



Emerald S 8C

Smart Demo Emerald S 8C



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Data Sheet
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Emerald S 8C · Technical Data

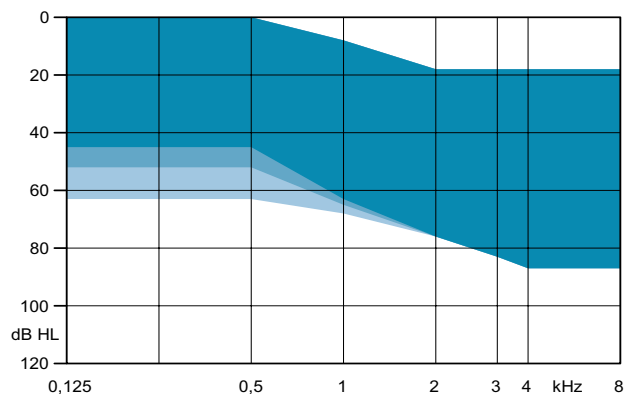
Type	S-Receiver		M-Receiver	
				
Output sound pressure level	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
at 1.6 kHz	-	109 dB SPL	-	123 dB SPL
Peak	108 dB SPL	119 dB SPL	119 dB SPL	129 dB SPL
HFA-OSPL 90	101 dB SPL	-	113 dB SPL	-
Gain				
Full on gain (FOG) at 1.6 kHz	-	43 dB	-	55 dB
Full 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 8C 60 8C / 40 8C	100 - 10000 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz	100 - 9400 Hz 100 - 8200 Hz	100 - 10000 Hz 100 - 8300 Hz
Equivalent input noise	19 dB SPL	20 dB SPL	19 dB SPL	23 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 1 / 1 / 1 %	1 / 1 / 2 / - %	1 / 2 / 1 / 1 %	2 / 3 / 2 / - %
Tinnitus Function broadband	65 dB SPL	-	70 dB SPL	-
AI-DI	4.0 dB		4.0 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	1.2 mA	1.2 mA	1.4 mA	1.4 mA
Battery life (cell zinc air)	~70 h		~67 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	

Emerald S 8C · Technical Data

Type	P-Receiver		HP-Receiver	
				
Output sound pressure level	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
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 8C	100 - 7500 Hz	100 - 8100 Hz	100 - 7300 Hz	250 - 6100 Hz
60 8C / 40 8C	100 - 7500 Hz	100 - 8100 Hz	100 - 7300 Hz	250 - 6100 Hz
Equivalent input noise	18 dB SPL	21 dB SPL	16 dB SPL	12 dB SPL
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	1 / 2 / 1 / 1 %	3 / 4 / 2 / - %	1 / 2 / 1 / 1 %	2 / 2 / 1 / - %
Tinnitus Function broadband	75 dB SPL	-	85 dB SPL	-
AI-DI	4.0 dB		4.0 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)	~67 h		~67 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	

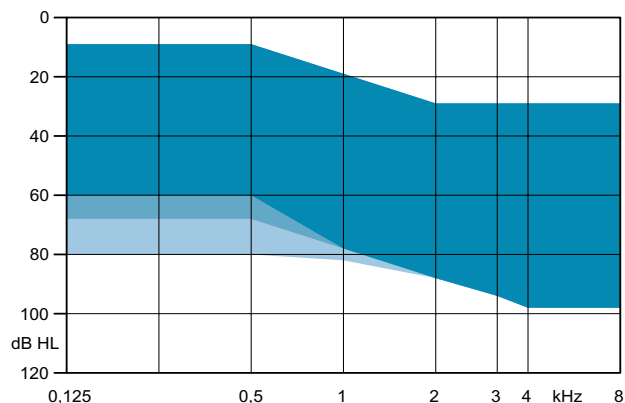
Fitting Range

S-Receiver



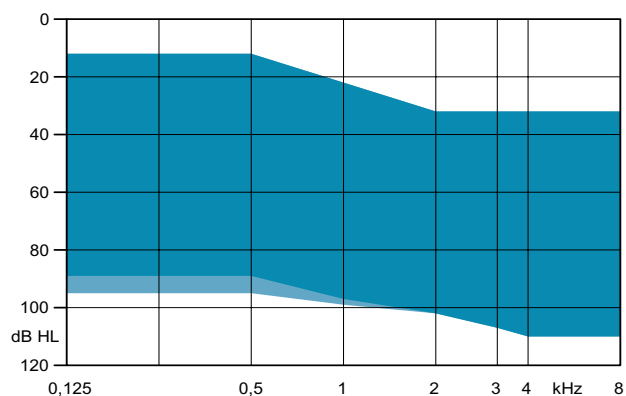
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

