

**8"****81XR**

# Neodymium Woofer



## Key features:

- NONPARALLEL VOICE AND LOW FREQUENCY REPRODUCTION QUALITY
- PATENTED MAGNETIC CIRCUIT AND AIR VENTING DESIGN
- EXTREMELY LOW HARMONIC DISTORTION

## Design notes:

The 81XR was designed to be simply the best driver for 2-way and multi-way systems on the market, yet this driver will also shine in sub-woofer applications. The combination of our XR patented technology with static shorting coil brings a non-parallel opportunity to the audio designers. The common request for 2-way speakers is „Äúmore of everything,Äù. Designers wish- es for more bass, more mids. Well, there you have it! But not only that. We bring

this with clarity in the mid-frequencies and undistorted bass. Our designers were able to achieve THD below 0.5% from 20Hz up to 2.5kHz. There isn,Äôt another driver like this on the market.

### Motor Design

The magnetic design incorporates large neodymium magnets placed along the voice coil winding, together with the 2nd and static coil placed on the pole piece.

This has allowed us to push the cone excursion to 30mm peak to peak, while lowering the inductance. The shorting coil covers the complete main coil excursion. This is also an improvement compared to some previous designs on the market that utilizes static coil. Unique gap side venting ensures good air circulation, lowers air noise and greatly improves the reliability of this driver.

## Specifications:

### General specs

Nominal Diameter: 8"  
Rated Impedance: 8 ohm

### Power handling

AES Power: 200 watts  
Program Power: 400 watts  
Peak Power: 800 watts

### Voice Coil

Diameter: 2.5 in.  
Winding wire: Copper Sq.  
Former: Glass Fiber  
Winding height: 18.3 mm

### T/S Parameters

Resonant frequency: 73 Hz  
Re: 5.5 ohm  
Qes: 0.37  
Qms: 1.466  
Qts: 0.3  
Vas: 7.2 liters  
Sd: 201 cm<sup>2</sup>  
Sensitivity: 93 dB  
Mms: 38 grams  
Bl: 16  
Le: 0.19 mH

### Design details

Surround Material: Fabric  
Cone material: Paper  
Spider: Nomex  
Plate thickness: 31 mm  
Peak to peak linear cone displacement: 14.2 mm  
Overall diameter: 210 mm  
Bolt circle diameter: 195 mm  
Baffle cutout dia.: 186.88 mm  
Number of mounting holes: 8  
Depth (flange to rear): 128.3 mm  
Net weight: 4.9kg

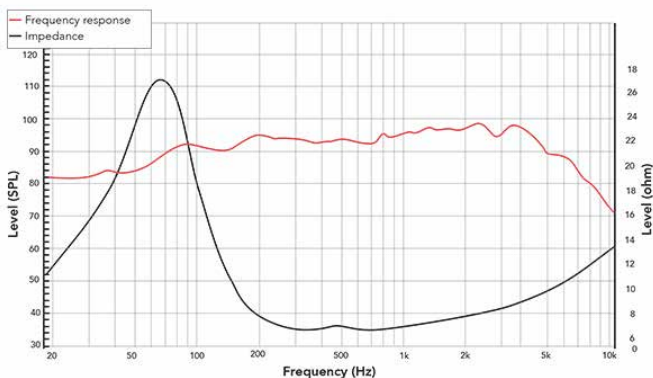
### Ordering codes:

81XR8-424A

### Recone kits:

In many cases REDCATT produces 4 ohms, 8 ohms and 16 ohms versions. Indicate what impedance do you need in your request.

## Frequency response & Impedance



Frequency response measured on IAC baffle

## 2D drawing

