

QLIGHT™ SERIES ENGINEERING INFORMATION

The TQ-115 is a front-loaded subwoofer designed for use in a variety of theatre, corporate and audio-visual applications, as well as in numerous fixed installations ranging from nightclubs and bars to themed environments and houses of worship.

It consists of a custom 4" voice coil 15" low frequency driver in a compact vented enclosure, optimally tuned for extended low frequency response.

The enclosure is constructed from 3/4" (18mm) birch plywood, heavily braced internally. Recessed flush handles are fitted for easy lifting and carrying. An integral pole mount is fitted to the top of the enclosure to allow QLight™ series enclosures such as the

TQ-220, TQ-230, TQ-259 or TQ-310 to be mounted at the correct height above the subwoofer. It is finished in black semi-matt textured paint (other colours optionally available). A reticulated foam / expanded steel mesh grille protects the drive unit from damage.

A rear panel connector plate carries two Neutrik Speakon NL4MP connectors for loop in and loop out connections to additional enclosures.

Recommended complementary products:

TQ-230, TQ-259, TQ-308SP, TQ-310, TQ-315 enclosures
LMS-D6, LMS-D4 loudspeaker management systems



FEATURES

- Compact enclosure
- Integral pole mount
- High efficiency

APPLICATIONS

- Theatre
- Houses of Worship
- Nightclubs
- Audio-visual
- Corporate / industrial

DIMENSIONS (HxWxD)	559mm x 450mm x 578mm (22" x 17.7" x 22.8")
NET WEIGHT	34.6kg (76.1lbs)
COMPONENTS	1 x 15" (381mm) LF driver
FREQUENCY RESPONSE¹	47Hz - 180Hz ±4dB
POWER HANDLING	400 watts r.m.s., 800 watts program, 1000 watts peak Recommended amplifier 800 watts @ 8 ohms
SENSITIVITY²	100dB 1W @ 1m
MAXIMUM SPL	126dB continuous ³ , 132 dB peak ⁴
CROSSOVER	Recommended active crossover at 150Hz, 24dB/octave slope, Linkwitz-Riley
NOMINAL IMPEDANCE	8 ohms
CONSTRUCTION	18mm (3/4") birch plywood; rebated, screwed and glued. Finished in black semi-matt textured paint. Integral pole mount socket. Two recessed carrying handles.
GRILLE	Powder coated expanded steel mesh with reticulated foam
CONNECTORS	(2) Neutrik Speakon NL4MP, wired pin1+: positive, pin1-: negative
OPTIONS	Optional colour: TurboBlue™
SPARES AND ACCESSORIES	LS-1518 15" (381mm) LF loudspeaker RC-1518 Recone kit for LS-1518 MG-115 Replacement grille

