

**TEBM28C10-4/A Miniature BMR® Driver**

**Features**

- Full range: 100Hz – 20kHz
- Extremely wide directivity; 180°
- Nominal Impedance: 4 Ω
- Baffle: 46mm OD
- Depth: 25.8mm
- Mass: 58g

**Applications**

- Smart IoT speakers
- Portable speakers
- Sound bars and stands
- Conference speaker phone

**Parameters**

Parameter	Description	min	typ	max	Units
<b>R<sub>e</sub></b>	DC resistance	-10%	4.40	+10%	Ohms
<b>L<sub>e</sub></b>	Inductance (@ 10kHz)	-10%	0.09	+10%	mH
<b>BL</b>	Force factor	-10%	2.87	+10%	Tm
<b>f<sub>s</sub></b>	Resonant frequency	-20%	130	+20%	Hz
<b>SPL</b>	Sound Pressure Level @ 1W, 1m	78	80	81	dB
<b>dDrv</b>	Voice coil diameter	-	19.05	-	mm
<b>M<sub>ms</sub></b>	Moving mass	-10%	1.0	+10%	g
<b>C<sub>ms</sub></b>	Compliance	-12%	1.50	+12%	mmN <sup>-1</sup>
<b>R<sub>ms</sub></b>	Suspension Loss	-15%	0.31	+15%	Nsm <sup>-1</sup>
<b>X<sub>mech max</sub></b>	Maximum coil excursion (p-p)	-	8.0	-	mm
<b>Sd</b>	Effective piston area	-	8.55	-	cm <sup>2</sup>
<b>V<sub>AS</sub></b>	Equivalent volume	-	0.15	-	L
<b>Q<sub>ms</sub></b>	Mechanical quality factor	-15%	2.74	+15%	
<b>Q<sub>es</sub></b>	Electrical quality factor	-15%	0.45	+15%	
<b>Q<sub>ts</sub></b>	Total quality factor	-20%	0.39	+20%	

**Description**

The TEBM28C10-4/A BMR® is an audio drive unit with an extended frequency response and extremely wide directivity. It combines the benefits of Tectonic bending-wave technology and pistonic modes of operation.

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.

**Operating conditions**

Condition	Value
Power handling (IEC268-5 continuous, weighted pink noise, HP filter)	10W
Preliminary operating temperature range	-20 to 55° C
Audio frequency range	100Hz to 20kHz

**Measured Response – on axis SPL**

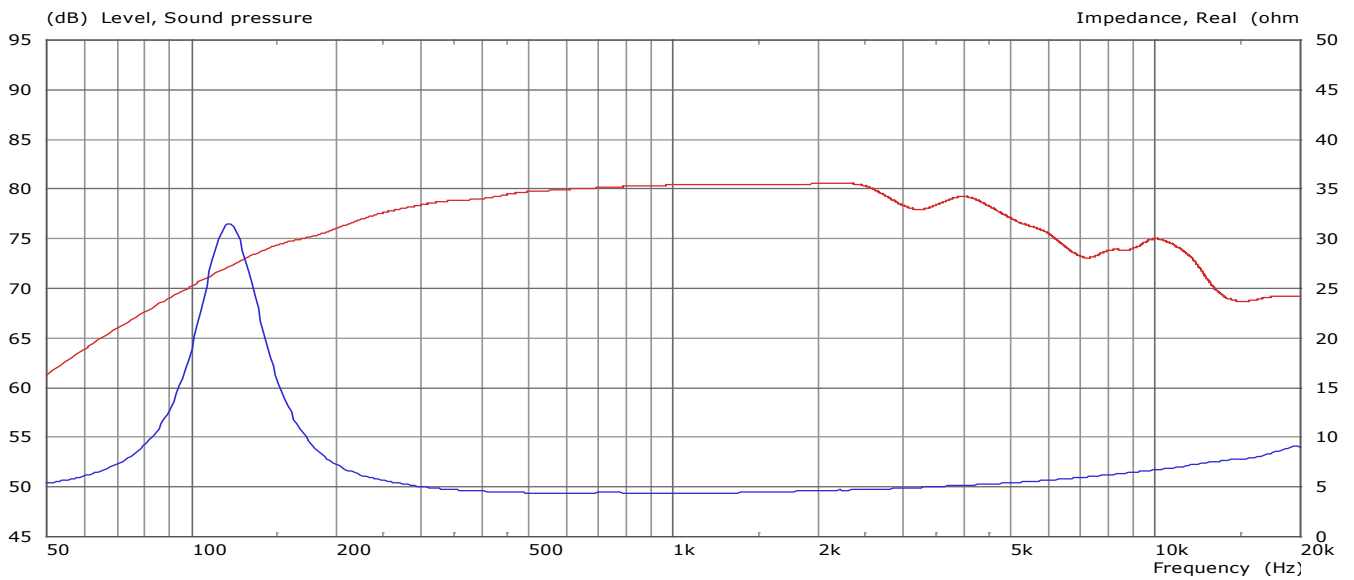


Figure 1: Red: on-axis SPL at 1W/1m (1/3-octave smoothed/spliced/ anechoic measurement). Blue: Impedance

