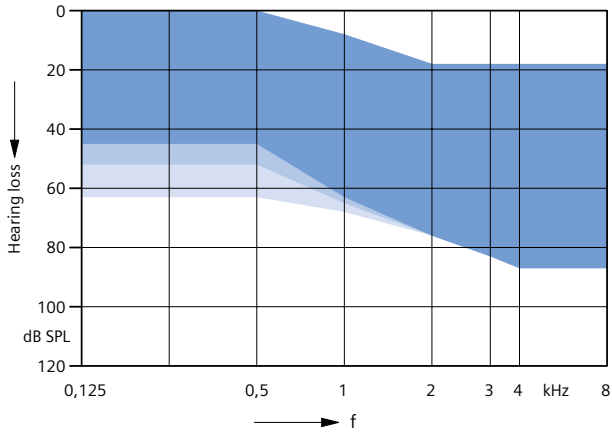
Type	S-Receiver		M-Receiver	
				
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	-	109 dB SPL	-	123 dB SPL
Peak	108 dB SPL	119 dB SPL	119 dB SPL	129 dB SPL
HFA-OSPL 90	101 dB SPL	-	113 dB SPL	-
Gain				
Full-on gain (FOG) at 1.6 kHz	-	43 dB	-	55 dB
Full-on gain (peak)	45 dB	56 dB	60 dB	70 dB
HFA-FOG	37 dB	-	50 dB	-
Reference test gain	24 dB	34 dB	36 dB	48 dB
Frequency, noise and directivity				
Frequency range 80 °C 60 °C	100 - 10000 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz	100 - 9000 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz
Equivalent input noise	18 dB SPL	19 dB SPL	19 dB SPL	23 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	1 / 1 / 1 %	1 / 1 / 2 %	1 / 1 / 2 %	1 / 2 / 1 %
AI-DI	4.0 dB		4.0 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	-	73 dB	-	84 dB
HFA MASL (1 mA/m)	66 dB	-	78 dB	-
HFA SPLITS (left/right)	82 / 83 dB	-	91 / 92 dB	-
RSETS (left/right)	-2 / -1 dB	-	-5 / -4 dB	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	0.9 mA		1.1 mA	
Battery life (cell zinc air)	~250 h		~200 h	
Battery life (rechargeable)	>16 h		up to 16 h	
IRIL IEC 118-13:2004 (bystander)				
800-960 MHz	< -6 dB		< -6 dB	
1400-2000 MHz	< -17 dB		< -17 dB	
ANSI C63.19	M4 / T4		M4 / T4	

# Trax 42 XM · Technical Data

Type	P-Receiver		HP-Receiver	
				
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
Output sound pressure level				
at 1.6 kHz	-	128 dB SPL	-	137 dB SPL
Peak	124 dB SPL	134 dB SPL	130 dB SPL	138 dB SPL
HFA-OSPL 90	119 dB SPL	-	123 dB SPL	-
Gain				
Full-on gain (FOG) at 1.6 kHz	-	70 dB	-	82 dB
Full-on gain (peak)	70 dB	80 dB	75 dB	82 dB
HFA-FOG	63 dB	-	68 dB	-
Reference test gain	42 dB	53 dB	46 dB	62 dB
Frequency, noise and directivity				
Frequency range 80 4° 60 4°	100 - 7500 Hz 100 - 7500 Hz	100 - 8100 Hz 100 - 8100 Hz	100 - 7300 Hz 100 - 7300 Hz	250 - 6100 Hz 250 - 6100 Hz
Equivalent input noise	18 dB SPL	20 dB SPL	16 dB SPL	12 dB SPL
Total harmonic distortion at 500 / 800 / 1600 Hz	1 / 2 / 1 %	3 / 3 / 2 %	1 / 2 / 1 %	2 / 2 / 1 %
AI-DI	4.0 dB		4.0 dB	
Inductive coil sensitivity				
MASL (1 mA/m) at 1.6 kHz	-	89 dB	-	101 dB
HFA MASL (1 mA/m)	83 dB	-	87 dB	-
HFA SPLITS (left/right)	99 / 100 dB	-	102 / 103 dB	-
RSETS (left/right)	-3 / -2 dB	-	-4 / -3 dB	-
Battery				
Battery voltage	1.3 V		1.3 V	
Battery current drain	1.0 mA		1.1 mA	
Battery life (cell zinc air)	~220 h		~200 h	
Battery life (rechargeable)	up to 16 h		-	
IRIL IEC 118-13:2004 (bystander)				
800-960 MHz	< -6 dB		< -6 dB	
1400-2000 MHz	< -17 dB		< -17 dB	
ANSI C63.19	M4 / T4		M4 / T4	

