

Simplicity is a dream no longer, as SIMON TILLBROOK finds he's very much awake while testing DPA's surround mic.

Danish company DPA Microphones has considerable experience with all things microphone, including the area of surround recording. DPA provides matched microphone kits, as well as setup frames for a full matched set of five microphones or Decca tree.

These surround arrangements give great flexibility, but are not straightforward to setup and often require secondary systems to derive the final feeds. Broadcast is one area in particular where a simple quick surround arrangement is a real requirement in these days of HD broadcast.

DPA recognised this and set out to address this requirement with the DPA 5100 Surround Microphone.

The preferred and illustrated monitoring setup for the DPA 5100 conforms to the ITU-R BS.775 standard, and this was the arrangement I used for final listening of my various recorded sources with which I tested the 5100.

### In use

I first set up the DPA 5100 within the studio to get a sense of the overall sound produced by each of the feeds and some detailed assessment of the sound space. I had a full surround monitoring system set as previously described to run these initial tests.

One immediate advantage of the DPA 5100 over other surround arrays is the speed and ease of set up. A simple

## DPA 5100

### Mobile Surround Microphone



#### Overview

The DPA 5100 is a 5.1 discreet analogue array housed in a compact sealed padded enclosure that resembles a large bicycle seat in shape. It is extremely lightweight at 530g (18.7oz), and touted as an HDTV 'ambience adder'.

On both the top and bottom of the DPA 5100 is a 3/8-inch screw mounting point for stand or boom, or an optional camera mount.

The five microphones within the DPA 5100 require phantom power to operate. This is supplied and signal is received via a sixteen foot balanced Mogami multi-core cable. A multi-pin Lemo connector fits to the DPA 5100, terminating at a set of six colour-coded XLRs. A cover is also part of the kit, giving additional protection against wind and resistance to rain.

#### Array

The array of microphones in the DPA5100 needs a little description to fully understand the array and to see the attention to detail taken by DPA.

All of the five microphones used in the DPA 5100 are pressure Omni directional units. These were chosen as they exhibit a number of traits that lend themselves to the applications that the DPA5100 is clearly aimed at. Low sensitivity to general wind and handling noise, no real proximity effect to speak of, and very low levels of distortion/coloration lead to a more natural representation of the audio source.

The front three microphones within the DPA 5100 are arranged using DPA's DiPMic (Directional Pressure Microphone) technology. The three front channel mics are time coincident allowing for solid stereo and mono feeds. The microphones are given a focused directional quality by a number of small baffles separating each, and the use of interference tubes like those used in shotgun microphones.

The two surround microphones are separated by a small baffle, but exhibit an overall wider pickup.

The LFE channel is electronically derived from the sum of the front left and right microphones with a roll off set to 120Hz and 10dB of attenuation.

One of the effects of the use of interference tubes is to heighten the effect of the high frequency response of the microphones, so the LFE acts as a natural fill-in when balanced with these channels.

The simple, but well written, accompanying manual for the DPA 5100 gives very clear polar illustrations for the pickup of each microphone, as well as guides to fold down balances for stereo and mono configurations and rear channel delay settings.

lead from the DPA 5100 to the preamps and nothing more: a real plug and play arrangement.

The DiPMic configuration with the front three channels achieves a very tight and defined pattern. Having a sound source move around the DPA 5100 illustrated great definition without excessive spacing, and a very smooth, naturally detailed, and crisp sonic response.

The slightly bright nature of the front channels is superbly supported by the LFE feed derived from the front left and right resulting in excellent balance. Armed with a basic DAW system, and a rack or preamps, I set about running a number of environmental tests with the DPA 5100.

I placed the DPA 5100 on the touchline to capture a football game, one of the applications that the DPA 5100 will be used for I am sure. The wind noise handling is extremely good indeed with no real effect to speak of, and use of the additional weather protection cover did not significantly impact the detailed sonic characteristics of the microphones.

Great definition and, once again, it is worth mentioning the very natural output of the DPA 5100.

The lightweight DPA 5100 was no real problem when boom mounted with no handling noise transferring through to microphone. The internal mounting of the DPA 5100, which is impossible to see without destroying the microphone, must be well dampened I suspect. I would expect that, with the additional camera mounting, noise levels would be equally low.

#### Conclusion

The DPA 5100 is a dream in its simplicity of setup, and produces very natural sounding smooth results with great phase coherence and channel definition.

As a straightforward plug and play microphone for broadcast use, I can see the DPA 5100 finding a lot of fans very quickly. As a surround microphone for studio applications, the DPA 5100 may not have the positional flexibility of a separated microphone array, but I did not miss this with such an enveloping performance. **1/5**

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#### INFORMATION

€2,500.00 (exc.tax)

DPA Microphones A/S, Gydevang 42-44, DK-3450 Alleroed, Denmark

+45 4814 2828

+45 4814 2700

www.dpamicrophones.com

info@dpamicrophones.com

#### THE REVIEWER

SIMON TILLBROOK is the Principal Music Tutor at Islington Music Workshop in London. The rest of his time is spent as a freelance engineer, mainly in the USA.