

EAD E60 HD MKII

Price: 100 euros

Distribution: HiFi sound, Münster

> The Swedish manufacturer EAD manufactured the loudspeaker chassis of British loudspeaker specialist Ted Jordan for several years under license. Then EAD developed Jordan's driver design further and since then market them under their own name.

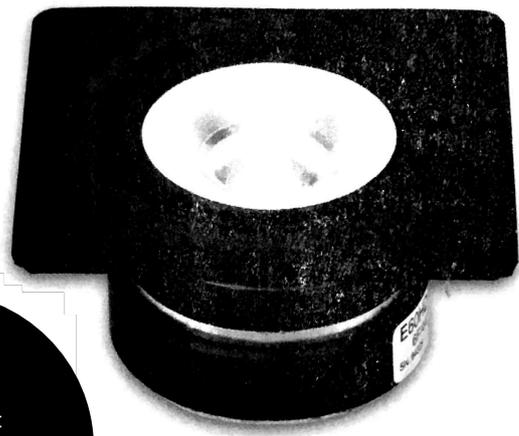
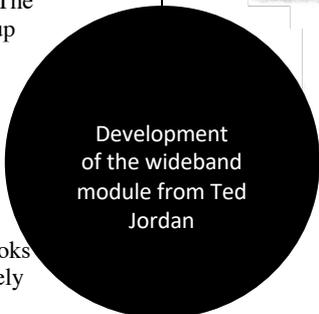
The E60HD MklI, the smallest member of the Chassis family, is the evolution of the E60 (test in HOBBY HiFi 6/2013), which in turn is based on Jordan's JXr6HD (test in HOBBY HiFi 4/2009). The rectangular shape of the basket favors a space saving line up of a line array. EAD also supplies this sound transducer with a round basket.

Compared to the predecessor EAD enlarged the voice coil: The coil is now 19.4 millimeters, before it was 17. Also the depth of the magnetic gap and the length of the voice coil and finally the linear stroke was increased. The material of the Bobbin is not mentioned by EAD; it looks like it could be Titan. This is also pleasing, but not extremely low mechanical loss resistance.

The drive is now stronger. This leads to a lower fair, full and completely bass reflex suitable resonance quality of 0.47.

The resonance frequency is close to 100 hertz, though not very deep, which is why the E60HD MklI achieves at best just under 70 Hertz in ventilated applications. It settles for two to 2.5 liters housing size, which makes a particularly compact desk monitor feasible.

Encouragingly, EAD was able to improve the linearity of the frequency response gangs, especially in the tonally most important area at two, three Kilohertz. Especially in the middle, but also beyond shows the already convincing decay behavior in top form. Drastically reduced clutter completes the picture of one completely successful product maintenance.



CONCLUSION

EAD not only developed Ted Jordan's legendary broadband module, but also the resulting E60 successfully and with the E60HD MklI offers a small broadband with excellent acoustic qualities.

TECHNICAL DATA

THIELE-SMALL PARAMETER

Re.....3.2 ohms
 Le.....0.09 mH
 Fs 98 Hz
 Qms..... 2.2
 Qes 0.60
 Qts 0.47
 Sd.....27 sqcm
 vas 1.5 l.
 Crms 1.4 mm / N
 Mms1.9 g
 Rms..... 0.52 kg, ls
 B * l 2.5 N/A
 Z (1 kHz) 4.2 ohms
 Z (10 kHz) 6.0 ohms

ELECTRICAL AND ACOUSTIC DATA

Nominal impedance according to DIN: ... 4 ohms
 impedance minimum:
 3, 7 ohms / 450 Hz
 Impedance at 1 kHz: 4.2 ohms
 Impedance at 10kHz: 6.0 ohms
 Sensitivity in the low frequency range
 (Free field): 85 dB
 Frequency range:...Fs- 30 kHz

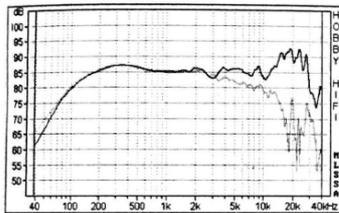
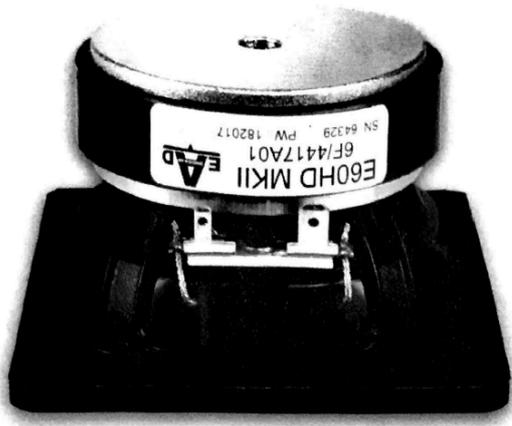
MASS, MATERIALS