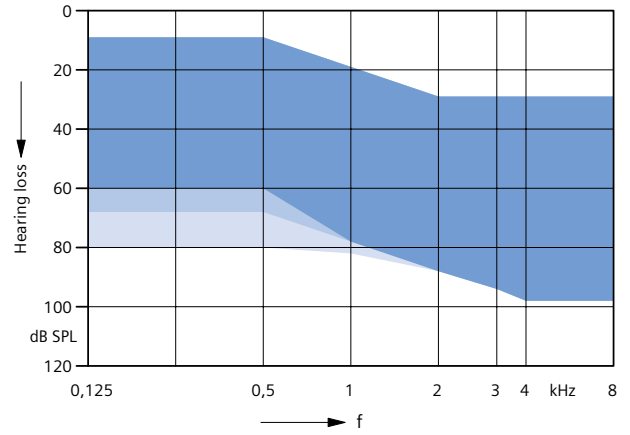
# Fitting Range

## S-Receiver



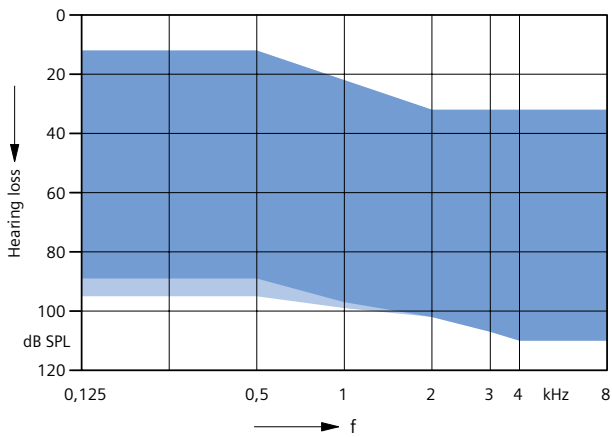
Open Click Domes  
 +  Closed Click Domes  
 +  +  Click Mold (no vent)

## M-Receiver



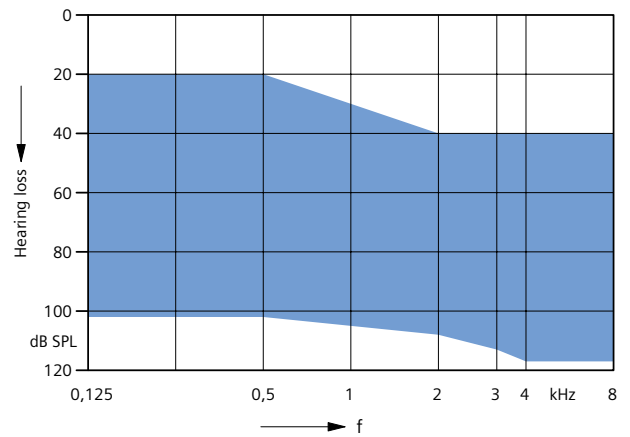
Open Click Domes  
 +  Closed Click Domes  
 +  +  Click Mold (no vent)

## P-Receiver



Double Click Domes  
 +  Click Mold (no vent)

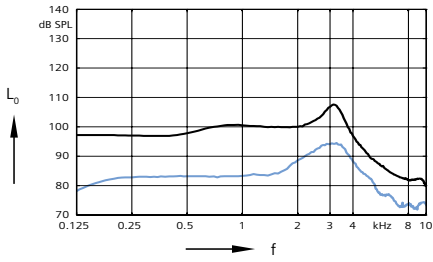
## HP-Receiver



Custom Shell (no vent)

