

### TEBM36S12-8/A Balanced Mode Radiator



#### Features

- Wide bandwidth and wide directivity
- Impedance: 8Ω
- Dimensions: 65mm x 65mm
- Thickness: 29.7mm
- Mass: 88.5g

#### Applications

- Docking stations
- Table radios
- Sound bars
- Computer speakers
- Wireless speakers

#### Parameters

Parameter	Description	min	typ	max	Units
$R_e$	DC resistance	-10%	7.9	+10%	Ohms
$L_e$	Inductance	-10%	0.137	+10%	mH
<b>BL</b>	Force factor		3.87		Tm
$f_s$	Resonance frequency	-20%	148	+20%	Hz
<b>dDrv</b>	Voice coil diameter		25.4		mm
$M_{ms}$	Moving mass		1.68		g
$C_{ms}$	Compliance		0.70		mmN <sup>-1</sup>
$R_{ms}$	Suspension Loss		0.49		Nsm <sup>-1</sup>
$X_{mech\ max}$	Maximum coil excursion (p-p)		8.0		mm
$S_d$	Effective piston area		17.2		cm <sup>2</sup>
$V_{AS}$	Equivalent volume		0.29		L
$Q_{ms}$	Mechanical quality factor		3.18		
$Q_{es}$	Electrical quality factor		0.83		
$Q_{ts}$	Total quality factor		0.66		

#### Description

The TEBM36S12-8/A Balanced-Mode Radiator (BMR) is an audio drive unit with an extended frequency response and wide directivity compared with a conventional drive unit. It combines the benefits of Tectonic Elements bending-wave technology and pistonic modes of operation. It is ideally suited for compact audio applications that require a full-range, high performance acoustic solution.

This second generation drive unit has the same audio characteristics as its predecessor, with improved response smoothness and linearity at high excursion. A 4Ω version is also available.

Operating conditions

Condition	Value
Continuous power handling (weighted pink noise)	12W (TBC)
Burst power handling (weighted pink noise)	>24W (TBC)
Operating temperature range	-20 to 55° C
Audio frequency range	80Hz to 20kHz
Sound pressure level @ 1W, 1m	82dB

Response

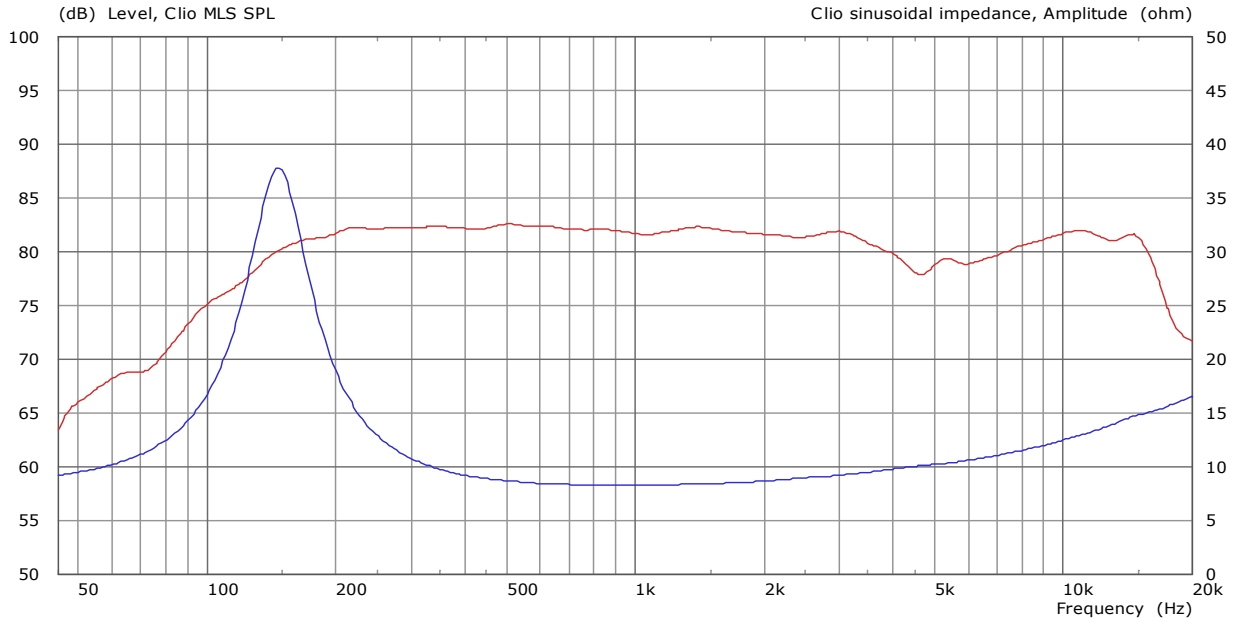


Figure 1. SPL at 1W, 1m & impedance vs. frequency

Outline Drawing

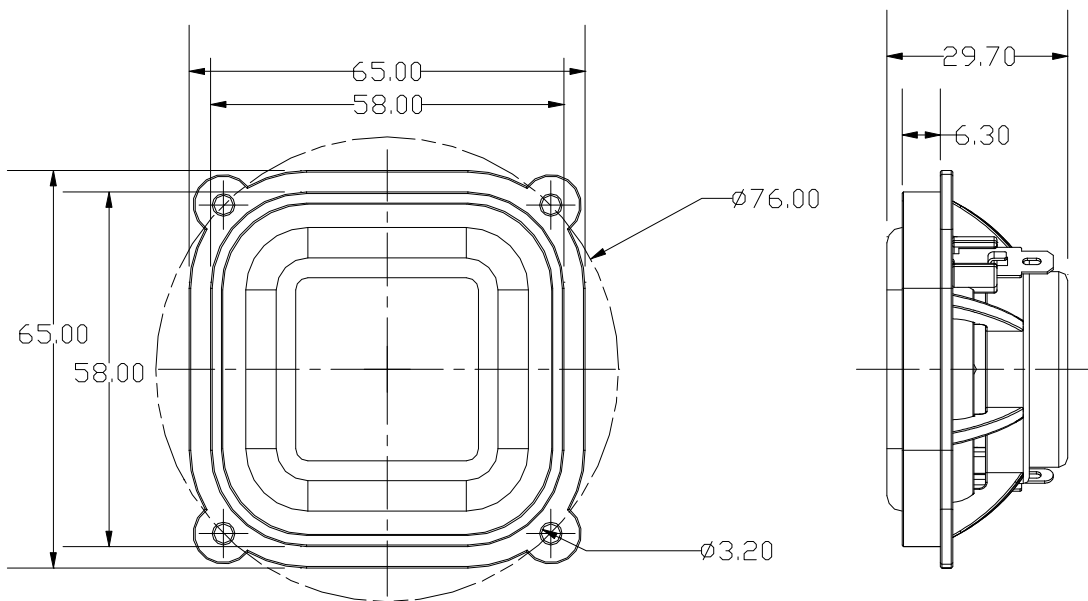


Figure 2. Nominal dimensions