Portable Speakers

NuQ152-AN

2500 Watt 2 Way 15" Full Range Powered Loudspeaker with KLARK TEKNIK DSP Technology and ULTRANET Networking

- 2 way full range powered loudspeaker for portable PA and installation applications
- 2,500 Watt power featuring KLARK TEKNIK Class-D technology
- KLARK TEKNIK Digital Signal Processing for total system control
- ULTRANET digital audio networking connects to mixers and other sources
- Carbon fibre loaded 15" low frequency driver with inside/outside coil
- Aluminium dome 1" neodymium motor compression driver
- Low distortion waveguide provides 70° H x 70° V dispersion
- Fully featured user interface with LCD display for ease of navigation
- PC remote control software downloadable at turbosound.com
- 15 mm (%") birch plywood enclosure with hard wearing semi matt black paint finish
- Rugged powder coated perforated steel mesh grille
- Integral 35 mm pole mount and handles
- Multiple internal rigging points allow bracket mount and suspension in any orientation
- Mains input on Neutrik powerCON* connector
- 3-Year Warranty Program*
- Designed and engineered in England



The 2 way full range NuQ152-AN is a 2,500 Watt 15" powered loudspeaker system that is ideally suited for a wide range of portable and fixed installation speech and music sound reinforcement applications. Designed to work individually without a controller, the NuQ152-AN provides optimal performance for FOH, sidefill and delay line loudspeakers, and is an exceptional choice for wedge



monitoring applications. It also offers the flexibility to accommodate venue-specific requirements for install applications.

The NuQ152-AN loudspeaker features a carbon fibre loaded 15" low frequency driver with a low mass voice coil for improved transient response and an aluminium dome 1" neodymium high frequency compression driver, which is mounted on a 70° horizontal by 70° vertical dispersion low distortion waveguide.

Output power for the NuQ152-AN is provided by means of an efficient and lightweight KLARK TEKNIK 2,500-Watt Class-D power amplifier. A sophisticated, but easy to use KLARK TEKNIK Digital Signal Processor (DSP) provides dynamic EQ for impressive full range response at low volume levels and transparent limiting for clarity at high output levels – and for long-term reliability.





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On the rear panel of the amplifier module, the user interface's LCD display and single rotary encoder provide intuitive access to: position compensation, user EQ control, subwoofer integration and signal routing features. In addition to the balanced XLR input, an XLR output is provided for daisy-chaining more active loudspeakers or for use with active subwoofers. An onboard USB port provides access for remote control of the NuQ152-AN via PC computer, as well as DSP firmware updates.

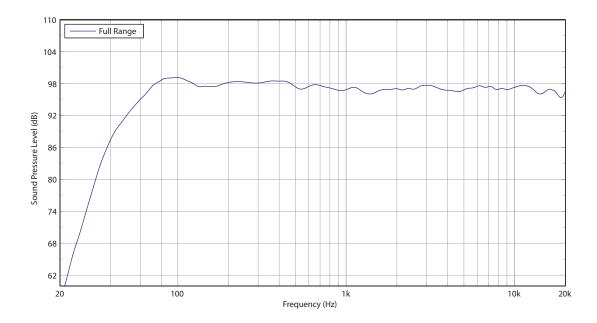
ULTRANET connectivity is provided by two locking etherCON* connectors. Up to 16 independent channels of 24-bit digital audio and control data are transmitted via a single CAT5 cable between compatible digital devices – including mixers, I/O stage boxes, powered loudspeakers and personal monitoring systems. Simplified cable routing and ease of setup translate directly into significant time saved during installation.

Finished in a highly durable semi matt black paint, the trapezoidal cabinet is constructed from 15 mm (%") birch plywood – and includes a rugged powder coated perforated steel mesh grille. Multiple threaded rigging points are provided for suspension in any orientation. The NuQ152-FY flying yoke kit provides added flexibility in permanent install applications (available separately). The NuQ152-AN also features a 35 mm socket for standard pole mounting – plus integrated handles for convenient transport. Mains power input is provided via a Neutrik powerCON* connector.



