

WOOFER LF21N451

Professional Low Frequency Transducer

PART NUMBER **11100043**

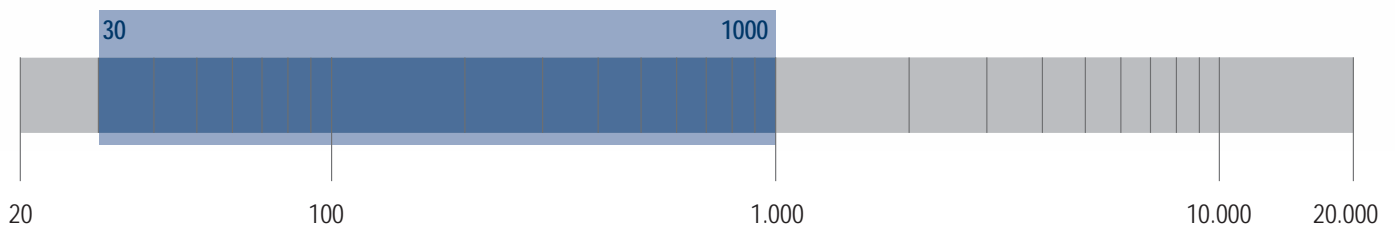
The LF21N451 is a very high power handling and efficiency transducer specially designed to provide powerful and accurate sub-bass frequencies with low distortion and low power compression. Ultra fast time response. The LF21N451 uses a fibre loaded cone assembly along a large triple roll surround, this combination provides remarkable strength and control. Double silicon spider system ensures excellent control during large excursions. A fully optimised T-pole design generate the minimum amount of flux modulation. The Dual-forced air venting system provides a very efficient voice coil ventilation to minimize the power compression.

Features

- 4,5 - inch Inside/Outside copper voice coil
- 3000 Watt continuous program power handling
- 98.5dB Sensitivity
- 30Hz - 1kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Dual spider designed with silicon based damping control
- BL of 34.5 T/m to provide a faster and accurate low frequency

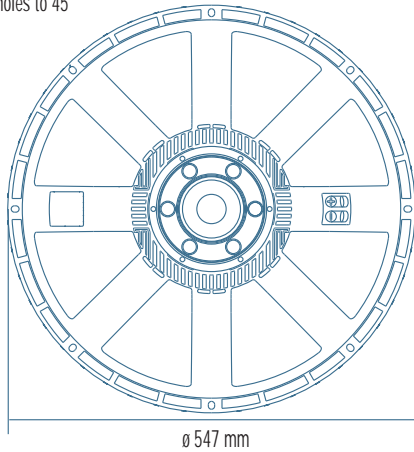
Applications

The LF21N451 is ideal in applications where light weight ,very high BL and power handling are required. It is especially used for touring, perfect for powerful lows in horn loaded sub bass system or reflex designs.

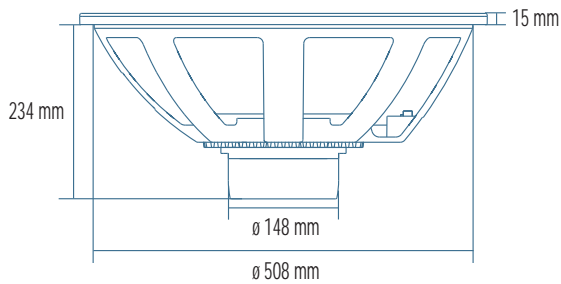




8 x ϕ 6.5 mm holes to 45°
on 527



ϕ 547 mm

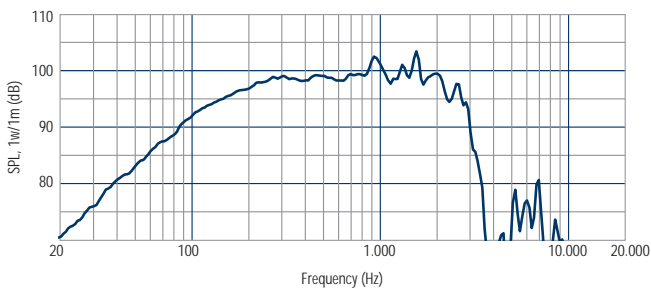


234 mm

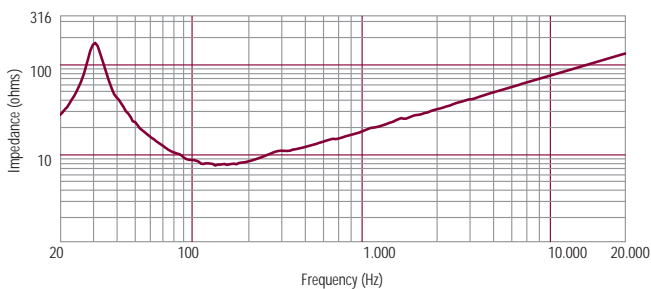
15 mm

ϕ 148 mm

ϕ 508 mm



Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted in a closed box with an internal volume of 600 litres (21.2 cu.ft) enclosing the rear of the driver.



Impedance magnitude curve measured in free air.

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 100-500 Hz 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.

General Specifications

| | | |
|--|---|---------|
| Nominal Diameter | 530/21 | mm/inch |
| Rated Impedance | 8 | ohm |
| Program Power ¹ | 3000 | Watts |
| Power handling capacity ² | 1500 | Watts |
| Sensitivity ³ | 98,5 | dB |
| Frequency Range | 30 - 1000 | Hz |
| Effective Piston Diameter | 470/18.5 | mm/inch |
| Max Excursion Before Damage (peak to peak) | 58/2.28 | mm/inch |
| Minimum Impedance | 7.1 | ohm |
| Voice Coil Diameter | 115/4.5 | mm/inch |
| Voice Coil Material | Copper | |
| Voice Coil Winding Depth | 34/1.33 | mm/inch |
| Number of layers | 2 | |
| Kind of layer | inside/outside | |
| Top Plate Thickness | 15/0.6 | mm/inch |
| Cone Material | No pressed pulp carbon fiber reinforced | |
| Cone Design | Curved | |
| Surround Material | Polycotton | |
| Surround Design | Triple roll | |

Thiele - Small Parameters ⁴

| | | | |
|---|------|-------|----------------|
| Resonance frequency | Fs | 30 | Hz |
| DC resistance | Re | 5.6 | ohm |
| Mechanical factor | Oms | 6.1 | |
| Electrical factor | Oes | 0.27 | |
| Total factor | Ots | 0.26 | |
| BL Factor | BL | 34.5 | T · m |
| Effective Moving Mass | Mms | 315 | gr |
| Equivalent Cas air load | Vas | 375 | liters |
| Effettive piston area | Sd | 0.173 | m ² |
| Max. linear excursion (mathematical) ⁵ | Xmax | 13.2 | mm |
| Voice - coil inductance @ 1KHz | Le1K | 3.0 | mH |
| Half-space efficiency | Eff | 4.0 | % |

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 | 250/9.8 | mm/inch |
| Volume occupied by the driver ⁶ | 6.5/0.229 | liters/ft3 |

Shipping Information

| | | |
|-----------------|-----------|--------|
| Net Weight | 10.9/24 | Kg/Lbs |
| Shipping Weight | 12.1/26.6 | Kg/Lbs |