OBERTON
Professional Loudspeakers

KEY FEATURES:

92 db SPL 1W / 1m (LF) average sensitivity
44 mm (1.75”) high temperature voice coil (LF)
300 W AES program power (LF)
Double aluminium demodulating rings
Single neodymium magnet assembly
Water protected cone
1” exit HF neodymium compression driver
38 mm (1.5”) HF high temperature voice coil
80 degrees nominal dispersion
Very light weight

Application: Compact fullrange boxes.

Description: The 6NCX is a 6.5" / 1" coaxial transducer designed for use in compact reflex enclosures with a nominal dispersion of 80 degrees. The low profile, smooth curvilinear LF cone provides smooth response within its intended frequency range and water prove protective coating, allowing application in a wide range of environments. The state-of-the-art 44 mm (1.75 in) LF voice coil has Kapton former, which together with high temperature resistant resin ensure high reliability by high power. A double aluminium demodulating rings reduce distortion and inductance and improve transient response. The neodymium 1" exit compression driver adopted is our ND2539 model. The HF driver diaphragm assembly, using triple layer polyester dome this together with phasing plug improve linearity of frequency response in high end. Because of design with single magnet assembly the speaker has very light weight and compact size.

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SPECIFICATIONS

Nominal diameter	170 mm (6.5 in)
Impedance	LF 8 Ohm /HF 16 Ohm
Minimum impedance LF	5.93 Ohm
Frequency range	80 - 18000 Hz
Dispersion angle	80 deg
LF unit	
Sensitivity (200-2000 Hz)	92 dB
Power Capacity AES [1]	150 W
Program Power [2]	300 W
Voice Coil Diameter	44 mm (1.75 in)
Voice Coil Material	Copper
Voice Coil Former	Kapton
Voice Coil Winding Depth	15 mm
Magnet Gap Depth	7 mm.
Cone Material	Paper with glassfiber
Basket	Die Cast Aluminium
Magnet	Neodymium
Flux Density	0.97 T
HF unit	
Minimum impedance HF	10.13 Ohms
DC resistance	9.1 Ohms
Sensitivity (1000-15000 Hz)	104 dB
Power capacity (1000-20000 Hz)	30 W
Program power	60 W
Voice coil diameter	38 mm (1.5 in)
Winding material	Aluminium
Diaphragm material	Sandwich polyester
Flux density	1.84 T

THIELE-SMALL PARAMETERS

Resonance Frequency	91.5 Hz
Mechanical Efficiency Factor (Qms)	4.94
Electrical Efficiency Factor (Qes)	0.476
Total Q (Qts)	0.435
Equivalent Air Volume (Vas)	4.35 L
Diaphragm mass ind. airload (Mms)	16.6 g
Voice Coil Resistance Re	5.27 ohms
Effective Diagram Area (Sd)	131 cm^2
Peak Linear Displacement of Diaphragm (Xmax)*	+ / - 5.75 mm
Mechanical Compliance of Suspension (Cms)	0.18 mm/N
BL Product (BL)	10.27 T.m
V.C. Inductance at 1 kHz (Le)	0.52 mH

MOUNTING INFORMATION

Overall diameter	185 mm (7.28 in)
Depth	98.2 mm
Baffle hole diameter	145 mm
Bolt circle diameter	171 mm
Number of mounting holes	4 eliptic 5.5 mm/6.5
Net weight	mm
	1.35 kg

1. AES standard. Power is calculated on rated minimum impedance. Measurement is in 18 L box enclosure tuned 82 Hz using a 60-2000 Hz band limited pink noise test signal applied continuously for 2 hours.

2. Program power is defined as 3db greater than AES Power Capacity.

** Linear Mathematical Xmax is calculated as: (Hvc - Hg)/2 + Hg/4 where Hvc is the voice coil depth and Hg is the gap depth.*

