

4FR40

FULL RANGE FREQUENCY TRANSDUCER
Preliminary Data Sheet

KEY FEATURES

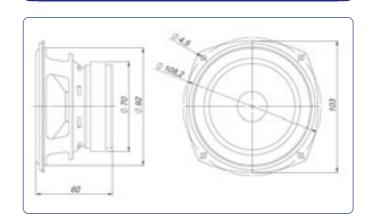
- 4" full-range compact ferrite loudspeaker
- 80 W program power
- Extended response and low distortion
- Paper cone and Santoprene[™] surround
- · Pressed steel basket
- Ceramic magnet
- Ideal for beam-steering application (columns), portable array and compact applications



TECHNICAL SPECIFICATIONS

Nominal diameter	100 mm 4 in
Rated impedance	8 Ω
Minimum impedance	7,3 Ω
Power capacity*	40 W _{AES}
Program power	80 W
Sensitivity	87 dB 1W / 1m @ Z _N
Frequency range	100 - 20.000 Hz
Voice coil diameter	20,3 mm 0,8 in
BI factor	4,2 N/A
Moving mass	0,0044 kg
Voice coil length	7,7 mm
Air gap height	5 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	92 Hz
D.C. Voice coil resistance, R _e	6,4 Ω
Mechanical Quality Factor, Q _{ms}	11,3
Electrical Quality Factor, Q _{es}	0,96
Total Quality Factor, Q _{ts}	0,88
Equivalent Air Volume to C _{ms} , V _{as}	2,8 1
Mechanical Compliance, C _{ms}	668 μm / N
Mechanical Resistance, R _{ms}	0,23 kg / s
Efficiency, η ₀	0,22 %
Effective Surface Area, S _d	0,0055 m ²
Maximum Displacement, X _{max} ***	3 mm
Displacement Volume, V _d	11 cm ³
Voice Coil Inductance, L _e @ 1 kHz	0,2 mH

MOUNTING INFORMATION

Overall diameter Bolt circle diameter	118,2 mm 108,2 mm	4,65 in 4,26 in
Baffle cutout diameter:		
- Front mount	92 mm	3,62 in
Depth	60 mm	2,36 in
Net weight	0,55 kg	1,21 lb
Shipping weight	0,75 kg	1,65 lb

Notes

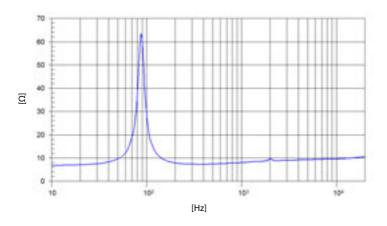
- * The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).
- *** The X_{max} is calculated as $(L_{vc}$ $H_{ag})/2$ + $(H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.



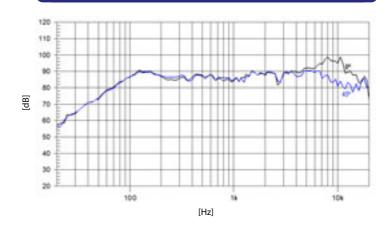
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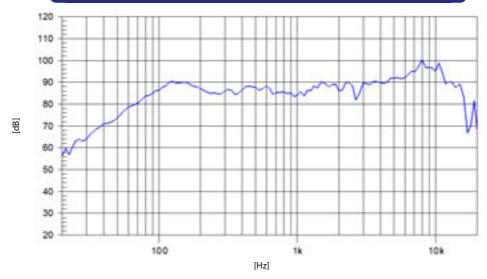
FREE AIR IMPEDANCE CURVE



OFF-AXIS FREQUENCY RESPONSE



FREQUENCY RESPONSE CURVE



Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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