

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 |
|-----------------------------|-------------------------------|------|-------|------|-------------------|
| R_e | DC resistance | -10% | 4.40 | +10% | Ohms |
| L_e | Inductance (@ 10kHz) | -10% | 0.09 | +10% | mH |
| BL | Force factor | -10% | 2.87 | +10% | Tm |
| f_s | Resonant frequency | -20% | 130 | +20% | Hz |
| SPL | Sound Pressure Level @ 1W, 1m | 78 | 80 | 81 | dB |
| dDrv | Voice coil diameter | - | 19.05 | - | mm |
| M_{ms} | Moving mass | -10% | 1.0 | +10% | g |
| C_{ms} | Compliance | -12% | 1.50 | +12% | mmN ⁻¹ |
| R_{ms} | Suspension Loss | -15% | 0.31 | +15% | Nsm ⁻¹ |
| X_{mech max} | Maximum coil excursion (p-p) | - | 8.0 | - | mm |
| Sd | Effective piston area | - | 8.55 | - | cm ² |
| V_{AS} | Equivalent volume | - | 0.15 | - | L |
| Q_{ms} | Mechanical quality factor | -15% | 2.74 | +15% | |
| Q_{es} | Electrical quality factor | -15% | 0.45 | +15% | |
| Q_{ts} | 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 Elements bending-wave technology and piston 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

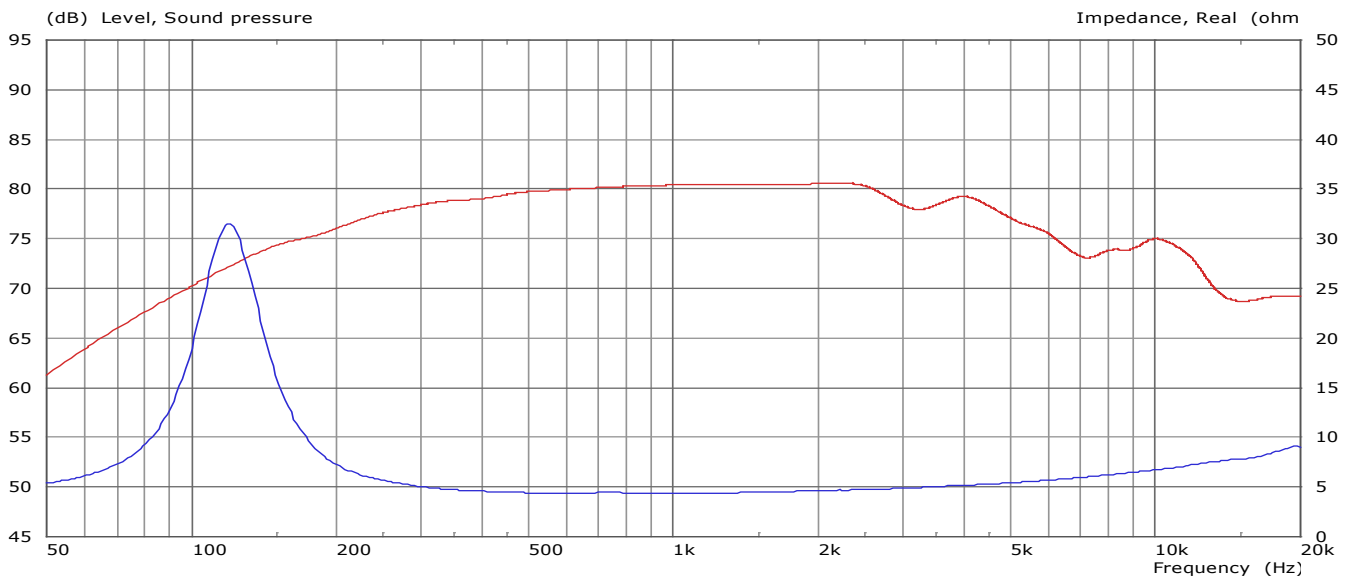


Figure 1: Red: on-axis SPL at 1W/1m (1/3-octave smoothed/spliced/ anechoic measurement). Blue: Impedance

