# M-Core B-Li-M

M-Core B-Li-M SDemo

**DATA SHEET** 

80

60

40

**30** 

20





Made for **≰iPhone** | **iPad** | **iPod** 

#### **Earhook**

- 60 dB / 133 dB SPL (2 ccm coupler)
- 67 dB / 138 dB SPL (ear simulator)

#### ThinTube 3.0

- 60 dB / 125 dB SPL (2 ccm coupler)
- 64 dB / 129 dB SPL (ear simulator)

#### ThinTube 3.0 P

- 63 dB / 126 dB SPL (2 ccm coupler)
- 68 dB / 131 dB SPL (ear simulator)

## M-Core B-Li-M · Technical Data

Туре	Earhook		
	2 ccm coupler	Ear simulator	
Output sound pressure level			
OSPL 90 at 1.6 kHz	_	137 dB SPL	
OSPL 90 (Peak)	133 dB SPL	138 dB SPL	
HFA-OSPL 90	125 dB SPL	_	
Gain			
FOG at 1.6 kHz	_	63 dB	
FOG (peak)	60 dB	67 dB	
HFA-FOG	53 dB	-	
Reference test gain	48 dB	56 dB	
Frequency, noise and directivity			
Frequency range 80 60 / 40 / 30 / 20	120 - 7700 Hz 120 - 7700 Hz	940 - 7700 Hz 940 - 7700 Hz	
Equivalent input noise	16 dB SPL	16 dB SPL	
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	4/3/1/1%	4/3/1/-%	
Tinnitus Function broadband	70 dB SPL	-	
AI-DI	4.0 dB		
Latency	< 15 ms		
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 runtime (without streaming)	up to 24 h		
Battery runtime (incl. 5 h streaming)	up to	21 h	
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)	N	<u> 4</u>	

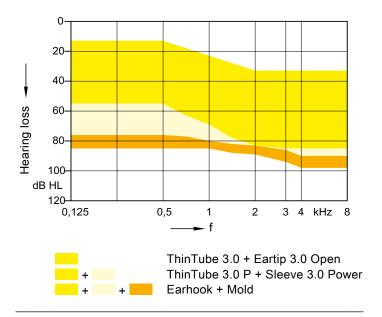
Please find additional information to the values on page "Further Information".

## M-Core B-Li-M · Technical Data

Туре	ThinTube 3.0		ThinTube 3.0 P		
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator	
Output sound pressure level					
OSPL 90 at 1.6 kHz	_	121 dB SPL	_	126 dB SPL	
OSPL 90 (Peak)	125 dB SPL	129 dB SPL	126 dB SPL	131 dB SPL	
HFA-OSPL 90	116 dB SPL	_	121 dB SPL	-	
Gain					
FOG at 1.6 kHz		53 dB	_	59 dB	
FOG (peak)	60 dB	64 dB	63 dB	68 dB	
HFA-FOG	50 dB	_	56 dB	_	
Reference test gain	39 dB	45 dB	44 dB	50 dB	
Frequency, noise and directivity					
Frequency range 80 60 / 40 / 30 / 20	100 - 8100 Hz 100 - 8100 Hz	100 - 9500 Hz 100 - 8300 Hz	100 - 7200 Hz 100 - 7200 Hz	100 - 7400 Hz 100 - 7400 Hz	
Equivalent input noise	18 dB SPL	19 dB SPL	15 dB SPL	17 dB SPL	
Total harmonic distortion at 500 / 800 / 1600 / 3200 Hz	2/1/1/1%	4/2/2/-%	3/1/1/1%	4/3/1/-%	
Tinnitus Function broadband	70 dB SPL	<del>-</del>	70 dB SPL	_	
AI-DI	4.0 dB		4.0 dB		
Latency	< 15	5 ms	< 15 ms		
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	_	<del>-</del>	_	_	
Battery					
Battery runtime (without streaming)	up to 24 h		up to 24 h		
Battery runtime (incl. 5 h streaming)	up to 21 h		up to 21 h		
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		

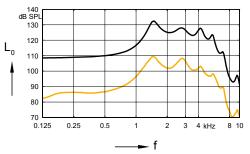
Please find additional information to the values on page "Further Information".

# M-Core B-Li-M · Fitting Range



## Earhook · Basic Data

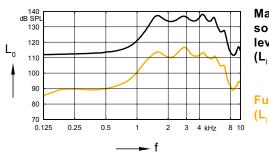
#### 2 ccm coupler



Max. Output sound pressure level  $(L_{i} = 90 \text{ dB})$ 

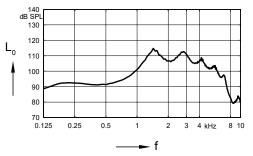
Full on gain  $(L_1 = 50 \text{ dB})$ 

## Ear simulator

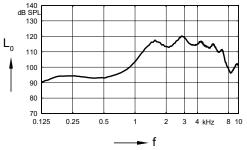


Max. Output sound pressure level  $(L_1 = 90 dB)$ 

Full on gain  $(L_1 = 50 \text{ dB})$ 



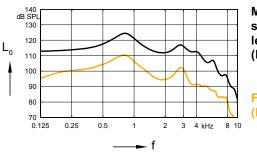
Frequency response  $(L_{i} = 60 \text{ dB})$ 