M-Receiver



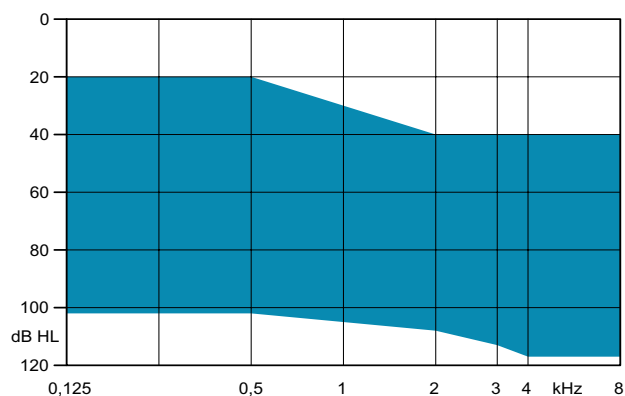
Open Click Domes
 + Closed Click Domes
 + + Click Mold (no vent)

P-Receiver



Double Click Domes
 + Click Mold (no vent)

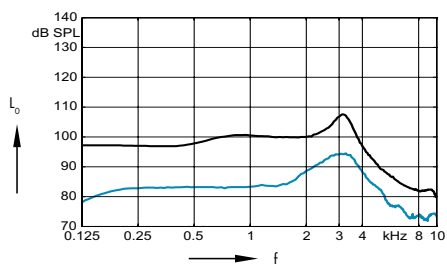
HP-Receiver



Custom Shell (no vent)

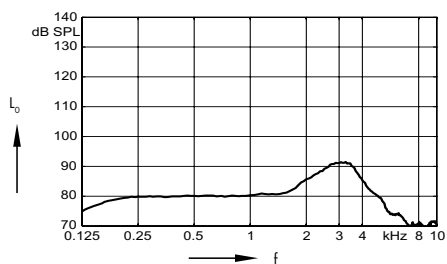
S-Receiver (Closed Click Dome) · Basic Data

2 ccm coupler



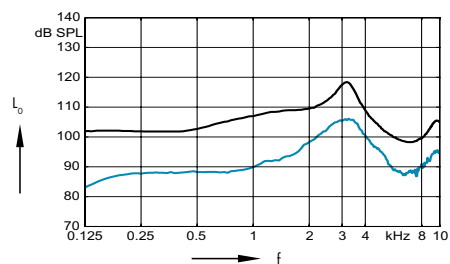
Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)



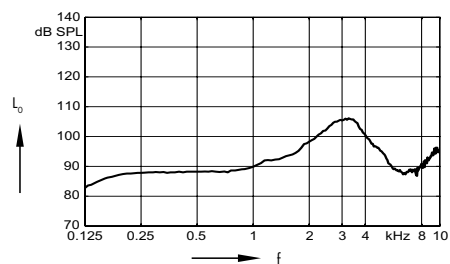
Frequency response
($L_1 = 60$ dB)

Ear simulator



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

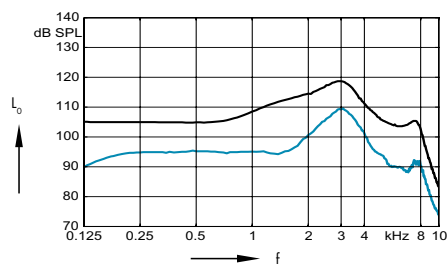
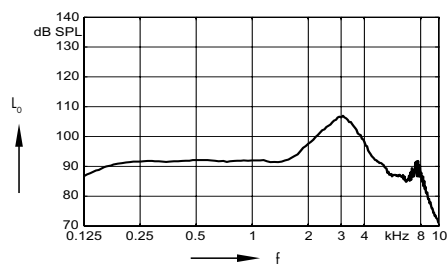
Full on gain
($L_1 = 50$ dB)



