accuton®
by Thiel & Partner

AS250-8-555

ALUMINIUM-SANDWICH BASS

he AS250-8-555 is an 11 inch bass driver with **ALUMINUM HONEYCOMB SANDWICH DOME**, being the updated version of our successful AS250-8-552. We achieved a unique solution for BL(x) linearity in overhung motors, utilizing **our own software development** for voice coil windings. By finding a new approach to winding principles, we reduced compression effects and dynamical misbehavior by a factor of 10, resulting in higher dynamics and resolution. An ideal acoustical center has been achieved again, which is identical with our CELL tweeters and midranges. Our exceptionally hard aluminum sandwich dome is used for the updated CELL bass drivers that allow for negligible delay and energy storage. The hidden surround serves for reduced outer diameter and linear excursion of +/- 16mm. A new developed spider shape makes huge excursion without compression possible.

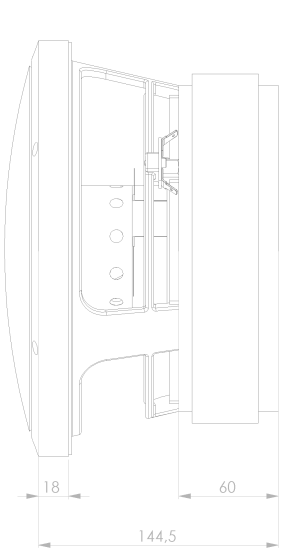
We recommend our AS250-8-555 for an application from 20 Hz - 600 Hz.

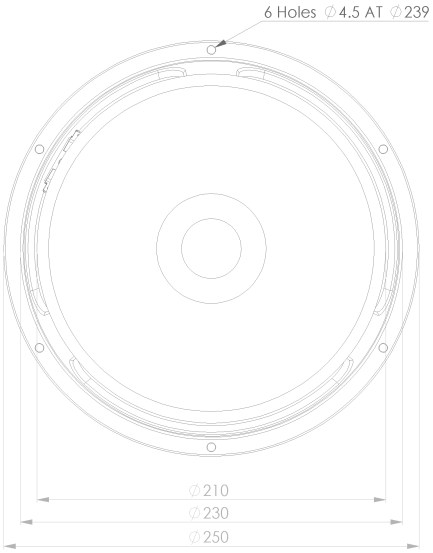
VENTED BOX DESIGN PARAMETERS

Vb: 60L, Port diameter: 100mm, Length: 440mm, Fres: 27Hz, F-3dB: 30Hz, Q: 0.58 (optimal)
Vb: 80L, Port diameter: 100mm, Length: 280mm, Fres: 28Hz, F-3dB: 28Hz, Q: 0.50 (extended bass)

CLOSED BOX DESIGN PARAMETERS

Vb: 30L, -9dB @ 30Hz, F-3dB: 51Hz, Q: 0.71 (typical)
Vb: 80L, -7dB @ 30Hz, F-3dB: 55Hz, Q: 0.50 (extended bass)





DOME MATERIAL	ALUMINIUM-SANDWICH
APPLICATION	BASS
OVERALL DIAMETER	250 MM
CUTOUT DIAMETER	230 MM
OVERALL DEPTH	141 MM
MOTOR ASSEMBLY DEPTH	56.5 MM
MOTOR ASSEMBLY DIAMETER	210 MM

MAIN FEATURES

Stepped VC winding principle
Full featured CELL concept
Ideal acoustic center
No compression design
20 HZ - 600 HZ in vented Box

MECHANICAL DATA

Specification		Value	Unit
Overall diameter		250	mm
Cutout Diameter		230	mm
Min. frontplate thickness		18	mm
Overall depth		141	mm
Motor assembly depth		56.5	mm
Motor assembly diameter		210	mm
Screwfitting		DIN 7984 / Ø 4.50	mm
Terminal		+: 6.3 x 0.8 / -: 4.8 x 0.8	mm
Shipping weight (pair)		23	Kg
Shipping box size (pair)		320/320/450	mm

