## A.O.S. Datasheet Mid/Woofer 18 W 16545K01



## Description:

18 W 16545K-01 is a 6.5" mid/woofer designed with the patented SD-1 magnet system which almost eliminates modulation and dynamic distortion and reduces clipping distortion generated as the drive unit exceeds its maximum linear excursion. The carbon fibre filled paper is impregnated to damp resonance normally associated with stiff cones. The low loss linear suspension, especially the rubber surround, combines dynamic linearity with low coloration. This drive unit is optimised for bass-midrange enclosures between 10- 12 Ltr. Volume. The phase-plug design reduces the moving mass down to 14g, an ideal qualification for constructing a perfect midrange design. The 42 mm voice coil with kapton former seems to be surprisingly exotic. The idea behind these 16 ohms is an easy way to connect drive units with difficult amplifiers, especially tube amplifiers with high output impedance. The second idea: the construction of a D'Appolito system with two bass units and one tweeter don't lead to an impedance problem, because two 16545K switched in parallel have 5.5 ohms.

## Technical data:

Characteristic sensitivity (2.83V / 1m)	:	87 dB
Recommended frequency range	:	34– 3000 Hz
Free air resonance frequency, fs	:	34 Hz
DC resistance, Re	:	10.6 Ohm
Voice coil inductance, Le	:	0.4 mH
Effective piston area, Sd	:	140 cm <sup>2</sup>
Moving mass incl. air, md	:	14 g
Mechanical loss, Rm	:	0.6 Ns/m
Force factor, BL	:	11.3 Tm
Equivalent volume, Vas	:	53 ltr.
Mechanical Q-factor, Qms	:	4.98
Electrical Q-factor, Qes	:	0.25
Total Q-factor, Qts	:	0.24
Excursion, lin./max.	:	±6.5 / ±10 mm
Voice coil diameter	:	42 mm
Rated power handling	:	70 W
Net weight	:	2.5 kg