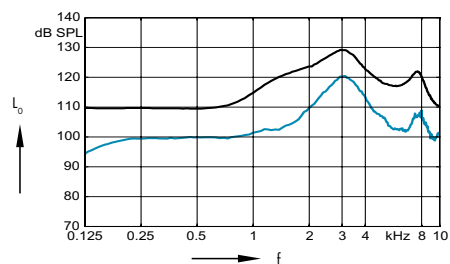
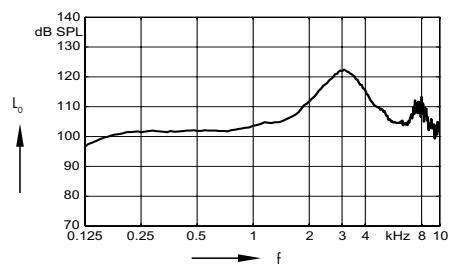
Basic acoustic response
($L_1 = 60$ dB)

M-Receiver (Closed Click Dome) · Basic Data

2 ccm coupler

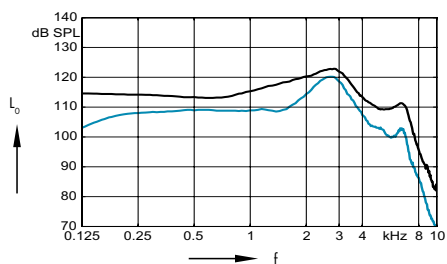


Ear simulator



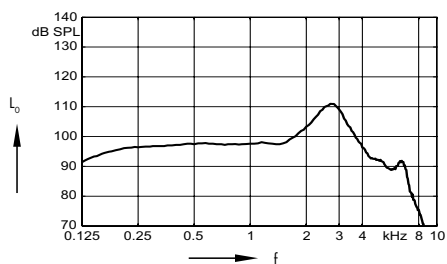
P-Receiver (Closed mold) · Basic Data

2 ccm coupler



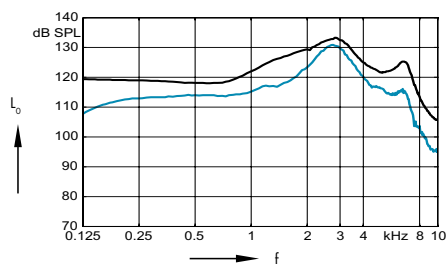
Output sound pressure level
($L_1 = 90$ dB)

Full on gain
($L_1 = 50$ dB)



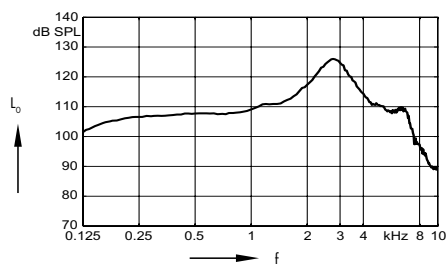
Frequency response
($L_1 = 60$ dB)

Ear simulator



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

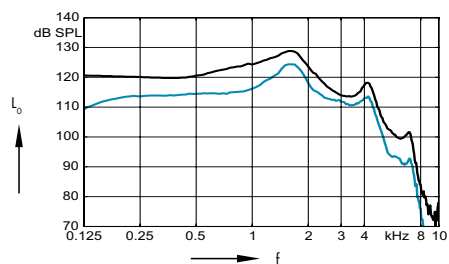
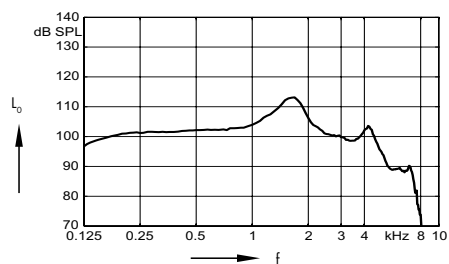
Full on gain
($L_1 = 50$ dB)



