

**AUDAX**

LA PASSION DU HAUT-PARLEUR

**HM100C0**

BASS MIDRANGE

100976W

**4" - CARBON FIBER CONE - 100 mm****REFERENCE SERIES**

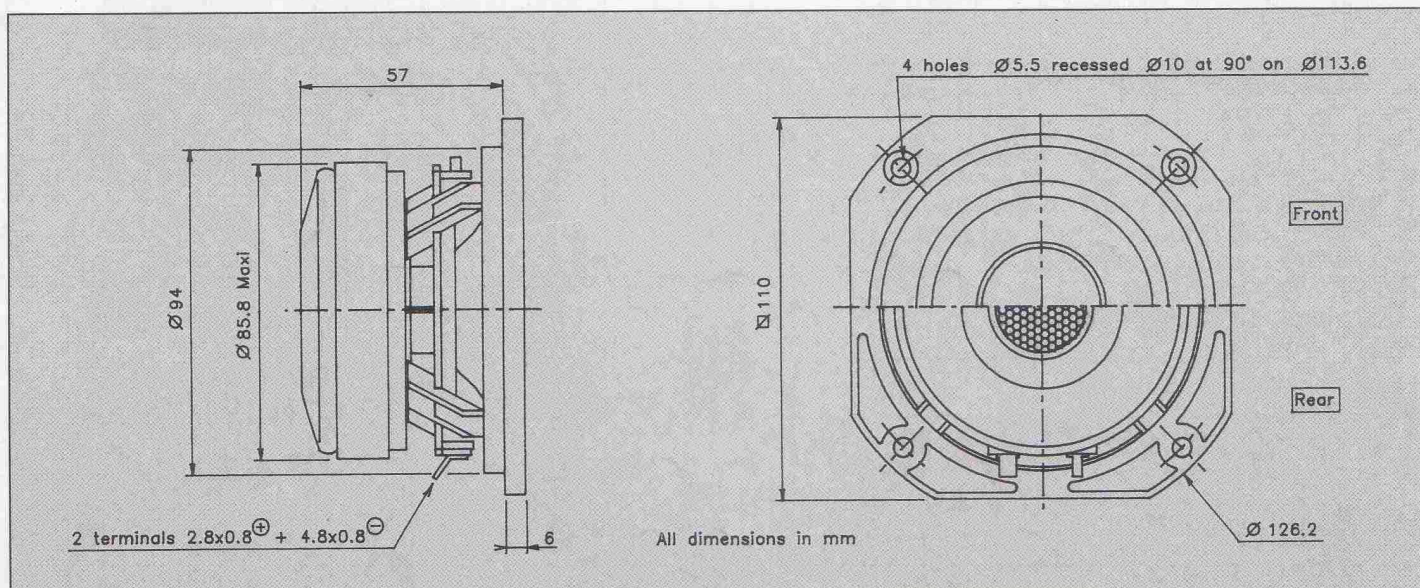
Non resonant die cast chassis  
 Ventilated chassis under spider  
 Woven carbon fiber cone  
 High Loss, high compliance rubber suspension  
 Edgewound, flat copper wire  
 Kapton voice coil former  
 Vented pole piece with protection grill  
 Gold plated terminals

Châssis Zamak moulé non résonant  
 Fond ventilé  
 Cône en fibres de carbone tressées  
 Suspension caoutchouc haute compliance  
 Fil cuivre plat sur chant  
 Bobine sur support Kapton  
 Noyau ventilé - Grille de protection  
 Connectique plaquée or



Designed for high end compact 2 way and satellite systems, this 4" Bass-Midrange driver offers the advantages of a very stiff and light woven Carbon Fiber cone coupled to a high loss rubber suspension. Bass reproduction is firm, tight and dynamic while the cone motion is well damped and controlled by the high compliance, high loss rubber surround. Special consideration has been taken to ensure the best possible transient response, and an exceptionally natural top end roll-off. unobstructed venting of the Zamak die cast chassis, coupled with a grill protected, vented pole piece and a soft polymer dustcap all contribute to the dramatic transient response. High power handling results from the flat, edgewound copper coil mounted onto a fiberglass reinforced Kapton voice coil former. Gold plated terminals offer excellent solderability. The "suggested applications" charts indicate various driver loads. The response curves shown on the diagram indicate the predicted low end response of the driver in the suggested box volume (Vb) with suggested port (Dp-Lp).