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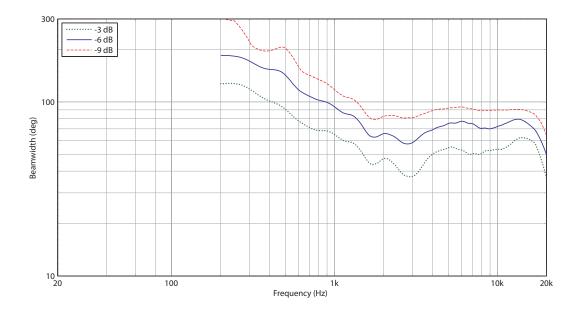
Frequency Response Sensitivity 1 W / 1 m



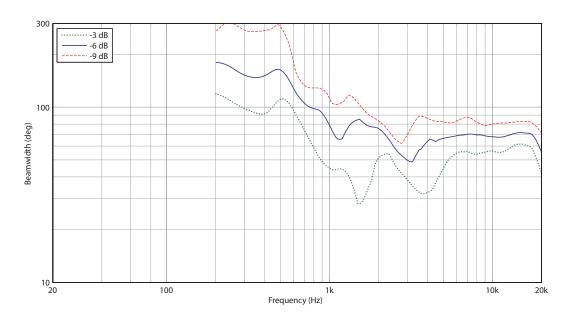


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Horizontal Beamwidth



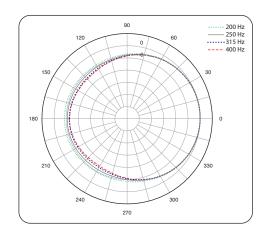
Vertical Beamwidth

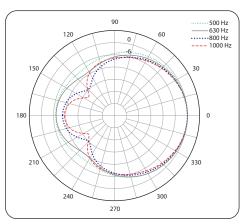


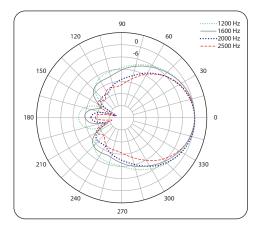


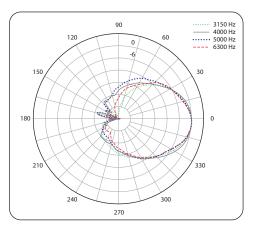
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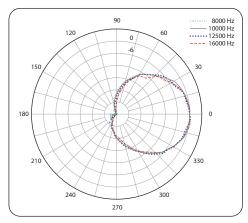
Horizontal Polar Plots







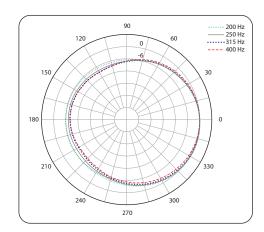


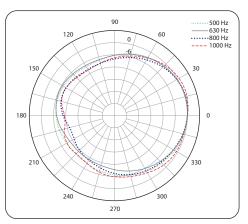


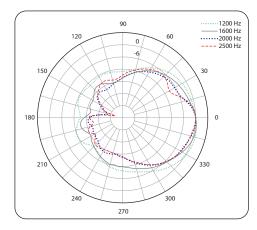


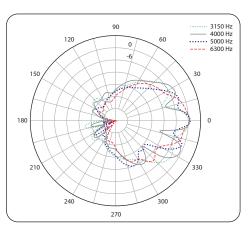
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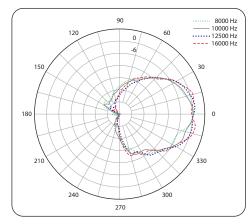
Vertical Polar Plots







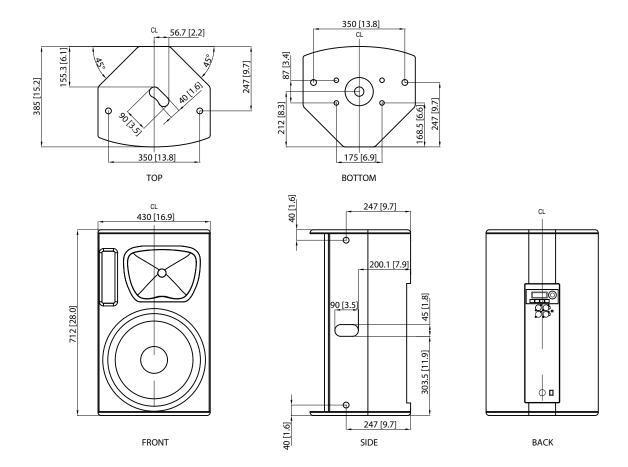






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Dimensions





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Mounting and Rigging

The cabinet is fitted with M10 x 8 internally-threaded rigging points that allow it to be rigged with optional shoulder eyebolts and mounted in many different configurations in permanent installations. The simplest method of rigging is to use the two M10 rigging points on the top. Cabinets may also be hung upside down if required.

