

## WOOFER

# LF21N551

## Professional Low Frequency Transducer

PART NUMBER **11100076**

- 4000 Watt continuous program power handling
- 5,3 – inch Inside/Outside copper voice coil
- 97 dB Sensitivity
- 30 Hz - 1 kHz Frequency range
- Dual-forced air ventilation
- Dual spider designed with silicon based damping control
- 72 mm peak to peak excursion
- 39 T/m BL

The LF21N551 is very high power handling 21" neodymium woofer. The combination of a 3600 Watt power handling and a minimum weight of 13,7 Kg makes this transducer a unique product in his category.

The transducer design is based on a very strong neodymium magnetic structure and a new 5,3" inside-outside copper coil.

The new Dual forced design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket. The combination of carbon fibre loaded cone assembly, large triple roll surround, double silicon spider provides to the LF21N551 remarkable

strength and best control under large excursion conditions.

A fully optimised T-pole design generate the minimum amount of flux modulation offering a peak to peak excursion of 72 mm.

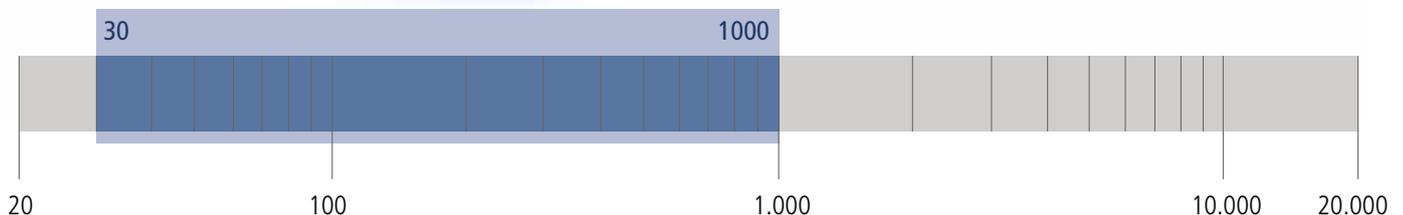
The waterproof body cone treatment and polycotton surround ensure a durable performance in every application.

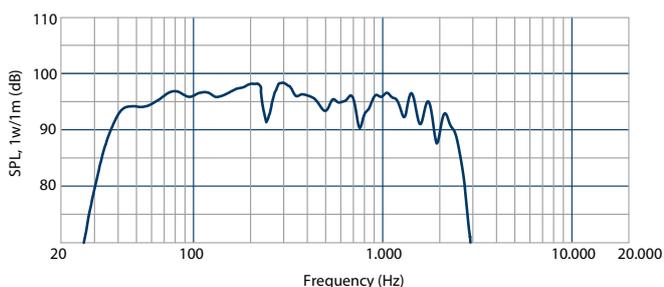
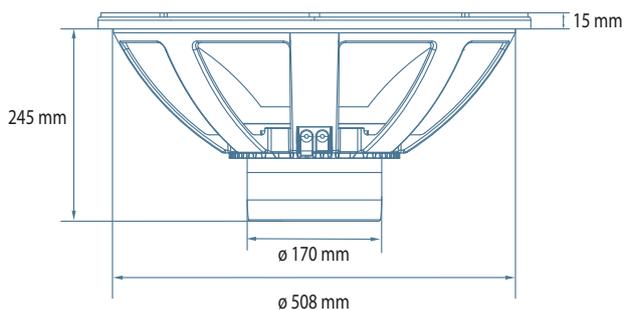
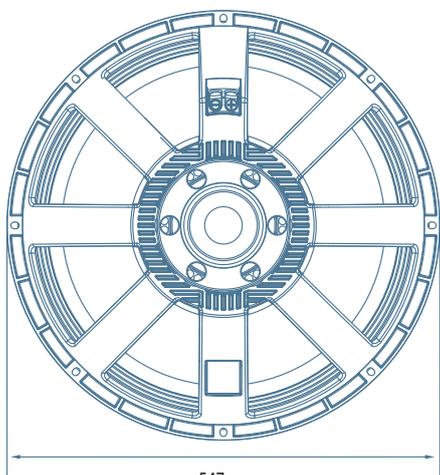
## APPLICATIONS

The LF21N551 is ideal in applications where combinations of maximum power handling, light weight and ultra fast time response are required.