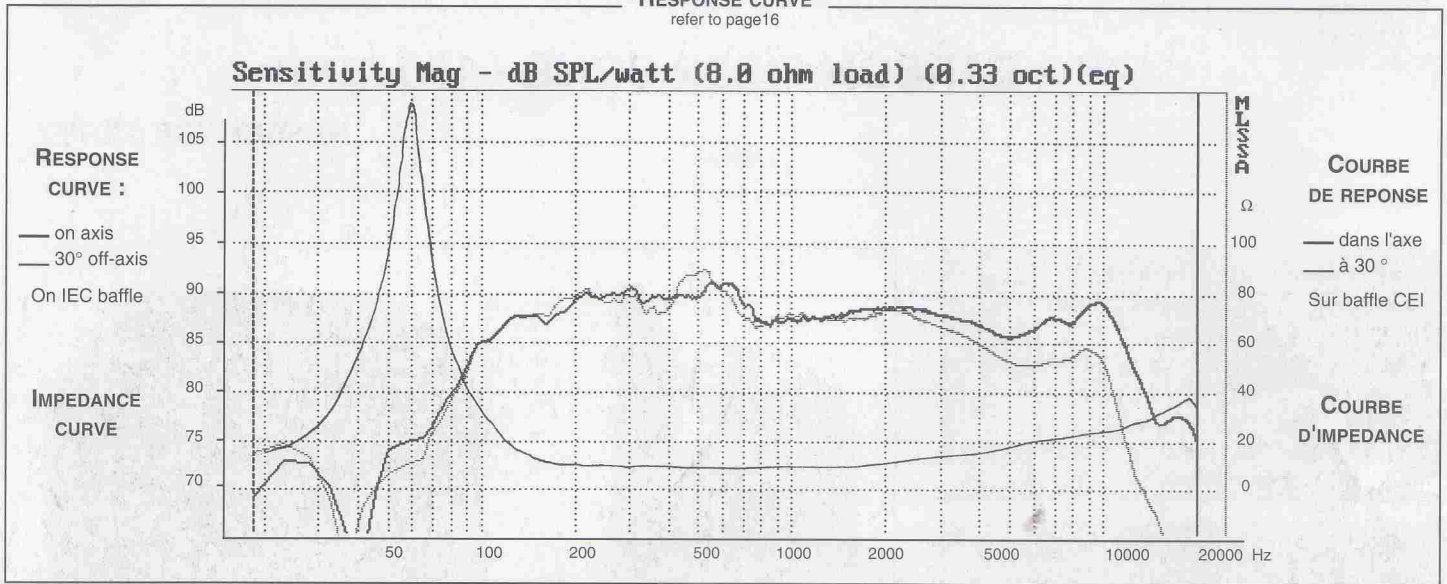
Ce Boomer-Médium de 100 mm, destiné à des systèmes compacts 2 voies et satellites haut de gamme, est doté d'un cône ultra rigide et très léger en fibres de carbone tressées associé à une suspension en caoutchouc amortissant. Les graves sont fermes, définis, dynamiques. Les ondes stationnaires sont absorbées par la suspension en caoutchouc amortissant. Un soin particulier a été apporté au châssis Zamak moulé ainsi qu'à la structure magnétique afin d'assurer la meilleure réponse en transitoire, ainsi qu'une coupure haute naturelle : châssis ouvert et ventilé sous le spider, noyau ventilé et cache noyau en polymère souple ultra léger. Sa bonne tenue en puissance résulte de l'utilisation d'une bobine sur support Kapton renforcé fibre de verre en fil de cuivre plat sur chant. La connectique plaquée or permet une excellente soudabilité. Le tableau "Suggested applications" indique différents types de charge. Les courbes publiées correspondent à la réponse dans le grave pour un volume (Vb) et une dimension d'évent donnée (Dp-Lp).





### RESPONSE CURVE

refer to page 16



### SPECIFICATIONS

Technical Characteristics	Symbol	Value	Units
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#### PRIMARY APPLICATION

Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	54	Hz
Nominal Power Handling	P	40	W
Sensitivity	E	89	dB

#### VOICE COIL

Voice coil diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7,7	$\Omega$
DC Resistance	Re	6,4	$\Omega$
Voice Coil Inductance	Lbm	0,11	mH
Voice coil Length	h	9,6	mm
Former	-	Kapton	-
Number of layers	n	1	-

#### MAGNET

Magnet dimensions	$\varnothing \times h$	84 x 15	mm
Magnet weight	m	0,345	kg
Flux density	B	1,1	T
Force factor	BL	6,96	NA <sup>-1</sup>
Height of magnetic gap	He	6	mm
Stray flux	Fmag	-	Am <sup>-1</sup>
Linear excursion	Xmax	$\pm 1,8$	mm

