

EXCLUSIVE

Twin peaks

Townshend's latest speaker was created to complement wide bandwidth formats. But can we hear it?

Super-tweeters are very strange things: plug a pair directly into your system in place of your usual speakers and you'll be hard pressed to hear anything coming out of them. But add them to an existing pair of speakers to extend the treble bandwidth out to places only the cat should be able to hear, and they change the sound of the system.

The CD format was created with a bandwidth that goes no further than 20kHz, the theoretical limit of human hearing; after all, even harmonics don't go that high. Yet super-tweeters are designed to extend a speaker's normal high frequency of 20kHz, at best up to 50kHz and beyond. This is not because we've suddenly evolved better hearing, but because the effects of what happens at high frequencies are reflected in the audio band.

One of the main factors behind the wide bandwidth of DVD-Audio was the discovery that by increasing bandwidth from 20kHz to 48kHz, a more natural sound could be achieved with digital audio.

The Townshend Super Tweeter claims a bandwidth that extends to 100kHz (-3dB) and is half as loud at 500kHz. It achieves these staggering results by employing a short ribbon drive unit and some very powerful magnets in a compact stainless steel case.

While ostensibly designed to take advantage of the extended response of the new high-resolution formats, it is suggested that having extra bandwidth is advantageous, even with more limited sources such as vinyl, CD and DVD-V.



VERDICT

Townshend Super Tweeter ultra high frequency loudspeaker £800/pair

Increases the resolution from already very good systems and adds a degree of naturalness that's rare.

Price. Only flat-topped speakers are suitable.

CONCLUSION These are a highly effective means of improving already very good systems, enhancing naturalness and resolution.

KEY FEATURES

Frequency response (selectable): 20/30kHz - 100kHz -3dB

12kHz - 500kHz -6dB

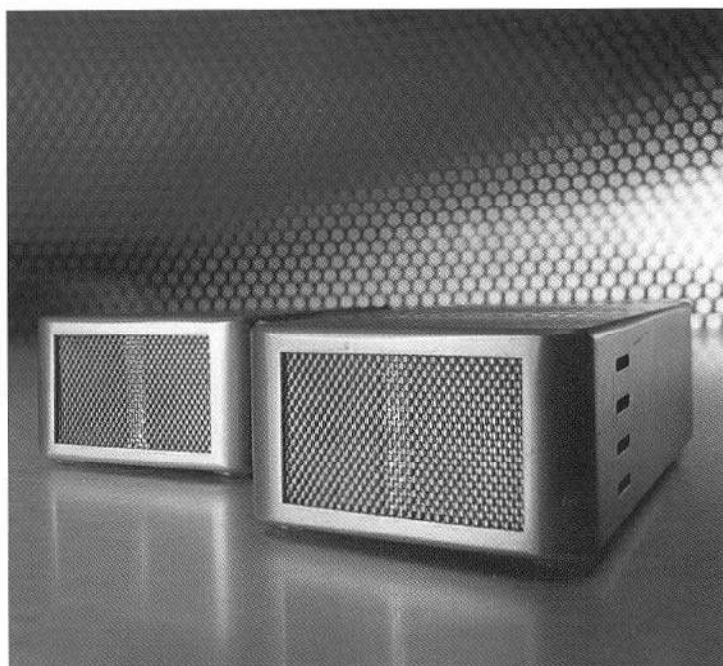
Sensitivity (selectable): 96/94/84dB 2.8V (1 watt) @ 1m

Impedance: eight ohms; 20kHz-100kHz

Power rating: 500W

Dimensions: 50x30x100mm

Case: matt stainless steel



The Super Tweeter can extend the bandwidth of your speaker with astonishing results.

PERFORMANCE

A pair of Super Tweeters was tested with Living Voice Avatar OBX-R and Audio Physic Spark speakers. One was placed on the top of each speaker and connected via supplied cables to the high-frequency feed for the speaker below. They could be connected to the amp, but that leaves more cable trailing around the room without advantage.

The effect of using the STs with the AP Spark is quite dramatic. They add depth to the image and open up the soundstage - there's more of the 'air' from the original recording in the sound. Definition also seems to improve, and with some discs there is an increase in 'liveness' and energy in the sound. Occasionally, the STs have an obvious effect on balance, the plucked piano strings on Sidsel and Bugge's *Out Here In There* jumping out from the mix, for example.

On the more relaxed LV Avatars, the tweeters have a less dramatic, but nonetheless intriguing effect. The first thing you notice is the extra charge in atmosphere, a shimmer from the disc that makes the music more real. They clearly

add low level detail and it becomes easier to follow the various instruments in a mix. This is the case with CD, LP, DVD-A and SACD. Imaging is distinctly more precise, an effect that occurs whatever the balance of the material. This suggests that ultra high frequencies are present in even relatively low-frequency material.

The benefits on offer will depend on the quality of your system, but if it's of the performance envelope-pushing persuasion, the Townshend Super Tweeters will undoubtedly take it, and you, to the next level.

Townshend Audio 0208 979 2155
www.townshendaudio.com

ALSO CONSIDER

TANNOY ST100 £1,200

Titanium dome-based design with similar effects, but less high frequency extension.

TANNOY ST50 £600

More affordable variant on the dome theme, with three sensitivity and three roll-in options.

TAD PT-R9 \$775 EACH

Ribbon device from Pioneer's professional division with a phenomenal reputation but limited distribution, hence the dollar price. Available from www.pioneerelectronics.com