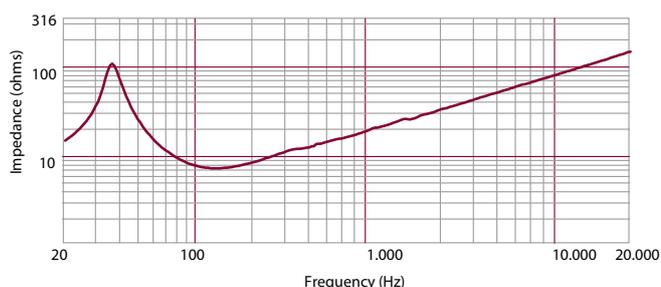
Perfect for powerful lows in horn loaded sub bass systems or reflex designs.

Ideal for touring, find a perfect application in high power, heavy duty, club subwoofer systems.





Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 litres and tuned at 60Hz, applying a sinusoidal signal of 2.83 V @ 8 at 1m.



Impedance magnitude curve measured in free air

## GENERAL SPECIFICATIONS

Nominal Diameter	530/21	mm/inch
Rated Impedance	8	ohm
Program Power <sup>1</sup>	4000	Watts
Power handling capacity <sup>2</sup>	2000	Watts
Sensitivity <sup>3</sup>	97	dB
Frequency Range	30 - 1000	Hz
Effective Piston Diameter	470/18.50	mm/inch
Max Excursion Before Damage (peak to peak)	72/2.83	mm/inch
Minimum Impedance	7.1	ohm
Voice Coil Diameter	135/5.3	mm/inch
Voice Coil Material	Copper	
Voice Coil Winding Depth	39/1.54	mm/inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	18/0.71	mm/inch
Cone Material	No pressed pulp carbon fiber reinforced	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple roll	

## THIELE - SMALL PARAMETERS <sup>4</sup>

Resonance frequency	Fs	35	Hz
DC resistance	Re	5.2	ohm
Mechanical factor	Qms	6.2	
Electrical factor	Qes	0.35	
Total factor	Qts	0.33	
BL Factor	BL	39	T · m
Effective Moving Mass	Mms	434	gr
Equivalent Cas air load	Vas	200	liters
Effective piston area	Sd	0.173	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	15	mm
Voice - coil inductance @ 1KHz	Le1K	3.2	mH
Half-space efficiency	Eff	2,40	%

## MOUNTING INFORMATION

Overall Diameter	547/21.5	mm/inch
Bolt Circle Diameter	527/20.7	mm/inch
Bolt Hole Diameter	6.5/0.25	mm/inch
Front Mount Baffle Cut-out	512/20.1	mm/inch
Rear Mount Baffle Cut-out	512/20.1	mm/inch
Depth	245/9.65	mm/inch
Volume occupied by the driver <sup>6</sup>	7.2/0.25	liters/ft3

## SHIPPING INFORMATION

Net Weight	13.7/30.2	Kg/Lbs
Shipping Weight	15.2/33.51	Kg/Lbs

## NOTES TO SPECIFICATIONS

1 Program Power is defined as 3 dB greater than AES power. - 2 AES standard. - 3 Sensitivity measurement is based on a 500-2,5 kHz pink noise signal with input power of 2.83V @ 8 Ohms. - 4 Thiele-Small parameters are measured after a 2 hour warm up period running the loudspeaker at full power handling capacity. - 5 The maximum linear excursion is calculated as:  $(Hvc - Hg)/2 + Hg/4$  where Hvc is the voice coil depth and Hg the gap depth. - 6 Calculated for front mounting on 18 mm thick board.

The data are not binding; RCF reserves the right to modify the data at any time and without previous notice.