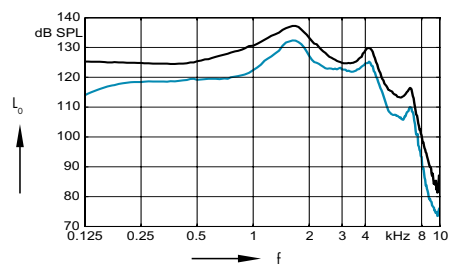
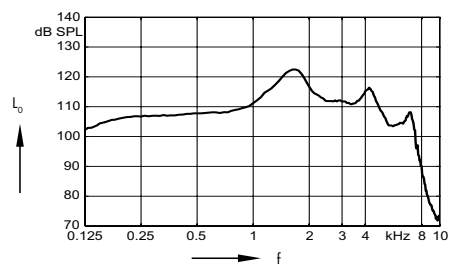
Basic acoustic response
($L_1 = 60$ dB)

HP-Receiver (Custom Shell) · Basic Data

2 ccm coupler



Ear simulator



Emerald S 8C | Features and Accessories

MyCore Platform	80 8C	60 8C	40 8C
Signal processing (channels) / Gain/MPO (handles)	48 / 20	32 / 16	24 / 12
Hearing programs	6	6	6
Direct Audio Streaming ¹⁾ / Made for iPhone	●	●	●
My Voice ²⁾	●	●	●
Wireless Sync ²⁾	●	●	●
Volume and control coupling ²⁾	●	●	●
MyCore Speech			
HD Bandwidth (up to 10 kHz)	●	—	—
iFocus 360 ²⁾	automatic	manual	—
Focus 360	●	●	—
HD Directionality	●	●	—
Stereo iLock ²⁾	●	—	—
Directional iLock ²⁾	Premium	Premium	Standard
Voice Ranger	●	●	●
XPhone ²⁾	●	●	●
Multichannel Adaptive Directional Microphone	●	●	●
Automatic Directional Microphone	●	●	●
Fixed Directional Microphone	●	●	●
Bandwidth Compression	●	●	●
Intelligent Feedback Preventer	●	●	●
MyCore Sound Quality and Comfort			
Dynamic Extender	●	●	●
Auto Volume ³⁾	●	●	●
Microphone-pattern adjustment ^{2),4)}	Premium	High	—
Reverb Reducer	●	—	—
Music Enhancer	Premium	High	—
iOmni	●	●	●
Sound Smoothing (settings)	3	3	on/off
Intelligent Wind Noise Cancellation ²⁾	Premium	High	—
Wind Noise Cancellation	●	●	●
Noise Management	●	●	●
Tinnitus Sound Function ⁵⁾ (presets)	6	6	6
Tinnitus Notch Function ⁵⁾	●	●	●
MyCore Automatic Optimization			
Smart Automatic Equalizer	Premium	Premium	High
Smart Automatic Acclimatization	Premium	Premium	High
Automatic Classifier	●	●	●
Data Logging	●	●	●

¹⁾ Apple iPhones 5 and later

²⁾ Bilateral fitting required

³⁾ Streaming only

⁴⁾ requires Connexx Smart Direct App

⁵⁾ Availability is country-dependent

● available — not available

Performance levels: Premium High Standard

Emerald S 8C | Features and Accessories

Style specific features	
SecureTec protection	IP68
Charging contacts	–
Battery Size	312
Battery door on/off function	●
Nanocoated housing	●
Wireless programming	●
Instrument configurations	
Flat cover	–
Rotary volume control	–
Push button	–
Rocker switch	●
Color conversion kit	○
Battery door - integrated telecoil	–
Battery door - child lock	–
Small earhook	–
Programming accessories	
ConnexxAir, ConnexxLink	–
Noahlink Wireless	●
Programming adapter / cable	size 312
Accessories	
Connexx Smart Key	○
Connexx Smart Transmitter 2,4	○
Connexx Smart Mic	○
Apps	
Connexx Smart Direct App	○

● available ○ optional – not available

Emerald S 8C

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
SPLIV	SPL In a Vertical magnetic field
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 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.
- ▶ 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.
- ▶ The following acoustic connections / ear pieces were used:
 - S-Receiver Unit and M-Receiver Unit: Closed Click Dome
 - P-Receiver Unit: Click Mold
 - HP-Receiver Unit: Custom Shell



„Made for iPhone“ means that an electronic accessory has been designed to connect specifically to iPhone 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 iPhone 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.

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Subject to change without prior notice

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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 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.

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