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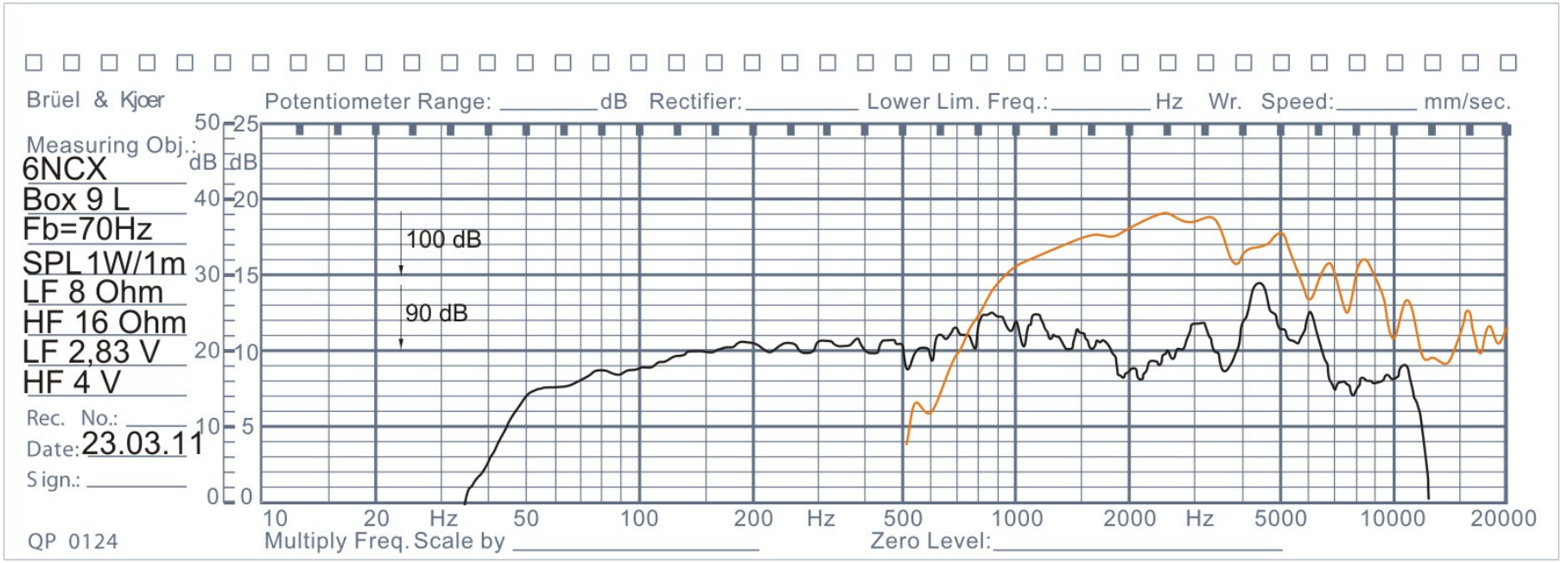

Freguency responce

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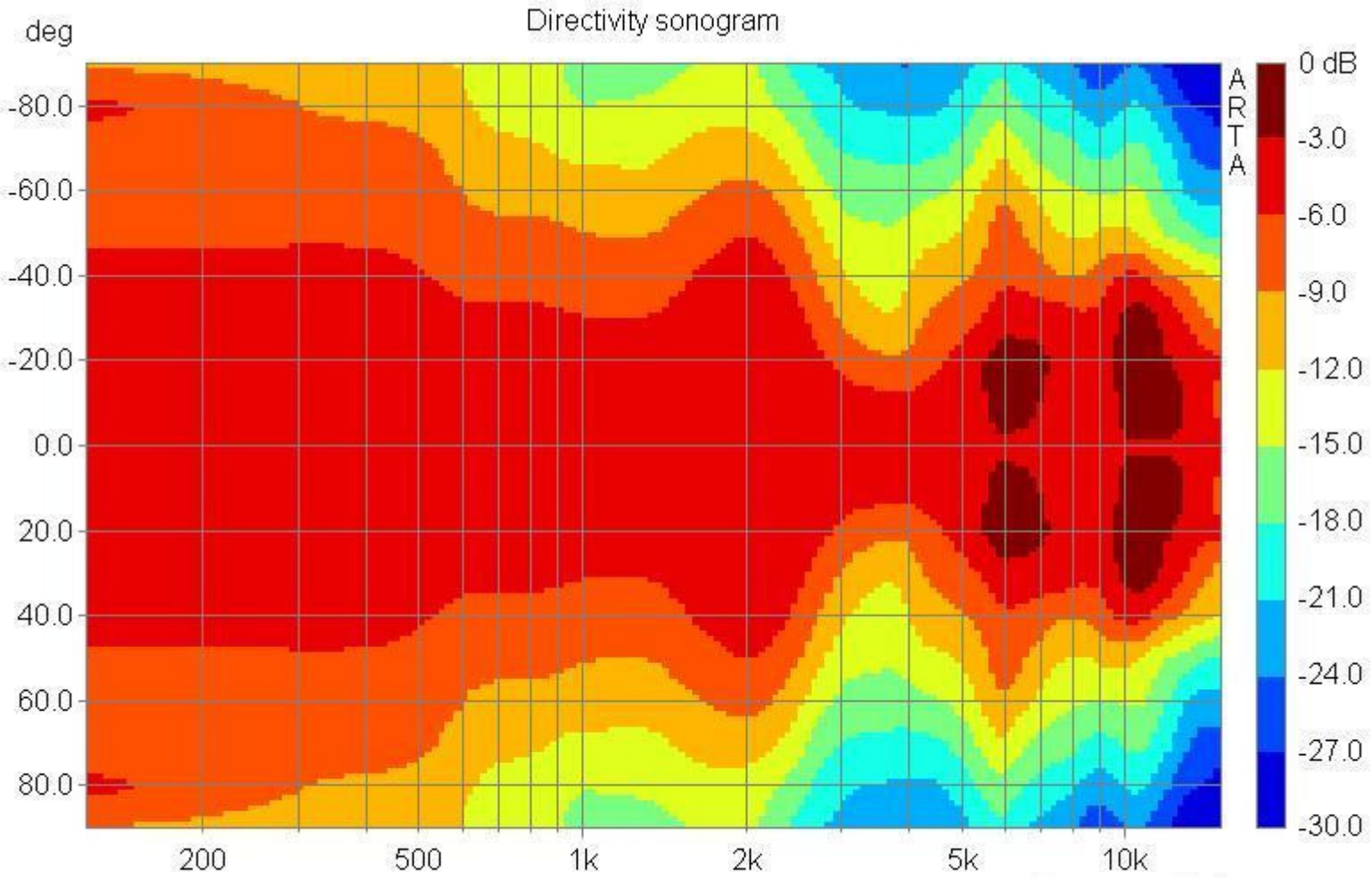

