



PMC

twotwo.6

“Congratulations - you have joined the elite” promises the twotwo.6 manual just as you begin reading. The KEYS review investigates just how closely these new active monitors from English manufacturer PMC live up to this confident statement...

Even as you unpack, the high standard of design and finish is clear. The twotwo.6 casing is made from HDF, and as a result these are, at 7.9kg, pleasantly light yet stable monitors when compared to others of their size. The matte, lightly abraded finish feels good to the touch and looks equally impressive. On all four sides, rubber feet are used to allow the monitors to be used in a variety of positions. In this way, you can decide whether to use the monitors vertically or horizontally, or with the HF driver on the upper or lower side, quite independently of your listening position. And the rounded corners of the casing and the seamlessly fitted drivers are the kind of high-quality league stuff we've come to expect from PMC.

Connections & Operation

The rear panel offers analogue and digital audio connectors on XLRs, as well as an additional unbalanced analogue input on RCAs, which is useful for work on the move if you don't have the right adapter. Main functions are accessed via a two-line LED display and four

buttons. As well as choosing whether you're using the analogue or digital ins and the input level, this is where you access the built-in DSP, which offers a high-pass filter with five cutoff frequencies, as well as a switchable

connected twotwos and will function as a master volume controller.

ATL Technology

PMC's design approach is to have soft-dome tweeters handle the high

“ATL active monitors use PMC's own development of the transmission line principle for low-frequency reproduction.”

low/high-pass filter which can raise or cut by ± 4 dB between 500Hz and 1kHz. However many twotwos you have, they may all be linked by the two rear-panel RJ45 connectors, whereupon all of the settings made on the chosen 'Master' loudspeaker are transmitted across all of the linked slave monitors - a particularly useful feature. The CAT5 connection can also carry your digital audio signals, which can greatly simplify your cabling. Furthermore, according to PMC's distributors, a hardware remote will shortly be available, which controls the DSP functions for up to 12

frequencies, while employing the principle of the transmission line for low-frequency reproduction. In contrast to bass reflex technology, which may seem similar at first glance, this makes use of a precisely calculated curved internal conduit that functions like a resonator, creating additional sound energy in the bass region, and giving a very low frequency response from a relatively compact cabinet. The entire system functions like a second, phase-synchronised driver. Transmission line designs do suffer from negative effects, specifically on the reproduction

of bass and low-mid frequencies due to reflections within the transmission line itself, but in PMC's ATL these are prevented by damping with specially designed acoustic foam. In addition, the bass driver and transmission line are designed in order that the air pressure inside the cabinet remains constant. In this way, the bass driver is not overworked, increasing its efficiency and preventing non-linear distortions and the masking of higher-frequency information. Also, the bass response remains uniform at all listening levels, thanks to the fact that the relative pressures remain constant. This is usually only the case with monitors with a very narrow dispersion - and such monitors are often not very powerful in the low-frequency region.

Digital Or Analogue?

When setting up the twotwos, you first have to decide whether to connect them in the analogue domain or digitally. The advantage of going digital is that doing this spares you two conversions in most cases: firstly, a D/A from your system's audio interface to the monitors, and secondly, the A/D conversion inside the twotwos themselves, before the DSP section. On the other hand, control of playback level can be problematic in digitally connected systems, particularly if you're working on material with a wide dynamic range, or which requires variable monitoring levels. If you reduce the level of an audio signal digitally to too great a degree - for example within a DAW - distortion in the signal rises, which can lead to unwanted changes in your audio. In the future it will be possible to



DSP settings can be made centrally on a single loudspeaker, and are then carried to all the others via the CAT5 connection.

do something about this with the volume remote control mentioned earlier, which will allow a bit-transparent adjustment of the level to be made within the DSP section of the twotwos. Alternatively, you can use the analogue inputs. These employ a preamp situated before the A/D converter, giving you the best possible digital conversion provided you choose your gain structure carefully. I performed an A/B comparison on the two different input options and found them both pleasing: in my opinion the PMCs sounded rather more powerful in the low-mid range when hooked up via the analogue inputs, perhaps a shade 'fatter' in tone or maybe just 'more analogue'. What role the A/D converter in the PMCs plays in this process is difficult to judge, as the other equipment in your setup - in my case, D/A converters from Metric Halo and Grace Design - affect the sound slightly. On the other hand, I can attest to a certain additional transparency to the sound of the twotwo.6 when it is connected digitally. The differences were only audible in extremely fine details, and even then were more or less audible dependent on the reference material I was using, which leads me to think that the decisive factor in whether to go via the analogue or digital inputs will probably be down to personal taste and what users have in their existing setups.

In Use

Listening back to reference material through the twotwos, the first thing I noticed was the astoundingly well-defined reproduction of the bass. The PMC behaved in a very linear fashion right down to a low E note in keyboard terms (ie. E1), and even the fundamental of a low B (ie. B0) was only reproduced at a slightly lower level. The low mids sounded transparent and finely graded, while the upper mids and highs rang open, airy and with presence. The resulting good stereo image and fine resolution of the bass allowed excellent, stable localisation of sound sources at precisely defined positions in the mix, and represented spatial elements of the mix in detailed fashion - and all independently of the listening level. The high-frequency driver exhibited a subjective over-emphasis, which manifested itself in vocals in the form of prominent 's' sounds as well as in other places, but was easily

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Distributor: SMM
Internet: www.smm-online.de

- Wide stereo image with precise localisation
- Highly constant, linear frequency response across the entire dynamic range
- Audio and data networking possible via CAT5 connection; an optional remote control has also been announced

matched to my personal tastes and choice of listening distance with the high-shelving filter in the onboard DSP section. While working on mixes, I was impressed by the accurate reproduction of transient information, which allowed me to make intuitive choices regarding compressor settings, gain structure and fader automation in order to make a lead vocal sit in the mix. Lastly, by way of experiment, I listened to a few finished mixes, whereupon various unsatisfactory details that I hadn't previously noticed leapt out at me. After a quick 'remastering' session, in which I attempted to polish these faults with the aid of EQ and multi-band compression, and after cross-checking on my usual reference monitors, as well as on a hi-fi system, the amendments I'd made all resulted in subtle improvements.

Summary

In an acoustically treated working environment, the PMC twotwo.6s proved their potential to an impressive degree. The speakers' bass response extends down to 40Hz, making a second mid or far-field system almost redundant, and delivers a consistently good performance at all listening levels. The airy sense of resolution in the high frequencies, together with a transparent, impulsive mid-range and high acoustic output, allows users to record and mix at the highest level. Last but not least, the twotwo.6s' wide, precise stereo imaging and high-resolution bass response makes them well-suited for most mastering applications. In the face of such outstanding overall performance, the price seems appropriate.

Martin Person