Measured Response –adjusted power response over frontal hemisphere

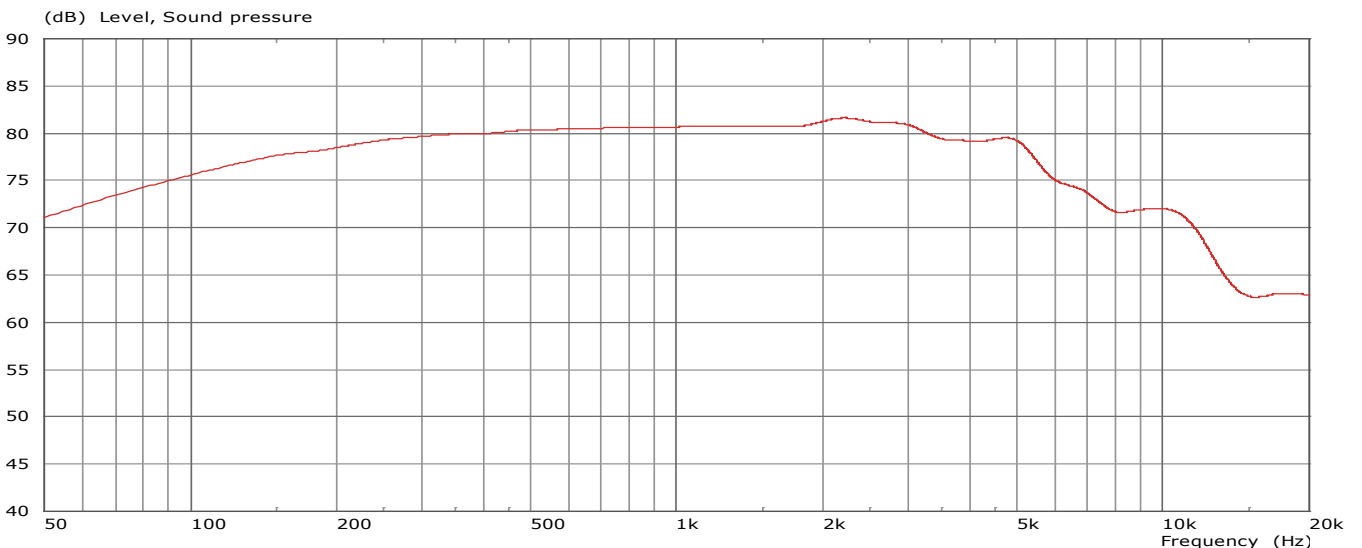


Figure 2: Power Response calculated across -90 -> +90 degrees, 1W/1m, (1/3-octave smoothed/spliced, -11dB)

