hi-fi news
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MARTINLOGAN SPIRE *(£7990)*

The Summit is conquered by MartinLogan's use of new materials and technology – the Spire hits a new peak

Review: Ken Kessler Lab Report: Keith Howard

Purists will never yield on the topic of full-range electrostatic vs hybrid. The reality is that ESLs need to be huge if they're to deliver deep bass and high SPLs. So *mazel tov* to those who can house and afford, say, big Sound Labs. For the rest of us, hybrids are a sane compromise. MartinLogan knows exactly what a dilemma this full-range-vs-hybrid scenario presents, as it manufactures both. It has been one of the few makers of hybrids able to 'unruffle' purist feathers, simply because ML speakers don't sound like hybrids.

With last year's release of a new full-range model – and, yes, the CLX is large and expensive – the company's attention has returned to the hybrids. For more than 25 years, MartinLogan has, beginning with its iconic curved panels, addressed frame material and rigidity, dispersion, crossover seamlessness, woofer speed and every other detail, eventually applying them to the bottom models. The Spire, the company's dearest hybrid beneath the CLX, is described as the first post-CLX model, and it benefits from every one of the company's trademarked technologies.

FEEL THE POWERFORCE

Its 1120mm-long diaphragm is the see-through, curved CLS XStat panel mounted in the patented AirFrame, operating down to 320Hz, where a 10in PoweredForce woofer takes over. In the earlier Summit, the crossover occurred at 270Hz. The driver consists of a cast basket fitted with a high excursion, aluminium, long-throw cone, housed in a non-resonance asymmetrical chamber behind and below the panel; this also houses a 200W (into 4ohm) amplifier. The Spire's dimensions are 1500x320x451mm (hwd), same as the Summit except for the latter's 520mm depth. Absolute height alters depending on the use of spikes or floor-friendly feet.

Here's where we see how MartinLogan slightly downsized and down-priced the Spire relative to the Summit, which it replaces: one less woofer and one less amplifier per speaker, and simplified controls at the back. The Spire offers only a single 35Hz (±10dB) level control in place of the Summit's 25Hz and 50Hz controls, yet one doesn't feel any loss of control. I certainly had no trouble tuning the speaker to my listening room; then again, resonance-wise, that chamber is built like a fallout shelter.

Although the Spire has a claimed frequency response of 29Hz-23kHz ±3dB compared with the Summit's 24Hz-23kHz ±3dB, with 1dB less sensitivity at 91dB/1W, the impression with all controls flat was of considerably deeper, more robust bass. I am absolutely at a loss to figure how MartinLogan managed to halve the woofer/amplifier count and still deliver an apparently fuller, richer sound. Dispersion was virtually identical, and the midband character displayed the strong family resemblance that encourages me to live easily with the Summits on a daily basis.

SUMMIT TO SPIRE

With its bass box depth 70mm shallower than the Summit's, the Spire exemplifies how trickledown technology benefits the user – especially as size is now a major issue. Most of the developments related to the electrostatic panel, the chassis, the woofer, *etc*, were in place for the CLX, so ML hands a lot of credit to their Vojtko crossover for the transformation from sublime Summit to the even more sublime Spire. Custom-wound transformer, air core coils, polypropylene caps, hand-built – this is pure audiophilia. No surprise giving credit here, then, as the crossover is the key to the success of any hybrid. And however seamless the Summit seemed, the Spire is even more of a whole.

ABOVE: The split crossover facilitates bi-wiring/amping. The LF roll-off of the bass section may also be fine-tuned

AUDIO FILE

Powered hybrid electrostatic loudspeaker

Manufactured by: MartinLogan

Supplied by: Absolute Sounds

Price: £7990-£8460

Telephone: 020 8971 3909

Web: www.absolutesounds.com

TIME FOR TEA

Driven by the magnificent Krell S300i, or even the Quad 909 if you wish to save a few pounds, the Spire demonstrated every quality that sold me on MartinLogan hybrids over a decade ago. Cat Stevens' remastered *Tea For The Tillerman*, through the Musical Fidelity kW25 CD system, reminded me that producer Paul Samwell-Smith played bass for the Yardbirds: although that band's recordings lacked the sonic superiority they merited, they were rich-sounding and inventive. Samwell-Smith imbued *TFTT* with the most lush mid-to-lower-octaves imaginable from voice, acoustic guitar and electric bass.