The cabinet has an integral 35 mm pole mount socket in the bottom panel, that allows it to be pole mounted.

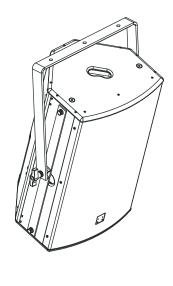
The optional NuQ152-FY fly yoke adds further installation flexibility for scaffold, surface, and pole mounting.



Suspension using M10 shoulder eyebolts.



Mounting on 35 mm pole or speaker stand



NuQ152-FY fly yoke.



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Technical Specifications

Mains Supply

Controls

DSP

55 Hz – 18 kHz ±3 dB
50 Hz – 20 kHz -10 dB
70° H x 70° V @ -6 dB points
133 dB peak
Active
1 x 15" (393.5 mm) LF driver
1 x 1" (25.4 mm) HF compression driver
Independent HF, LF, peak and rms
2,500 W
Class-D
Short circuit, thermal
1 x Combo Jack/XLR 1 x XLR
+4dBu or +14 dBu software switchable
40 kΩ balanced
+22 dBu
2 x RJ45

Neutrik powerCON 20A†

Rotary push-encoder and level control Buttons for Process, Setup, Exit, Enter

User DSP Functions	
Factory EQ Presets	Positioning, Sound mode, FBQ
Display	LCD 128 x 32, blue, backlit
Delay	0 - 300 ms
Equalisation	High and low shelving EQ 2 x parametric EQ
Limiter	Zero attack input limiter
Presets	20 total presets, 19 user-definable
Crossover	High Pass L-R 24 dB/oct
Protection	Lock-out function for all settings

Ultranet Digital Network	
Digital processing	
A/D conversion	24-bit,44.1/48kHz sample rate
Converter type	24-bit,delta-sigma
System	
Signal	16 channels
Latency	< 0.9 ms
Frequency response	20 Hz to 20 kHz (+0 / -3 dB)
Dynamic range	typical 92 dB
Cabling	
Cables	Shielded CAT5
Cable length	max. 246 ft / 75 m recommended



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Power Supply	
Power consumption	90 W @ 1/8 max power
Voltage (fuses)	
USA / Canada	120 V~, 60 Hz (T 15 A H 250 V)
UK / Australia / Europe	220-240 V~, 50/60 Hz (T 10 A H 250 V)
Korea / China	220-240 V~, 50/60 Hz (T 10 A H 250 V)
Japan	100 V~, 50/60 Hz (T15 A H 250 V)

Enclosure	
Dimensions (H x W x D)	712 x 430 x 385 mm (28.0 x 16.9 x 15.2")
Net weight	23.6 kg (52.0 lbs)
Construction	15 mm (5/8") birch plywood
Finish	Semi matt black paint
Grille	Powder coated perforated steel
Flying hardware	M10 x 8 points

Accessories

NUQ152-FY fl ying yoke for NuQ152



^{*}independent of limiters and driver protection circuits

 $[\]verb| † Neutrik| and power CON speak ON are registered trademarks of Neutrik AG.$

[†]Only qualified personnel are allowed to modify the AC-Main cord and to adhere to all applicable national standards.

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Architecture & Engineering Specifications

The loudspeaker shall be of the full range, two-way, powered type, consisting of one 15" (394 mm) LF driver and one 1" (25 mm) HF compression driver. Performance specifications of a typical production unit shall meet or exceed the following: frequency response, measured with swept sine wave input, shall be flat within ±3 dB from 55 Hz to 18 kHz and within -10 dB from 50 Hz to 20 kHz. Nominal dispersion, at -6 dB points, shall average 70° H x 70° V. Maximum amplifier output power shall be 2,500 Watts peak, independent of limiters and driver protection circuits. Maximum SPL (peak), measured at 1 metre with music program, shall be 133 dB. Dimensions: 712 mm high x 430 mm wide x 385 mm deep (28" x 16.9" x 15.2"). Net weight: 23.6 kg (52.0 lbs). The loudspeaker system shall be the TURBOSOUND NuQ152-AN. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verifies that the above combined performance / size specifications are equaled or exceeded.



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