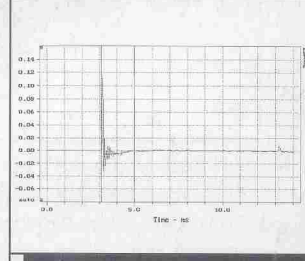
#### PARAMETERS

Suspension Compliance	Cms	$1,74 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3,27	-
Electrical Q Factor	Qes	0,22	-
Total Q Factor	Qts	0,21	-
Mechanical Resistance	Rms	0,52	kg s <sup>-1</sup>
Moving Mass	Mms	$5 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0,51 \cdot 10^{-2}$	m <sup>2</sup>
Volume Equivalent of Air at Cas	Vas	$6,4 \cdot 10^{-3}$	m <sup>3</sup>
Mass of speaker	M	0,93	kg

### APPLICATION PARAMETERS

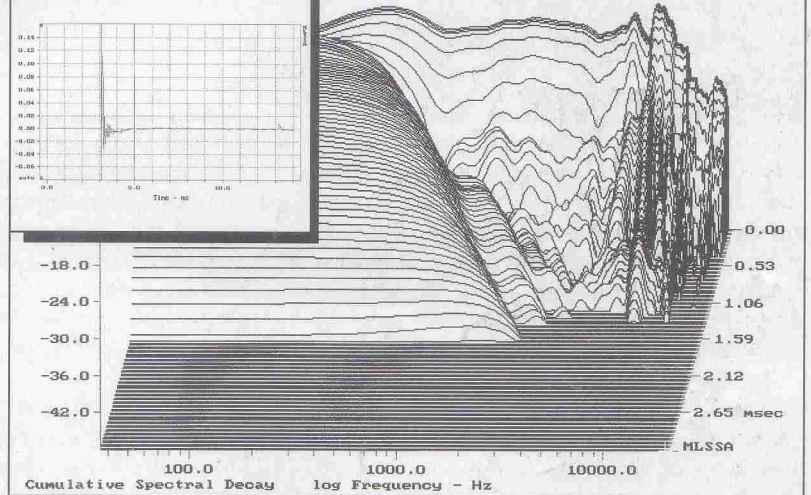
Vb	Box volume	dm <sup>3</sup>
Fb	Tuning frequency	Hz
Dp	Port diameter	cm
Lp	Port length	cm

### IMPULSE RESPONSE



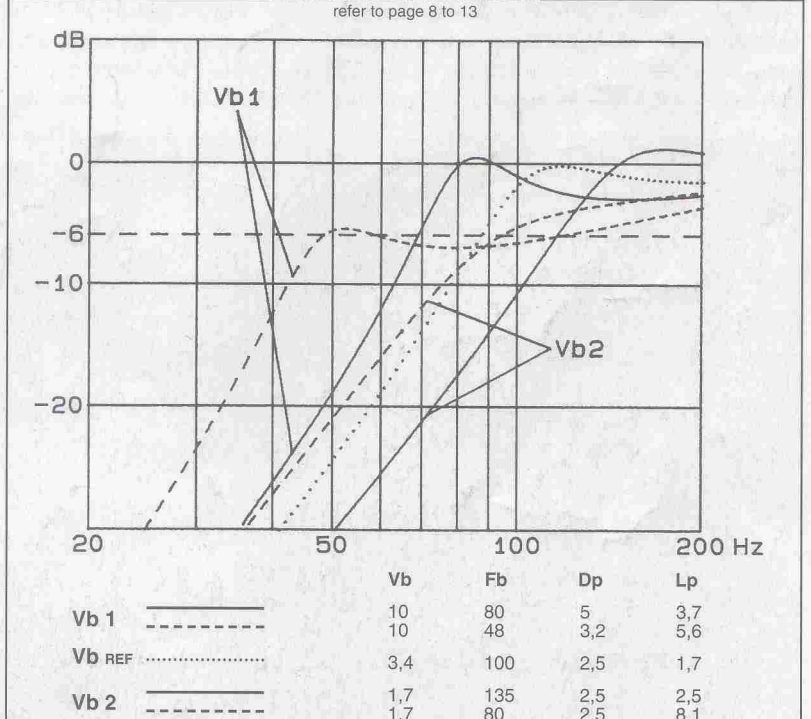
### WATERFALL

refer to page 16



### SUGGESTED APPLICATIONS

refer to page 8 to 13



Please refer to method of measurement and measurement conditions pages 15 to 19.

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