# S-Receiver (Closed Click Dome) · Basic Data

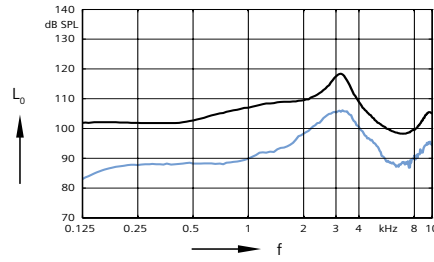
## 2 ccm coupler



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

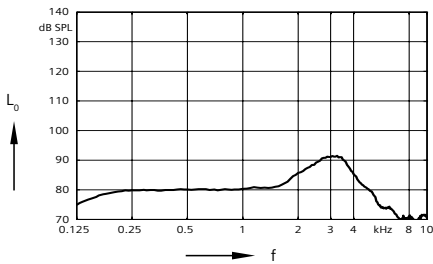
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

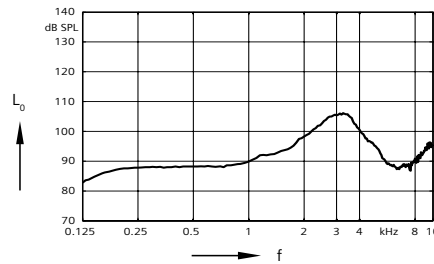


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)

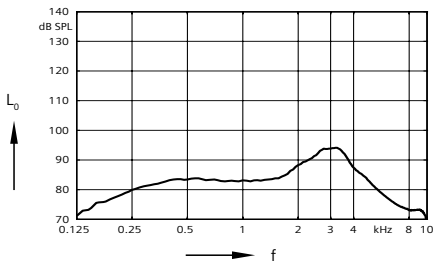


Frequency response  
( $L_1 = 60$  dB)

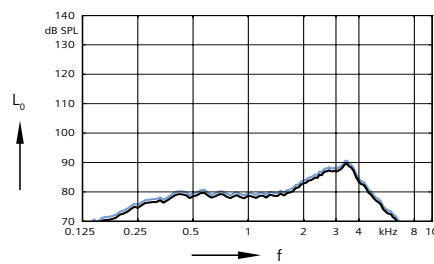


Basic acoustic response  
( $L_1 = 60$  dB)

## Inductive response



Inductive response  
( $H = 10$  mA/m)

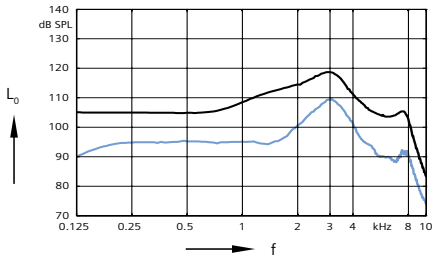


SPLITs curve left  
( $H = 31.6$  mA/m)

SPLITs curve right  
( $H = 31.6$  mA/m)

# M-Receiver (Closed Click Dome) · Basic Data

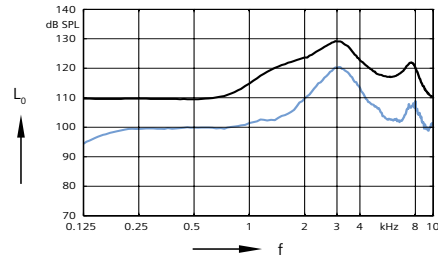
## 2 ccm coupler



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

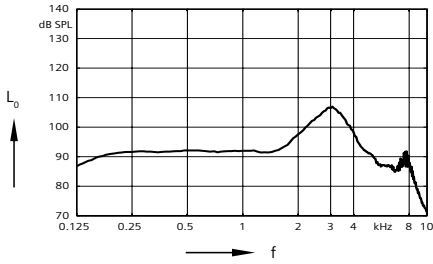
Full on gain  
( $L_i = 50$  dB)

