



11L Classic

Performance that goes beyond the scale of its dimensions

QUAD

the closest approach to the original sound

11L Classic

According to Quad's philosophy, high fidelity equipment should add nothing to nor remove anything from the recorded sound. The Quad 11L Classic is designed to that tradition.

Because we manufacture every part of every loudspeaker from raw materials, our designers and engineers have absolute freedom in developing and experimenting with new design and materials. We can create a product with every part tweaked and honed to form a perfect symbiotic relationship with every other part. This is why, with Quad products, the whole is always much greater than the sum of the parts.

The Quad 11L Classic loudspeaker employs the format and characteristics of its award-winning forebears, but in its formulation and construction is a major advance in performance. It is tonally balanced to suit all music genres and is virtually unrivalled in its ability to retrieve all nuances captured by recording engineers, whilst avoiding a clinical sound. It is thoroughly musically involving for the listener and perfectly follows Quad's tradition of 'the closest approach to the original sound'



The 11L Classic Technology



Kevlar Cone Driver

The 11L Classic's long-throw Kevlar driver is manufactured using our proprietary bi-directional Kevlar weave, made from a self-damping resin-impregnated fibre form of the material that is then lattice woven to create the appropriate stiffness, strength and weight, and later formed into a cone and mounted on a butyl rubber surround.



Drive Unit Technology

A high efficiency, double hand-wound voice coil tracks the signal, with the high-gauss magnet assembly providing momentum for movement. The dual 25mm voice coil is wound on an aluminium alloy carrier or 'bobbin'. This dissipates heat from the central coil region to maintain peak performance and optimum excursion of the long-throw driver. The coils are vented to reduce the effect of any pressure build up in the central cone region. A strong die-cast aluminium alloy chassis assembly is an essential part of the design, keeping everything taut and under control, even when encountering large transients and extremes of power.



Driver Integration

The 11L Classic's tweeter utilizes a precision-engineered waveguide to integrate the midrange and treble in a totally coherent way. The motor system of the bass-midrange unit has been vastly improved for a more linear motion and lower distortion. Acoustically the drive units are combined by an advanced phase-linear crossover utilizing low distortion inductors and high clarity polypropylene capacitors in the signal path. Phase coherency is particularly important to ensure the bass integrates perfectly with the treble, and of course to create a truly holographic stereo image – the hallmark of the classic Quad sound.



Bi-Wiring

The 11L Classic has two pairs of binding posts for bi-wiring. This involves the use of two pairs of separate cables between the amplifier and the loudspeakers. One connects to the treble unit while the other to the bass driver. Using separate cables for treble and bass units reduces intermodulation effects while improving headroom and clarity.



Multi-Layer Cabinet Construction

The 11L Classic features a multi-layer cabinet construction coupled with additional internal bracing to significantly reduce cabinet colouration and resonance. Special internal long fibre damping is utilized to randomize internal reflections and thus prevent standing waves from forming. The result is that you hear the output of the drive units without interference from the cabinet structure or reflected sound from the internal volume.



Real Wood Veneers and Piano Gloss Finish

The 11L Classic is available in real wood veneer and piano gloss finish options. The real wood veneers are specially chosen and matched for each pair of speakers and then polished to reveal the deep grain pattern and depth of colour.

Lustrous piano gloss is applied to each speaker by hand over a period of seven days, each of which involves applying a coat of lacquer which must then dry at an ambient temperature before being cut and polished. The final coat is polished to a high gloss finish to produce one of the finest finishes seen on any loudspeaker in its class.



A Return to Tradition

The Quad 11L follows in the tradition of small, monitor class loudspeakers set by the BBC LS3/5a. This precedent set new standards for accuracy and midband definition when it was first introduced and is still held in high regard by audiophiles worldwide today.

A small monitor loudspeaker has distinct advantages both for near field monitoring and for music reproduction in the home. The use of a relatively small bass/midrange unit provides the possibility of excellent integration with the treble unit, delivering an accurate power response both on the forward axis and in the room.