**Basic acoustic** response  $(L_{i} = 60 \text{ dB})$ 

## ThinTube 3.0 · Basic Data

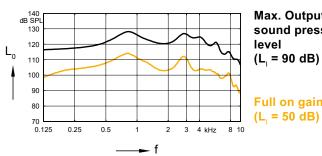
#### 2 ccm coupler



Max. Output sound pressure level  $(L_{i} = 90 \text{ dB})$ 

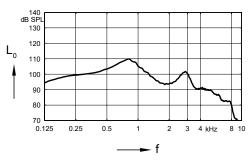
Full on gain  $(L_1 = 50 \text{ dB})$ 

#### Ear simulator

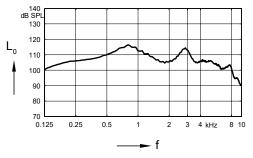


Max. Output sound pressure

Full on gain  $(L_1 = 50 \text{ dB})$ 



Frequency response  $(L_{i} = 60 \text{ dB})$ 



**Basic acoustic** response  $(L_{i} = 60 \text{ dB})$ 

## ThinTube 3.0 P · Basic Data

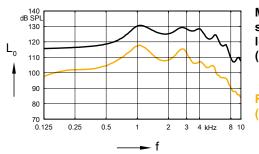
#### 2 ccm coupler

#### 140 dB SPL 130 120 110 100 90 80 70 0.125 2 3 4 kHz **→** f

Max. Output sound pressure level  $(L_{i} = 90 \text{ dB})$ 

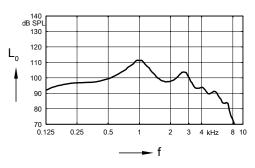
Full on gain  $(L_1 = 50 \text{ dB})$ 

#### Ear simulator

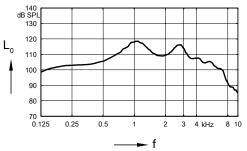


Max. Output sound pressure level  $(L_1 = 90 dB)$ 

Full on gain  $(L_1 = 50 \text{ dB})$ 



Frequency response  $(L_{i} = 60 \text{ dB})$ 



**Basic acoustic** response  $(L_1 = 60 \text{ dB})$ 

## M-Core B-Li-M · Features and Accessories

	80	60	40	30	20
Features					
Channels / Controls / Programs	48 / 20 / 6	32 / 16 / 6	24 / 12 / 6	16 / 8 / 4	16 / 8 / 4
Soundpro	High Res	High Res	High Res	High Res	High Res
My Voice (own voice processing)	•	•	•	_	
Direct Streaming / Auto Volume	Made for iPhone via TV Transmitter & Smart Mic /	Made for iPhone via TV Transmitter & Smart Mic /	Made for iPhone via TV Transmitter & Smart Mic /	Made for iPhone via TV Transmitter & Smart Mic /	Made for iPhone via TV Transmitter & Smart Mic /
	Auto Volume	Auto Volume	Auto Volume	Auto Volume	Auto Volume
Wireless Sync	•	•	•	•	•
Directionality	Automatic Adaptive, iOmni, Front & Back, Left & Right, Narrow	Automatic Adaptive, iOmni, Front & Back	Automatic Adaptive, iOmni	Automatic Adaptive	Automatic Adaptive
Noise Reduction	Noise Management, Sound Smoothing, Directional	Noise Management, Sound Smoothing Directional	Noise Management, Sound Smoothing	Noise Management, Sound Smoothing	Noise Management
Wind Noise Reduction	Standard Binaural	Standard Binaural	Standard	Standard	_
Reverb Reducer	•	_	_	_	_
Bandwidth: Extension / Compression	• / •	<b>-/●</b>	<b>—</b> / ●	<i>—1</i> ●	<b>/●</b>
Music Enhancer (Live / Recorded / Playing)	•	•	_	_	_
Tinnitus Function	Sound Therapy, Notch Therapy	Sound Therapy, Notch Therapy	Sound Therapy, Notch Therapy	Sound Therapy, Notch Therapy	_
XPhone	•	•	•	_	_
Acclimatization / Data Logging	• / •	• / •	• / •	• / •	• / •
T-Coil	<del></del>	_	_	_	_
Small earhook	0	0	0	0	0
Ingress Protection Rating	IP68	IP68	IP68	IP68	IP68
Accessories					
Charging Station	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Smart Key	0	0	0	0	0
Smart Transmitter 2,4	0	0	0	0	0
Smart Mic	0	0	0	0	0
Rexton APP	0	0	0	0	0
M-Core CROS R	0	0	0	_	_
M-Core CROS R-Li	0	0	0	_	_
M-Core CROS iX-CIC		_			

<sup>●</sup> available — not available O optional

## M-Core B-Li-M · Further information

#### **Abbreviations**

The following abbreviations are used in this datasheet:

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 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 and additional information

- ▶ 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.
- ▶ 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 instruments 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 streaming) two different conditions are considered.
- ► Extended bandwidth up to 10 kHz for 80 devices only.
- ▶ The following acoustic connections / ear pieces were used:
  - Earhook
  - ThinTube 3.0
  - ThinTube 3.0 P

#### 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.

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.