

TEBM28C10-4B Datasheet

1. Overview

The TEBM28C10-4B Balanced Mode Radiator (BMR[®]) is an audio drive unit with an extended frequency range and wide directivity. The small form-factor is ideally suited for compact products that require a full-range drive unit, room filling sound and a high-performance acoustic solution.

- Power Handling: 10 W
- Nominal Impedance: 3.8 Ω

- 55 mm Dia x 24 mm Depth
- 58 g Mass





Figure 1.1

*Product code and manufacture date i printed at the back of the return cup

2. Applications

- Full-range Compact Systems
- Conferencing Systems
- Bluetooth Audio

- Smart Speakers
- Gaming Devices
- IoT Devices

3. Specifications

Transducer Performance			Parameter	Nominal	Unit	
Frequency Response (±6dB)	150Hz ~ 20kHz		Fs	145	Hz	
Sensitivity	80	dp	Sd	8.55	cm ²	
(1 W / 1 m)	80	uв	Mms	1.19	g	
Rated Maximum SPL (1 Meter)	90	dB	Cms	1.0	mm/N	
Nominal Impedance	3.8	Ω	Rms	0.31	N*s/m	
Power Handling (IEC268-5)	10	W	Re	3.8	Ω	
Operating Temperature	-20 to +55	°C	BL	2.9	T*m	
Voice Coil Diameter	19.05	mm	Le	0.10	mH	
Voice Coil Material	Copper		Qts	0.44		
Diaphragm Material	Doped Paper Co	omposite				
Max Linear Excursion*	2.8 mm Peak to	peak				
Max Mechanical Excursion	8 mm Peak to peak		Max Surrou	Max Surround Frontal Movement		

*From Klippel LSI

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3.1. On-Axis SPL and Impedance (Measured)



Figure 3.1.1 - Red: On-Axis SPL at 1W/1m (1/3-octave smoothed/spliced*/anechoic). Blue: Electrical Impedance





Figure 3.2.1 - Sound power calculated from SPL measurements, 1W/1m (1/3-octave smoothed/spliced*)

*Acoustic measurement data is shown above spliced frequency. Lower frequency performance is derived from diaphragm scan using Polytec PSV500 scanning laser vibrometer.

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3.3. Polar Response (Measured)



Figure 3.3.1 - Polar response, angle/ dB SPL, 1W/1m (1/3-octave smoothed / anechoic)

3.4. Product Dimensions



Note:

- Volume Displacement: 13 cc
- All dimensions are in mm

Figure 3.4.1 - External product dimensions

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4. Appendix

4.1. Klippel LSI



Figure 4.1.1 – Normalized BL (x)



Figure 4.2.1 - Normalized Kms (x)

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