Notes

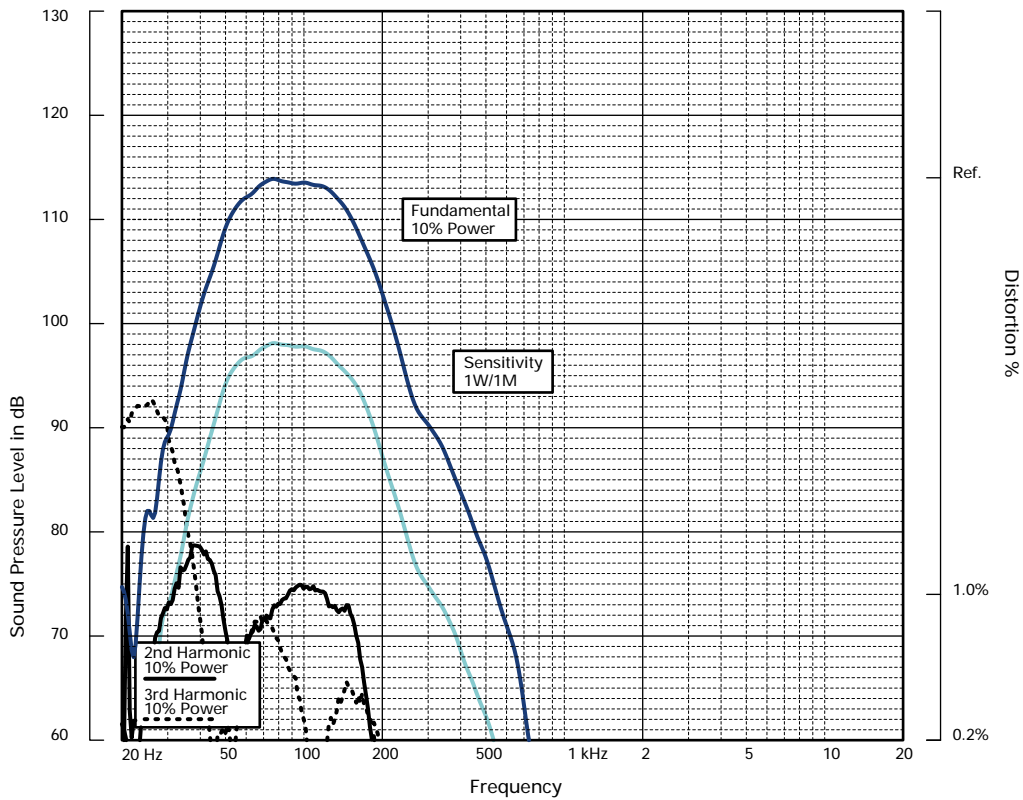
¹Measured on axis

²Average over stated bandwidth

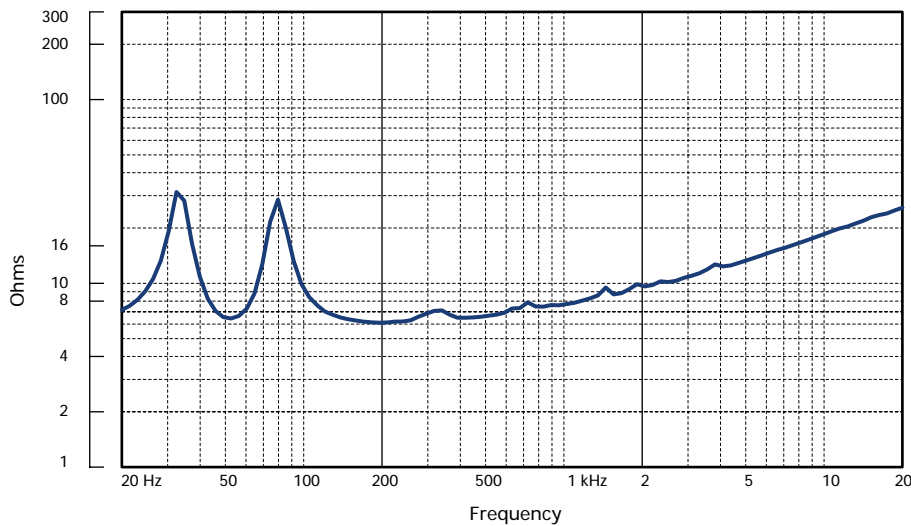
³Unweighted diode-clipped pink noise input. Measured in a half space environment

⁴Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation

FREQUENCY RESPONSE



IMPEDANCE



Impedance A constant current circuit was used to measure the impedance. **Frequency Response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled to represent 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (AES paper ANSI S4-26-1984). **Data Conversion** All graphs were digitally generated using the APEX custom software system, designed to translate data derived from Audio Precision 'System One' test equipment into AutoCAD™. This program enables graphical information to be plotted to a high degree of accuracy.

NOTES ON MEASUREMENT CONDITIONS

**ARCHITECTURAL
& ENGINEER'S
SPECIFICATIONS**

The system shall be of the subwoofer type consisting of one 15" (381mm) low frequency loudspeaker. 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 $\pm 4\text{dB}$ from 47Hz to 180Hz. Nominal impedance shall be 8 ohms. Power handling shall be 400 watts r.m.s., 800 watts program, 1000 watts peak. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 100dB. Maximum SPL (peak) measured with music program at stated amplifier input shall be 132dB. Dimensions: 559mmH x 450mmW x 578mmD (22"H x 17.7"W x 22.8"D). Weight: 34.6kg (76.1lbs). The loudspeaker system shall be the Turbosound TQ-115. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance / size specifications are equalled or exceeded.

DIMENSIONS

