

Klipsch RF-7 III

Dubbed 'fire-breathing monsters' by Klipsch, do these horn-loaded floorstanders spark our imagination?

Review: **David Price** Lab: **Keith Howard**

Anyone who's heard a Klipsch loudspeaker instantly gets what the brand is about. Fast, lithe and punchy, the house sound might not be everyone's first choice for background music but over the course of 72 years the company has consistently delivered its own brand of visceral listening experience. In doing so, Klipsch has garnered a cult following – especially among tube amplifier fans – aided by the sensitivity of its horn-loaded drivers that typically push out a lot of sound from even quite modest amounts of power.

Nowadays the Hope, Arkansas-based company is a very sizeable concern that makes a vast range of speakers for practically any consumer or professional application and, latterly, headphones too. This wide range has also allowed Klipsch to move closer to the mainstream, as the £3750 RF-7 III that you see here illustrates.

It's the flagship of the current Reference Series of large floorstanding loudspeakers. Its RF-7 II predecessor gained a strong following among enthusiasts looking for a speaker that delivered 'a lot of bang for your buck', so it was always going to be interesting to see how this idea might evolve with future designs.

HOME THEATRE TOO

Launched earlier this year at CES, it shows improvements to the drivers, horn and cabinet. The UK pricing seems very keen given that it is both US designed and built, and considering the speaker's not inconsiderable size and weight. There's also an optional matching £1450 RC-64 III centre channel speaker, should you wish to build a home theatre system around it.

At the heart of the RF-7 III is a 1.75in (44.5mm) titanium diaphragm compression driver, delivering both treble and midband. This, as per Klipsch tradition, is horn-loaded with the company's hybrid Tractrix horn with a circular throat and square mouth

[see KH's boxout, p47]. The latest version is made out of a compressed, moulded rubber that claims to add high frequency damping to reduce harshness, and has no visible fasteners for a much neater look than its predecessor. The tweeter itself is a reworked version of that in the II, and boasts an 'enhanced phase plug geometry'.

STAR CHAMBERS

At 1.3kHz, the twin 10in (25.4cm) woofers kick in. With 'Ceramentallic' diaphragms, they're said to be Klipsch's best and include tough cast aluminium baskets and a dual shorting-ring magnet structure. This is said to eliminate modulation of the magnetic flux and reduce distortion. They are each reflex-loaded by a rear-firing port, and have their own chambers inside the cabinet.

The RF-7 III's cabinet design owes much to the company's pricier Reference Premier line. It's a pretty solid affair, even by the standards of its price class, and knocking it with your knuckle doesn't expose any particularly lively areas. It's a conventional box profile with no fancy tapers anywhere, although the

front baffle is chamfered outwards to aid dispersion. It comes in a choice of Black Ash, Natural Cherry or Walnut furniture-grade veneers and the review sample was finished to a very high standard.

Magnetic grilles are supplied, obviating the need for mounting lugs in the front baffle, for a smoother look. Round the back are the aforementioned Tractrix ports and two pairs of speaker binding posts, facilitating bi-wiring and bi-amping. Although beauty is in the eye of the beholder, there's no denying that the RF-7 III does look rather utilitarian. For better or for worse it doesn't feel like a

RIGHT: Each of the 10in 'Ceramentallic' woofers works into its own enclosure within the cabinet and each is reflex-loaded via a rear-facing port. The horn-loaded mid/treble array employs a titanium diaphragm compression driver



TRACTRIX HORN

To mathematicians, the tractrix is the involute of the catenary function (which describes the shape of a loose, frictionless chain under the force of gravity). To physicists, it's the path along which an object moves as a result of friction when pulled along a displaced axis. But to audiophiles it will always be the horn flare espoused by the great audio pioneer Paul Voigt, who was born in London of German parents in 1901. Over much of its length the shape of a tractrix horn closely follows that of the exponential profile of Webster's horn theory but the two diverge near the mouth, where the tractrix widens faster and terminates at right-angles to the horn axis. Mythical properties have been ascribed to the tractrix horn but the plain fact is that none of the classic horn profiles actually behaves as their progenitors supposed. KH

lavish piece of furniture like a Sonus faber, for example. Yet you can't argue with the great feeling of solidity of this loudspeaker: it is both large at 1245x352x454mm (hwd) and seriously hefty at 44kg.