**Measured Response –adjusted power response over frontal hemisphere**

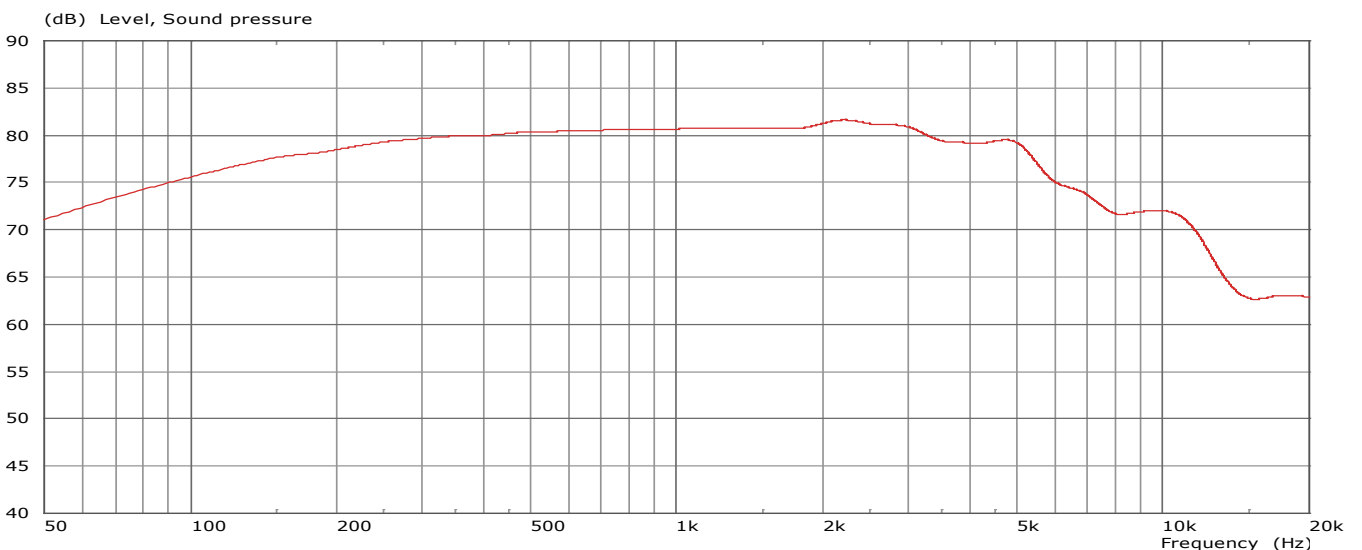
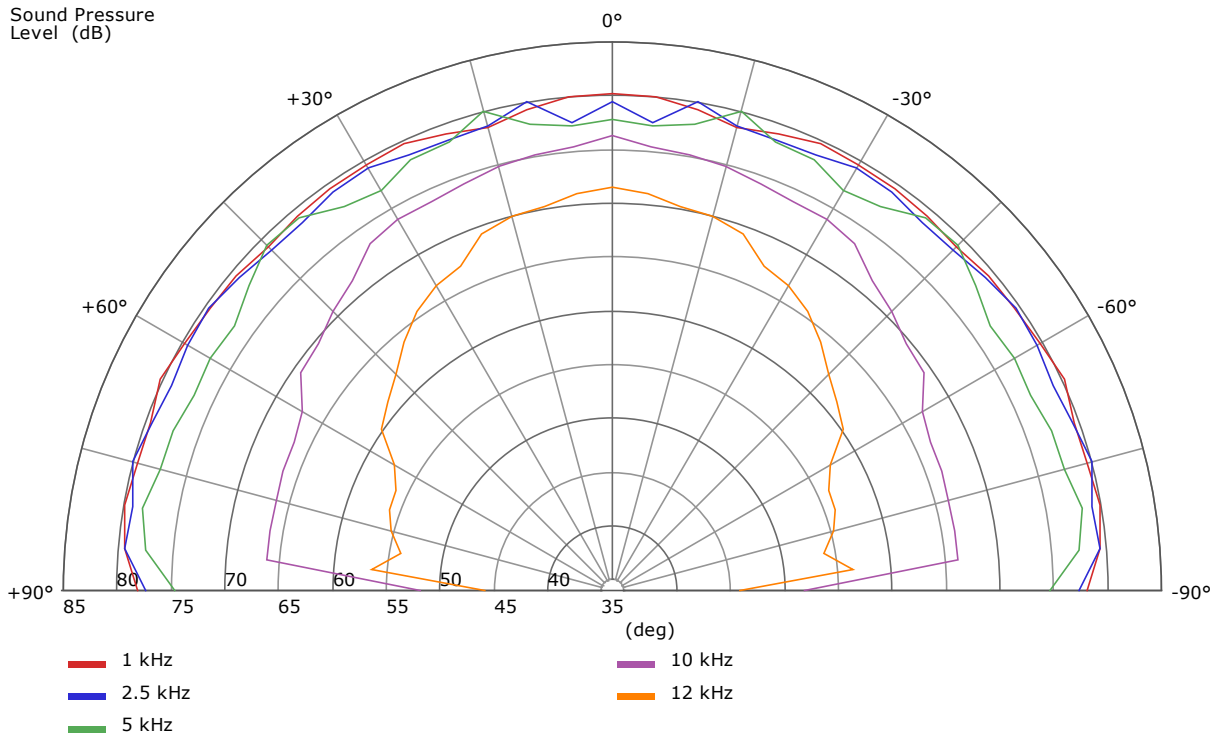