As a result this mini-monitor design approach yields an expansive stereo soundstage that belies the size of the speaker itself, and the coherent midband gives lifelike reproduction of vocals and acoustic instruments.

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Drive unit integration

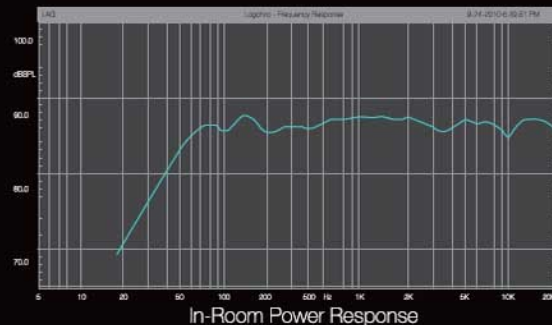
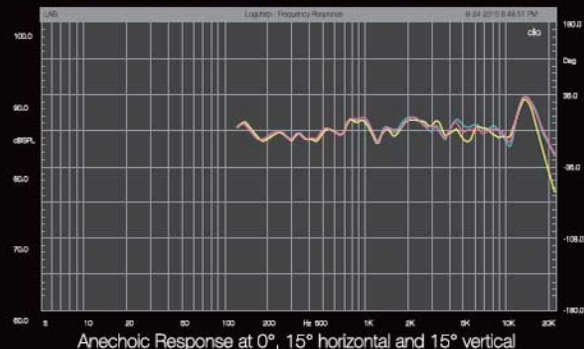
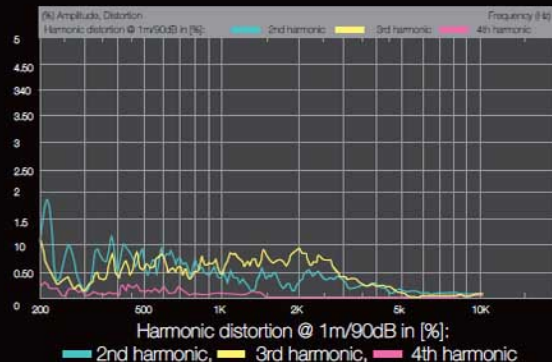


Quad 11L Classic has been fitted with an advanced motor system, coupled to the woven Kevlar bass unit cone, which results in much improved linearity and a substantial reduction in midband and bass distortion levels. As a result the speakers will play loud – no longer is the mini-monitor only suitable for small rooms. But of greater interest is the new profile for the treble dome. This takes the form

of a shallow horn/waveguide that controls the dispersion of the dome to mimic that of the midrange cone through the crossover region.

As a result the crossover becomes almost inaudible in the overlap between the drive units, yielding a coherent, detailed and remarkably lifelike midrange performance in a similar way to the coherence heard from electrostatic panels.

A flat frequency response is only one clue to the monitor-like accuracy. On both horizontal and vertical axes the response is maintained within $\pm 3\text{dB}$ giving a clue to the excellent power response heard in-room. Reflections from nearby walls, floor and ceiling, which normally skew the acoustic response heard by the listener and which increase coloration, only add to the overall acoustic power and do not distort the perception of the forward response.

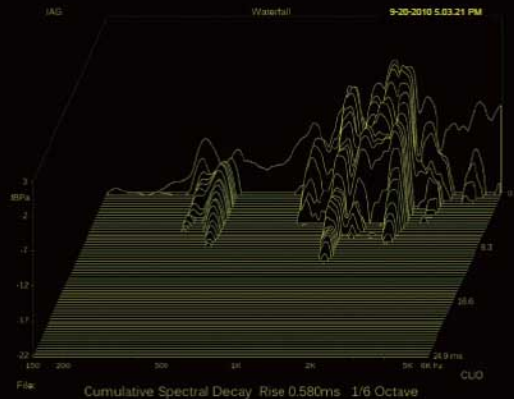
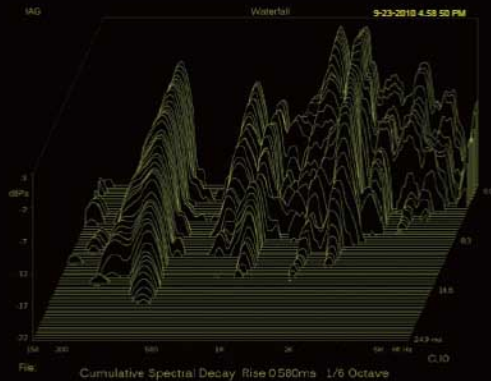