Klipsch claims that its RF-7 III has a massive 100dB sensitivity [but see KH's Lab Report, p49], and powered by a Constellation Taurus power amplifier [HFN Dec '17] with dCS Vivaldi One front-end [HFN Feb '18], I found that this loudspeaker worked best about 80cm out from the rear boundary wall, slightly toed-in and not too close to any side walls. Its size means that using it in a small listening room is impractical. It needs a good deal of space – like editor PM's listening room used here – to really breathe.

FAST 'N' FUN

Although the RF-7 III is a long way from being the company's most niche product, it is still one of those speakers that some will love and others struggle with. It's not a 'sensible shoes' design that neither excites nor offends anyone – rather, it's flawed in some ways, yet in others brilliantly able.

The good news is that the RF-7 III doesn't hide its light under a bushel – just a few minutes in front of it with your favourite tracks will do. This is a big, powerful, punchy speaker that's exceptionally fast and lithe – yet it has a recessed midband allied to a solid bass and crisp treble. Not the world's most neutral design then, but...

Spin up a well-produced, well-recorded pop track such as Sting's 'Fields Of Gold' [Ten Summoner's Tales; A&M Records 540 075-2] and you're instantly transported to a place that's bathed in smooth, warm synthesizers filling a spacious acoustic. Inside this, one is particularly aware of the snappy

percussion, with tight rim shots, brilliantly carried maracas and delicate classical guitar work giving added rhythmic impetus.

The sound is immersive, and inside the mix there is so much going on. The frenetic speed of this speaker is quite addictive and seemingly able to convey the most subtle rhythmic inflections that make the sound so intricate and involving. Bass ties into this very well, being tight and tuneful. It's a lovely experience and quite unexpected at the price.

LITTLE VOICE

It's only when you step back that you begin to notice that the midband is slightly recessed. There's a sense of unevenness, almost like pressing the 'loudness' button on an old '70s stereo amplifier, and so the lead vocal is pushed a little too far back.

Tina Turner's 'Let's Stay Together' [Simply The Best; Capitol 7 96630 2] underlined this. This is a textbook example of a mid '80s pop production, thanks to its shuffling drum machine-generated rhythms and synthesised bass set in front of gliding synthesiser pads. Here, Turner's distinctively acrobatic voice, garnished by classical guitar flourishes, seemed rather shy. Below it, the taut bass throbbed away, and above there was even a slight given to some of the treble percussion work, including the hi-hats.

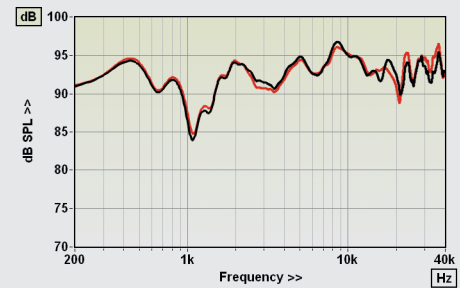
The speaker's ability to cast a believable soundstage was very impressive, although there's definitely a sweet spot in which you need to sit to really get the best view. Tinita Tikaram's 'For All These Years' [Ancient Heart; WEA 243877-1] was carried well by the RF-7 III, and with a good deal of atmosphere. Its horn-loaded drivers are more directional than is

LAB REPORT

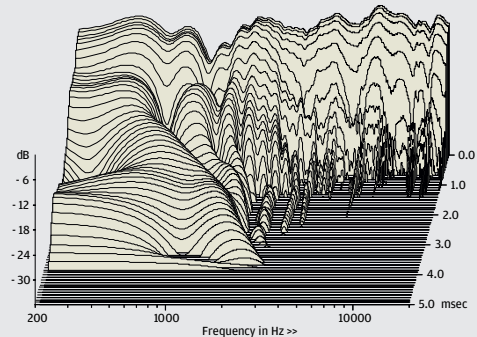
KLIPSCH RF-7 III

Klipsch claims an exceptional 100dB SPL sensitivity for its RF-7 III but our measured 92.8dB on pink noise suggests that figure might as well be plucked from the air. The RF-7 III is a sensitive loudspeaker, just nowhere near as sensitive as its manufacturer suggests. Low-ish impedance and moderate bass extension both contribute, so while Klipsch describes the RF-7 III as '8ohm compatible' its minimum modulus of 3.5ohm indicates a 4ohm nominal figure. Moreover, impedance phase angles are high, dropping the minimum EPDR (equivalent peak dissipation resistance) to 1.8ohm at 96Hz. While this is no worse than with many modern floorstanders, it means that the RF-7 III is a moderately challenging load to drive. Our diffraction-corrected nearfield measurements show the LF output to decline gently from 150Hz down to 45Hz, below which the roll-off steepens to fourth-order (24dB per octave), reaching 40Hz (-6dB re. 200Hz).