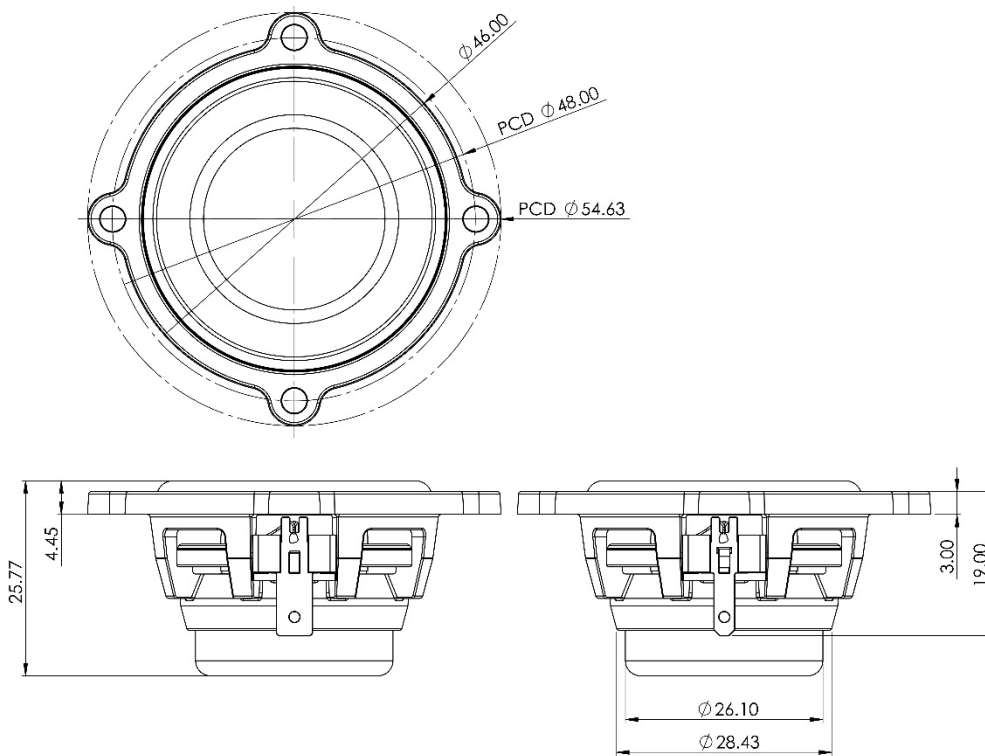
Figure 2: Power Response calculated across -90 -> +90 degrees, 1W/1m, (1/3-octave smoothed/spliced, -11dB)

**Polar – off axis acoustic measurements in anechoic chamber at various angles**



**Figure 3: Polar Response, angle/dB SPL, input level 1 Watt (1/3<sup>rd</sup> octave smoothing)**

**Outline Drawing**



**Figure 4: Nominal dimensions**

*Disclaimer: The information in this Data Sheet is subject to change without notification*

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