## Ear simulator

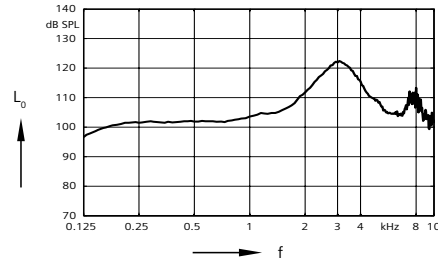


Output sound pressure level  
( $L_i = 90$  dB)

Full on gain  
( $L_i = 50$  dB)

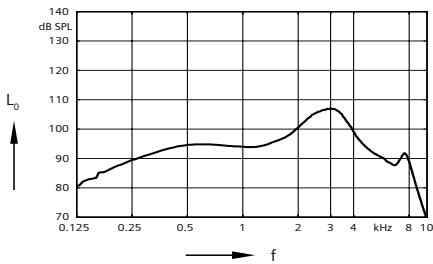


Frequency response  
( $L_i = 60$  dB)

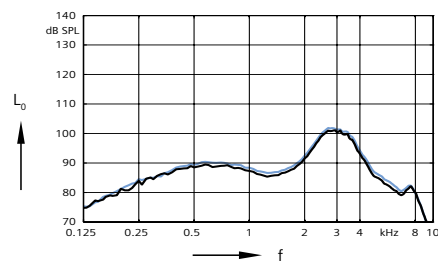


Basic acoustic response  
( $L_i = 60$  dB)

## Inductive response



Inductive response  
( $H = 10$  mA/m)

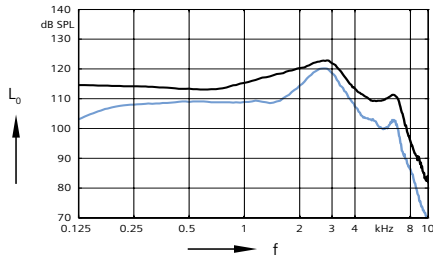


SPLITs curve left  
( $H = 31.6$  mA/m)

SPLITs curve right  
( $H = 31.6$  mA/m)

# P-Receiver (Click Mold) · Basic Data

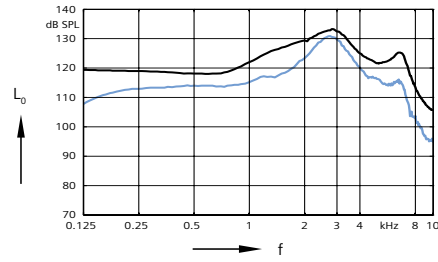
## 2 ccm coupler



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

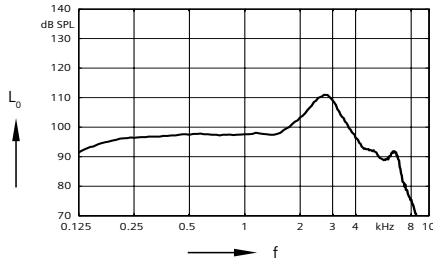
Full on gain  
( $L_1 = 50$  dB)

## Ear simulator

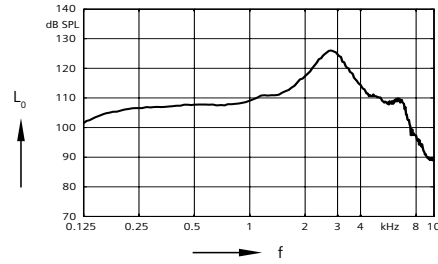


Output sound pressure level  
( $L_1 = 90$  dB)

Full on gain  
( $L_1 = 50$  dB)

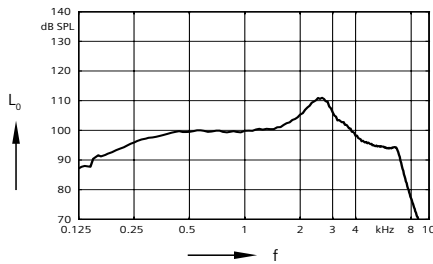


Frequency response  
( $L_1 = 60$  dB)