The forward frequency responses, measured on the axis of the horn tweeter [see Graph 1, below], feature a suckout of about 7dB close to the 1.3kHz crossover, with output rising thereafter to 9kHz. These result in response errors of ± 6.5 dB and ± 5.7 dB respectively (200Hz-20kHz), allied to a slightly disappointing ± 1.5 dB pair matching. Despite the treble prominence, the horn tweeter's restricted directivity will reduce treble power output and may result in a sound that lacks treble 'air', both because the spectrum of the side wall reflections will be denuded of treble, and because the room reverberant sound will lack treble energy too. The CSD waterfall [Graph 2] is mostly quite clean in the treble but with some suggestion of resonances around 1kHz. KH



ABOVE: Forward response shows a deep suckout at crossover while treble is less 'bright' than indicated



ABOVE: Cabinet resonances are modest but there are a series of (driver) modes, again, at 1-2kHz crossover

HI-FI NEWS SPECIFICATIONS

| | |
|---|--|
| Sensitivity (SPL/1m/2.83V - Mean/IEC/Music) | 93.6dB/92.8dB/92.6dB |
| Impedance modulus: minimum & maximum (20Hz-20kHz) | 3.5ohm @ 146Hz 63.3ohm @ 3.1kHz |
| Impedance phase: minimum & maximum (20Hz-20kHz) | -61° @ 66Hz 65° @ 1.7kHz |
| Pair matching/Resp. error (300Hz-20kHz) | ± 1.5 dB / ± 6.5 dB / ± 5.7 dB |
| LF/HF extension (-6dB ref 200Hz/10kHz) | 40Hz / >40kHz / >40kHz |
| THD 100Hz/1kHz/10kHz (for 90dB SPL/1m) | 0.1% / 0.1% / 0.5% |
| Dimensions (HWD) / Weight (each) | 1245x352x454mm / 44kg |

LEFT: Back view shows the two 'Tractix' reflex ports (one for each bass driver). Klipsch's two-way crossover is split, facilitating bi-amping and/or bi-wiring via its dual 4mm terminals

yet things sounded a little dour via this big Klipsch. The RF-7 III lacks the sheer transparency of some rivals and this manifests itself in a slightly artificial tonality. The more acoustic material you hear, the more the RF-7 III seems to bring a slightly processed feel to instrumental and vocal timbres. It doesn't quite have the warmth and evenness that's needed, making this recording sound just a little greyer than it really should. This is shame, given its obvious strengths elsewhere.

LILTING RHYTHMS

So while this is not the most tonally balanced box, the RF-7 III has a big heart that it wears right on its sleeve. It absolutely devoured Astrud Gilberto's classic cover of Jorge Ben Jor's 'Mas Que Nada' [Getz/Gilberto; MFSL 1-208]. This is a lovely slice of Latin jazz and the speaker captured its lilting rhythms with great aplomb. It was so expressive, in part due its speed and also its obvious acumen with dynamics.

Serving up a very tangible, vibrant, live sort of sound, this big box tracked the music's subtle dynamic inflections brilliantly. It sounded supple and fleet-of-foot, making me want to tap mine and forget about any sort of critical listening. For all its faults, the RF-7 III has a sunny disposition, just loves to party and really basks in the drama of the music. ☺

HI-FI NEWS VERDICT

All things considered, this is something of a flawed gem. Some might think the Klipsch RF-7 III just a little too crude, but others with gladly put up with its foibles because of the way it joyously unlocks the energy and emotion inside every recording. Factor in its fine build quality and sheer physical presence, and there's still an awful lot to enjoy about this big-hearted, barrel-chested floorstanding loudspeaker.

Sound Quality: 80%

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ideal, and this can influence the amount of treble energy coming out at you, but properly sited you could peer right into a three-dimensional space where those trademark tight-skinned snare drums so popular on late '80s recordings, held sway. There was little sense of the sound being fired out at the listener, and a great feeling of scale from left to right, especially. It's not quite fair to call it cathedral-like, but the RF-7 III can certainly fill a room.

Then again, just when you think this loudspeaker can do no wrong, it reminds you that it is in fact mortal. Elton John's 'Candle In The Wind' [Goodbye Yellow Brick Road; MFSL UDCD 526], is a warm recording