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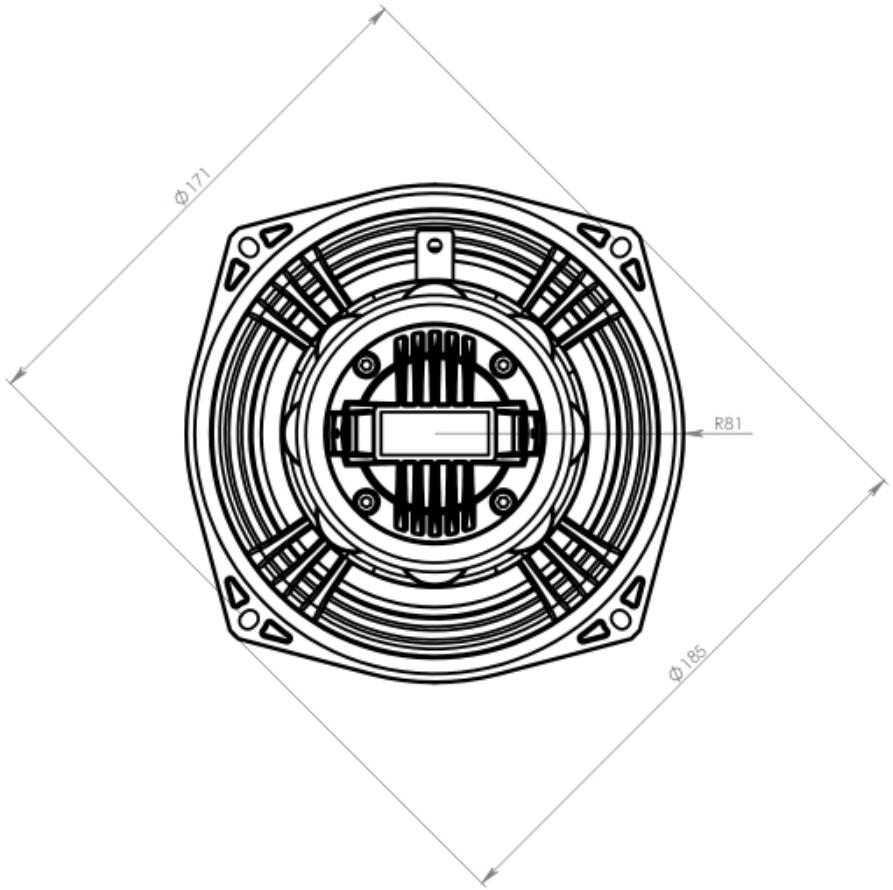

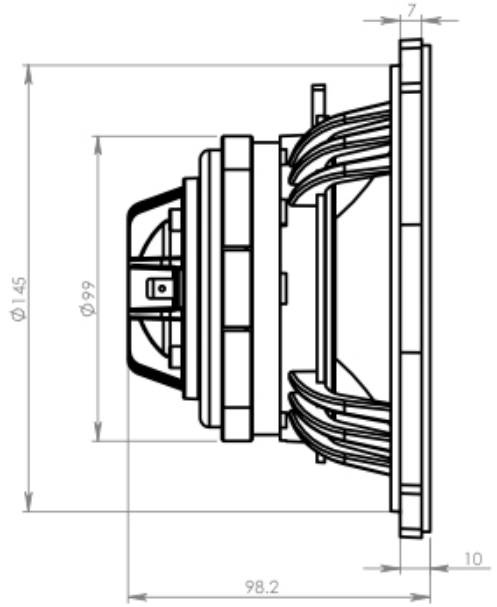

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model:	6NCX	
Dimensions are in mm		Scale: 1:2