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

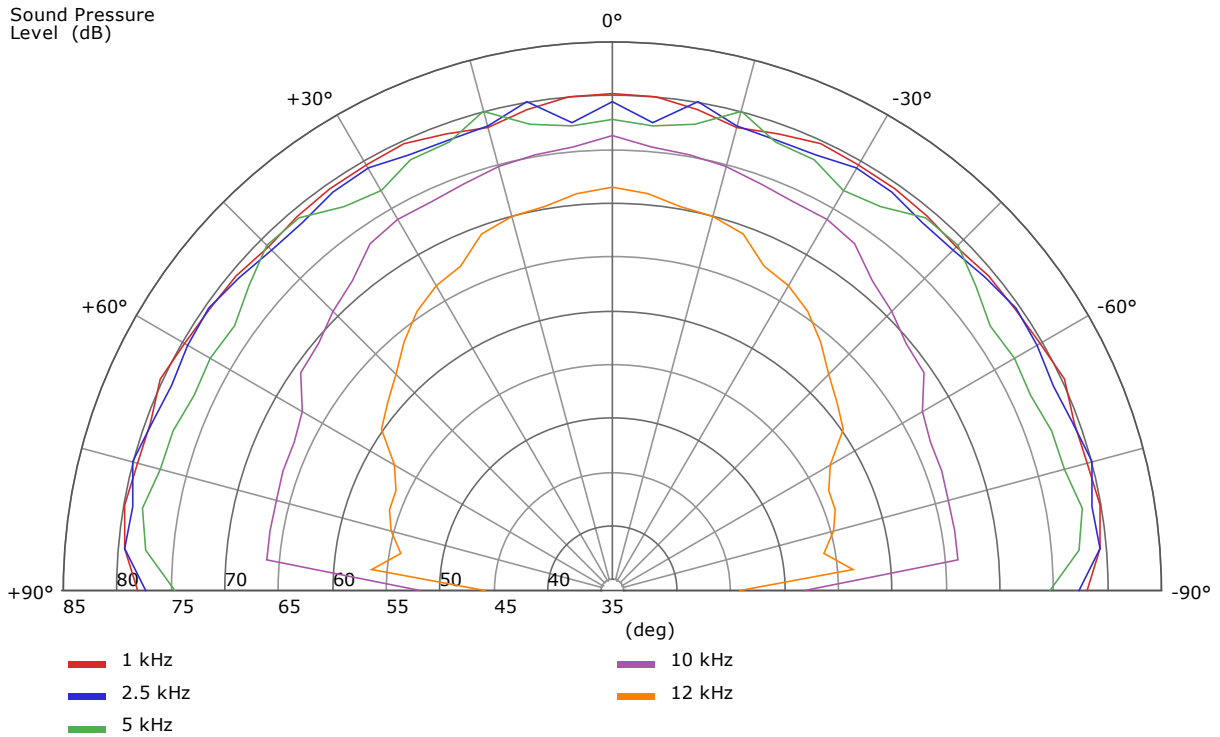


Figure 3: Polar Response, angle/dB SPL, input level 1 Watt (1/3rd octave smoothing)

Outline Drawing

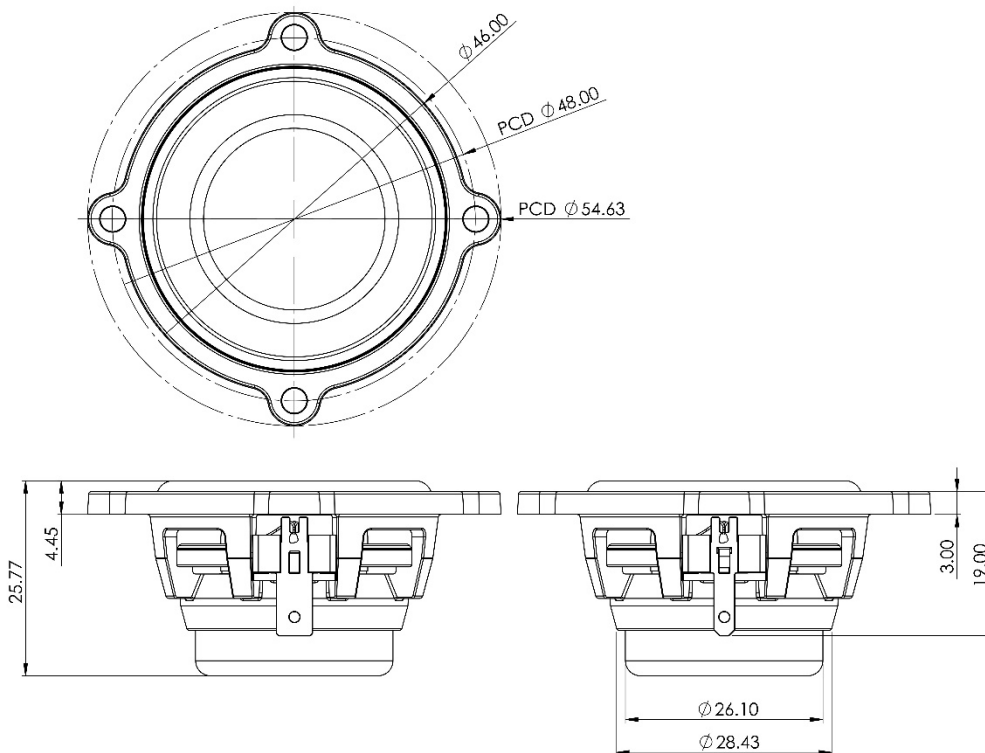


Figure 4: Nominal dimensions

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