Cabinet construction

The BBC LS3/5a used a novel approach to cabinet construction to reduce the audible effects of panel resonance. Likewise the Quad 11L Classic also utilizes an intriguing method of reducing both panel resonance and the transmission of sound from inside the enclosure.

A combination of two differing wood materials is used for the carcass of the cabinet to reduce the audibility of panel resonance and to make the cabinet more opaque to sound. High density chipboard and fibreboard are laminated together in a structure that breaks up the resonant modes into multiple mini-modal frequency bands that lack the strong sonic signature experienced by more coherent panels such as MDF.

Interior sound from the bass drive unit is partially absorbed by specially selected long-hair acoustic absorbent applied to the cabinet walls. In addition the random particle structure of the chipboard provides a long and diffuse path for internal sound that tries to escape from the cabinet. The net result is that cabinet coloration is reduced in all its forms leaving the drive units as the primary sound reproducers.



QUAD 11L2 'Waterfall' Graph of Resonance of the MDF Cabinet Side Panel, Note the strong modes at 350 Hz and the high frequency transmission through the panel.

Crossover implementation

The drive units are combined by a sophisticated but electrically simple passive crossover that is integrated for both phase and frequency through several octaves either side of the crossover point.

Audibly the handover of frequencies between the drive units is seamless whilst the maintenance of phase allows a huge soundstage to be created between and around the speakers.

In order to reduce interaction between the physical components of the crossover, each section is placed on its own PCB mounted separately within the speaker cabinet. This also enhances the benefits of bi-wiring by allowing star-grounding back to the amplifier.

Component selection includes precision wound inductors, with the bass coils utilizing laminated silicon-iron cores for linearity, and polypropylene capacitors in the signal path



Bass Reflex design

To extend the bass to the lowest octave of sound reproduction the Quad 11L Classic is fitted with twin reflex ports that enable a physical crossover to the bass unit at 68Hz. Below this frequency the twin ports provide the majority of output.

The ports are placed on the rear panel to baffle any effects of airflow distortion and midrange leakage. The use of two ports reduces the velocity of the airflow enabling the speakers to be placed close to a rear wall without problems.



QUAD 11L – a New Classic

In the best Quad tradition the 11L Classic follows the dictum 'The Closest Approach to the Original Sound'. Majoring on timbral accuracy, exceptional detail retrieval and low colouration, the 11L Classic is everything a small monitor-class loudspeaker is meant to be, and more.

The more is the thorough enjoyment of music that the 11L Classic delivers to the listener. It is not critical of musical styles or recordings but will respond enthusiastically to high quality input and reward the listener with a rendition that lends insight into both the recording and the musical performance.

We are certain the Quad 11L Classic will join the small number of mini-monitors that have become classics in their own right amongst hi-fi enthusiasts the world over



Available Finish colours:

Veneer



Classique Cherry



Deep Rose

Piano



Classique Cherry



Black



QUAD 11L Classic

Format	Bookshelf	Sensitivity SPL/M @ 2.83V	86dB
Enclosure Type	2-way bass reflex	Volume	8.15 litres
Driver Units		Nominal Impedance	6 ohms
bass	-	Minimum Impedance	4.2 ohms
bass/mid	5"(125mm)	Recommended Amplifier	30-150W
tweeter	1"(25mm) Dome	Package quantity	1PAIR
Magnetic Shielding	NO	Dimensions (H x W x D)	310x190x230 mm
Crossover Frequencies	2.2KHz	Net Weight	6.3 kg each
Frequency Response +/-3dB	68Hz-23KHz	Gross Weight	13.8 kg



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