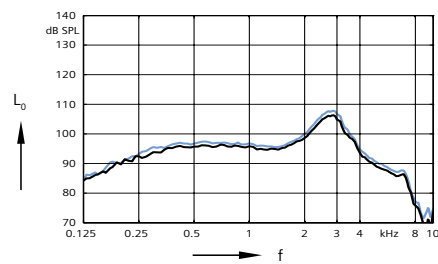


Basic acoustic response  
( $L_1 = 60$  dB)

## Inductive response



Inductive response  
( $H = 10$  mA/m)

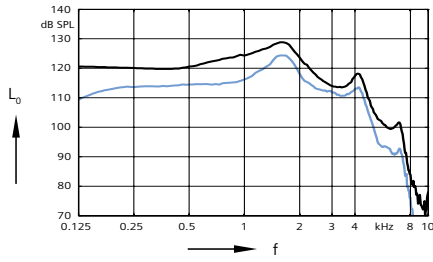


SPLITs curve left  
( $H = 31.6$  mA/m)

SPLITs curve right  
( $H = 31.6$  mA/m)

# HP-Receiver (Custom Shell) · Basic Data

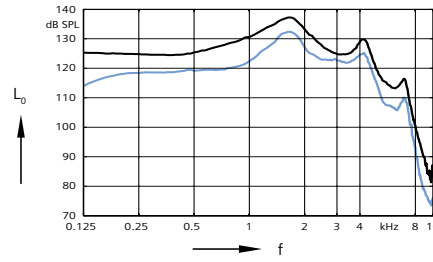
## 2 ccm coupler



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

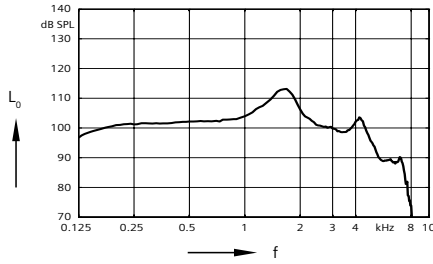
Full on gain  
( $L_i = 50$  dB)

## Ear simulator

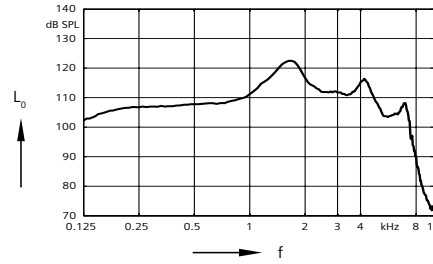


Output sound pressure level  
( $L_i = 90$  dB)

Full on gain  
( $L_i = 50$  dB)

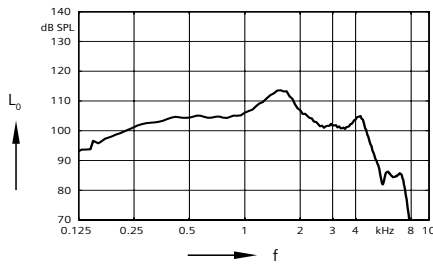


Frequency response  
( $L_i = 60$  dB)

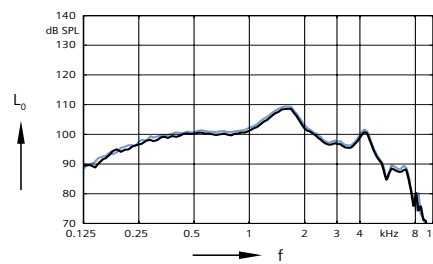


Basic acoustic response  
( $L_i = 60$  dB)

## Inductive response



Inductive response  
( $H = 10$  mA/m)



SPLITs curve left  
( $H = 31.6$  mA/m)

SPLITs curve right  
( $H = 31.6$  mA/m)





# [Trax 42 XM]

## 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.
- ▶ All measurements with an ear simulator were performed according to IEC 118-0/A1 and to DIN 45605 (frequency range).
- ▶ The following ear pieces were used:
  - S-Receiver Unit and M-Receiver Unit: Closed Click Dome
  - P-Receiver Unit: Click Mold
  - HP-Receiver Unit: Custom Shell

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.

#### WARNING

Choking hazard posed by small parts.

- ▶ This instrument is not intended for the fitting of infants, small children or 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.