'Fed by Son of Dave's *02* album, the Spire suddenly turned the room into a jukejoint'

The violins on 'Into White' are silky yet clear, and precisely located. When one considers that most of the tracks feature overdubs, the skills of this producer in creating a sonic whole are remarkable – just right for testing the Spire's consistency.

Although there's a tendency to focus on the Spire's bass performance, not least because of the lushness and control, the meat of the speaker is the ESL component. Stevens' voice always appealed to those conducting demos because of the texture, and the emotion he conveyed with it. However hippy-dippy/soppy/right-on was the era and the sentiments, the album sounds through the Spires like the aural equivalent of comfy slippers or a soak in bath salts. It's not so much a wall of sound as a tapestry. ⇨

ABOVE: Bass frequencies are handled by this 10in driver, working into a sealed lower enclosure

But *TFTT* rarely sounds less than magical. Fed by Son of Dave's raunchy album, *02*, a speaker which had just demonstrated its prowess with the silkiest of material suddenly turned the room into a jukejoint. Harmonica rasp, heavy footfalls, breathy vocals with a sneer: the openness of the Spire allowed the atmosphere of the recording to breathe into the room, derived from sounds that are both urban and primitive at the same time. The lower registers and fast treble of the Spire are just what's needed to reproduce manic harmonica and makeshift percussion, with weight down below and fast transients up above placing this eccentric blues belter into the space between the speakers.

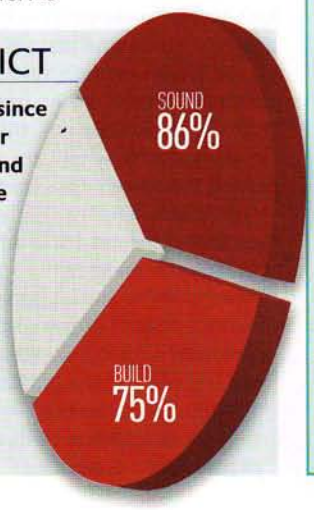
SWEDE SOUNDS

From the sublime to the delirious: Abba's breathtaking 'Take A Chance On Me' spread across the room, filling it from left-to-right and front to back. With harmonies meshed, the guitar licks and strings and synth fills popped in and out of the sonic picture with speed and surprise. The Spire sounds so clean, so clear, so naked and so transparent that you soon understand why Abba is as irresistible as a newborn kitten. Yucky? Two-fingers down your throat? Perhaps, but sometimes a touch of saccharine is needed to counter bitter herbs.

Paired with Krell's sub-£3000 masterpiece of an amp, the Spire delivers for £10,000 what I would accept as a bargain at £20,000. It satisfies on all levels: tonal quality, authentic recreation of space, detail retrieval. For ESL fans who need bass and level, it's as welcome as anything ML has delivered over the years. Just what will the forthcoming Summit X offer?