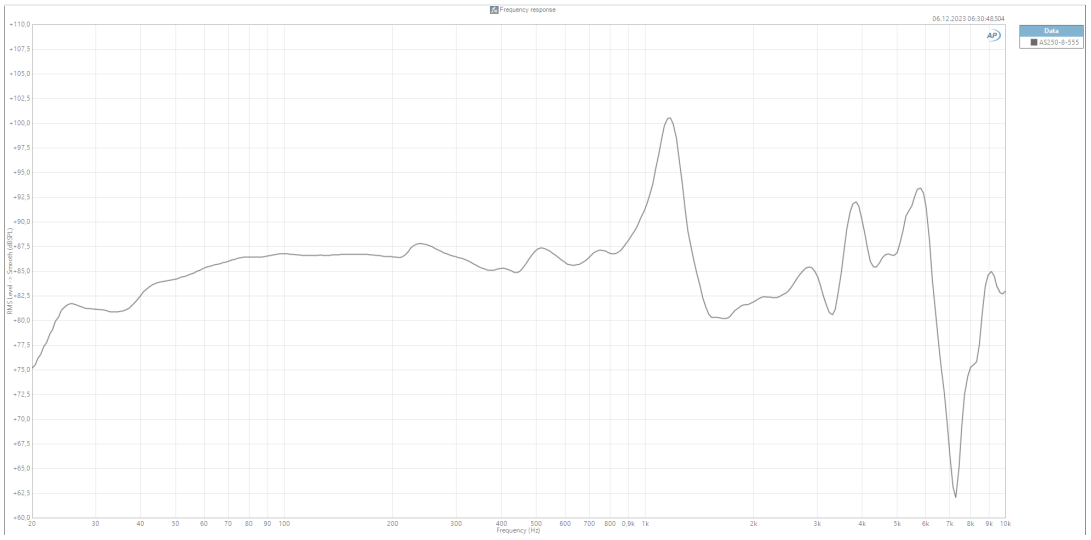
THIELE SMALL PARAMETERS

Specification		Value	Unit
Efficiency	η0	46	%
DC-resistance	Re	7.40	Ohm
Resonance frequency	Fs	23.78	Hz
Equivalent volume of air	Vas	131.17	ltr
Mechanical Q	Qms	3.54	
Electrical Q	Qes	0.36	
Total Q	Qts	0.33	
Effective piston area	Sd	397.61	Cm2
Moving mass	Mms	76.59	g
Suspension compliance	CMs	0.59	mm/n
Mechanical resistance	Rms	3.23	Ns/m

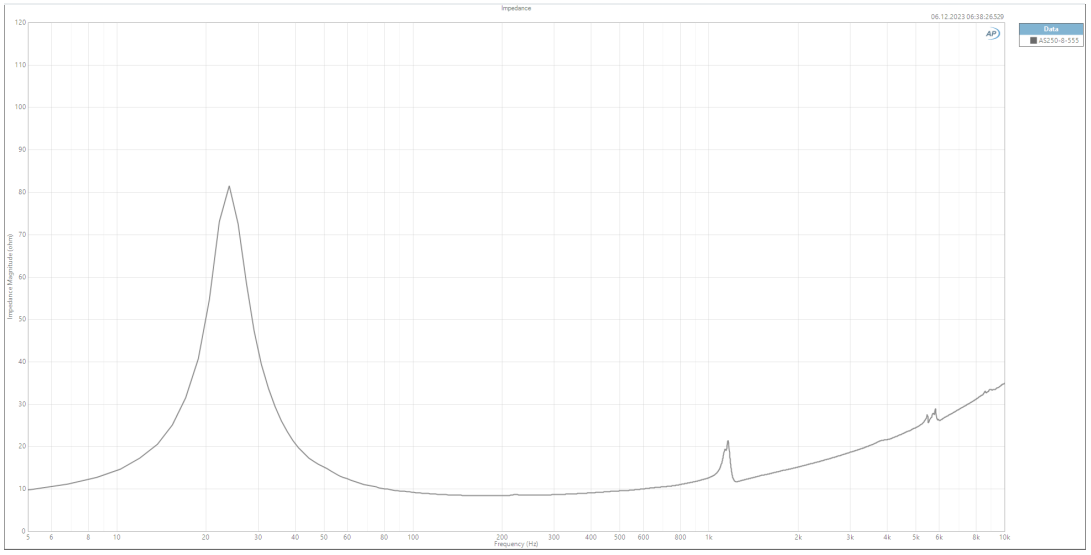
VOICE COIL PARAMETERS

Specification		Value	Unit
Power handling	P	300	W
Linear excursion	Xmax	+/-9	mm
Voice coil diameter		75	mm
Voice coil former material		Ti	
Voice coil material		Cu	
Voice coil inductance	Le	0.45	mH
Force factor	Bl	15.28	N/A
Motor type		Overhung	
Ferrofluid filling		No	

FREQUENCY RESPONSE [DB]



IMPEDANCE [OHM]



DISTORTION [%]