Outer diameter: 77, 5x90.5 mm
 Installation diameter: 72 mm
 plus connection lugs
 Milling depth:4.5 mm
 Installation depth (not milled): 41mm
 Membrane material: aluminum
 Beading material:rubber
 Dustcap material: ...aluminum
 Wicker material: plastic
 linear deflectio: 2.9 mm
 Magnetic material: ferrite
 Ventilation measures:
 Pole core bore 7 mm
 ventilated spider
 perforation of the bobbin

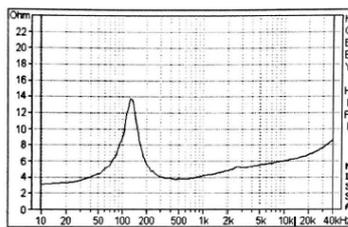
HOUSING RECOMMENDATION		
HOUSING TYPE	BASS REFLEX	BASS REFLEX
Resistance in the Signal way	0,20hm	0,50hm
Housing volume	2.01	2.51
tuning	87Hz	79Hz
Lower limit frequency (· 3 dB)	78Hz	68Hz
Bass reflex tunnel diameter	35mm	35mm
Bassreflex tunnel length	150mm	150mm

VOICE COIL DATA

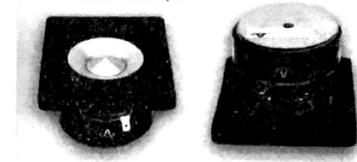
Diameter. 19.4 mm
 Winding height: . 9.8 mm
 Carrier material: k. A.
 Coil material:CCA W
 Air gap depth: 4 mm



Sound pressure frequency response in infinite baffle axial and under 30°
Greatly balanced and linear, best omnidirectional behavior.



impedance frequency response outdoor
Minimal resonance artifact at 2.5 kHz, great functioning impedance control.

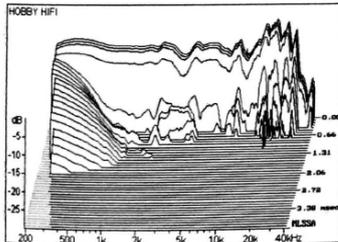


EAD E60

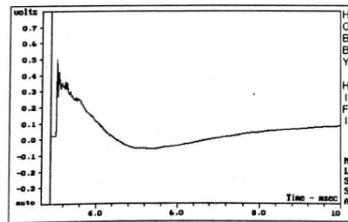
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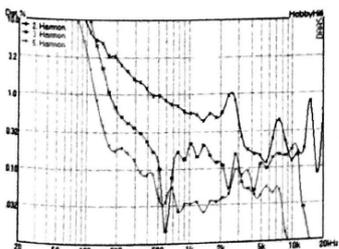
> The predecessor E60 of the E60HD MkII of EAD convinced in the test in HOBBY HiFi 6/2013 with a balanced frequency response, but not without a problem between two and three kilohertz. In this area the decay was also noticeable delayed. The distortion was much higher than the current version. A small coil, therefore weaker drive and resulting in high Q at resonance, 0.64 made bass reflex use difficult. The optimal housing fell 50 percent larger than the E60HD MkII, the lower limit lower frequency, low-frequency linearity and stability against parameter fluctuation conditions were limited.



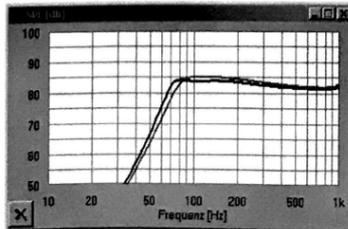
Water spectrum in infinite baffle axial
Perfect transient behavior



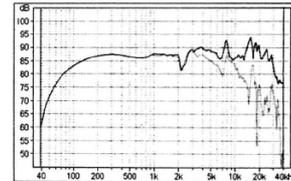
Step response in infinite baffle axial after short-term high-frequency resonances, ideal decay behavior.



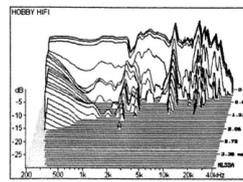
Harmonic Distortion Frequency Response K2, K3 and K5 at 90 dB mean sound pressure level
For the small membrane area, a very sovereign harmonic distortion



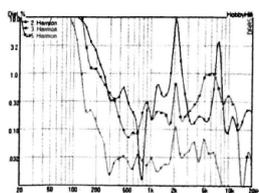
Low-frequency simulation corresponds to d. Housing recommendation in Column 3 with 0.2 ohms (red) and 0.5 ohms (black)
Resistance in the signal path
Bass reflex tuning with minimal woofer plateau, Respectably low cutoff frequency below 70 Hz.



Sound pressure frequency response in infinite sound wall axial and under 30°



Waterfall spectrum in infinite baffle axial



Harmonic Distortion Frequency Response K2, K3 u. K5 at 90 dB mean sound pressure level