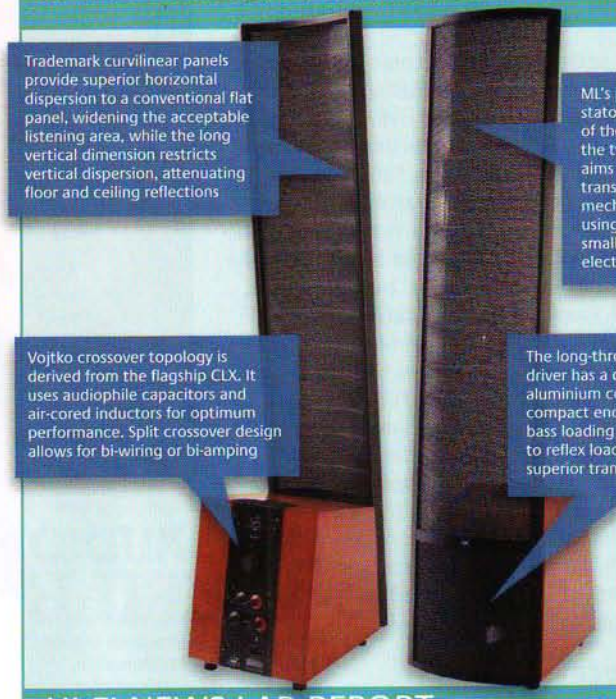
HI-FI NEWS VERDICT

Having used Summits daily since 2005, I'm staggered by their consistency, 'listenability' and overall competence. They're probably the speakers I'd keep if I had to get rid of everything else: all the virtues of an electrostatic, plus higher SPLs and real bass. What I didn't expect was to hear them bettered by the downsized and downpriced Spire!



MARTINLOGAN
SPIRE LOUDSPEAKERS / £7990

hi-finews LAB RESULTS



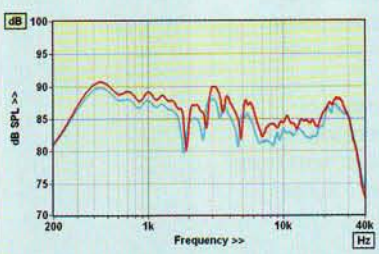
HI-FI NEWS LAB REPORT

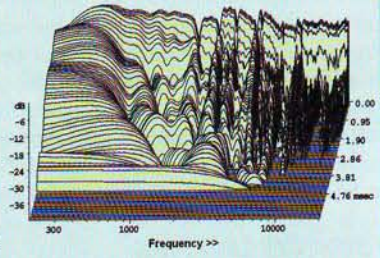
MartinLogan claims a high 91dB sensitivity for the Spire but our measurements recorded a more average 86.8dB on pink noise and slightly less on music-shaped pink noise. The frequency response trend [see graph, below left] is generally downwards from 400Hz to 10kHz but with considerable unevenness between 1.8 and 7kHz. Together these features account for frequency response errors, 300Hz–20kHz, of ±5.3dB and ±5.0dB respectively, which are on the high side.

Pair matching is poor at ±3.8dB over the same frequency range although some of this disparity may be accounted for by small differences in microphone positioning relative to the large electrostatic panel. Note that the roll-off below 400Hz is due to the crossover to the moving coil bass driver. Bass response could not be measured because the fixed grille makes it impossible to place a microphone close enough for accurate near-field measurements.

Otherwise, the Spire presents a frighteningly challenging load to its partnering amplifier. MartinLogan admits an impedance modulus of 0.8ohm at 20kHz (we measured 0.9ohm), which is bad enough, but this is accompanied by high phase angle, so that the EPDR (equivalent peak dissipation resistance) at 20kHz is only 0.4ohm – and decreases yet further at ultrasonic frequencies. Note that no 10kHz THD figure is quoted in the test table because the driving amplifier took exception to this punishing load, generating a high level of distortion.

The origin of the on-axis response unevenness is clear from the messy cumulative spectral decay waterfall, which reveals a series of strong lower-treble and upper-treble resonances. **KH**





ABOVE LEFT: The response trend is generally downtilted with some unevenness through upper mid and treble; ABOVE RIGHT: The same peaks are evident as panel/structure resonances on the waterfall plot

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1m for 2.83Vrms – Mean/IEC/Music)	84.7dB / 86.8dB / 86.5dB
Impedance modulus min/max (20Hz–20kHz)	0.9ohm @ 20kHz 62.4ohm @ 20Hz
Impedance phase min/max (20Hz–20kHz)	–87° @ 20Hz 16° @ 848Hz
Pair matching (200Hz–20kHz)	±3.8dB
LF/HF extension (–6dB ref 200Hz/10kHz)	See Report / 36.5kHz/38.3kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL at 1m)	0.4% / 0.2% / See Report