

DPA d:vice MMA-A Digital Audio Interface

NIGEL JOPSON enjoys some mobile audio thanks to an innovative interface from the Danish microphone manufacturer.



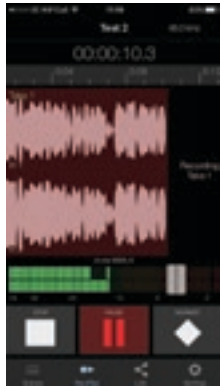
The d:vice is a two-channel microphone preamp and ADC offering mono, dual and stereo capabilities, supplied with Lightning and USB cables. MicroDot inputs allow the d:vice to be connected to all DPA miniature microphones capsules, including the d:screet Miniature, d:fine Headset, d:vote Instrument and d:dicare Recording microphones with the optional MMP-G preamp. Measuring a mere 56mm (2.2") in diameter, just 13mm (0.5") deep and weighing 50g, the d:vice is small enough to fit a pocket and light enough to be securely taped on location.

DPA have taken the clever strategic decision to control the d:vice via a middleware app on iOS. This was a canny design choice: many iPhone videographers will already be using Filmic Pro or Mavis, and many video shooters/soundies who use iPhones as recorders have standardised on MetaRecorder, because of its ability to work in a Master-Satellite mode linking 4 iPhones. Future firmware updates for the interface can also be delivered via the app: updating the app will automatically update the firmware, which takes about one minute to conclude. The ability to set gain individually for 2 channels within an iPhone is quite unique, as the iOS environment normally only allows one parameter for gain. The d:vice app allows users to store settings in dedicated presets, and passes the audio through to other apps for actual recording.

The d:vice app is a free download from the Apple App Store, and offers the facility to adjust Gain, set Mono (a single mic is sent to both channels) Stereo or Dual modes, engage an 80Hz 2nd Order high pass filter, monitor input and save settings. I successfully tested the d:vice recording audio to video with FilMiC Pro, the iPhone standard Camera app, and recording audio-only to MetaRecorder plus GarageBand. If an iPhone headset with microphone is used for monitoring, headset must be connected prior to the d:vice to prevent the headset mic being used - due to iOS 'last entry active' behaviour. A "Lock" button prevents 3rd party apps from controlling gain



when engaged: this came in handy when using MetaRecorder, as I had a few random feedback/gain events before I realised the need for it! The Lock feature will also be welcomed by broadcasters assembling a package with the d:vice and appropriate microphones for non-technical journalists. The usefulness of the d:vice for ENG is clear. The two channels (one for reporter, one for interviewee) and DPA mic quality will make for a big step up from some of the reporter-mic solutions currently employed. Live streaming apps have transformed the mobility and speed to transmission for news gathering, but sometimes quality has been questionable. Without a sound operator, it's to be expected that reporters in the field struggle with some of the less-than-ideal solutions they've been provided with. The renowned resilient quality of DPA lavaliers, secure connections on the d:vice and simple controls on the app will bring an improvement for any broadcaster who invests in the d:vice. I tested the d:vice with Voddio and Report-IT, two live reporting apps for iPhone which stream (bi-directionally, with talkback, in Report-IT's case) via a codec address over cellular networks. Once set and locked, the d:vice app successfully passed high quality audio through to the live stream with no complications.



In terms of production sound, I believe the d:vice will appeal to two groups of users. The experienced soundie, who probably already owns a mini-arsenal of DPAs, will welcome an on-talent recorder which comes pre-equipped with MicroDot connectors. The d:vice (£430 ex VAT) will also appeal to the self-op, run-and-gun videographer looking to upgrade audio. DPA have five different kits: the d:vice 4060 Lavalier Kit (£630), Double Lavalier Kit (£895), dD:Fine 66 Headset Kit (£765), d:fine In-Ear Headset Kit (£835), and finally the VIDMK-HYB1 d:vice Digital Audio Kit (£1,785) which Resolution tested, which contains a d:screet 4060 Lavalier and d:dicare 4018 mic.

The omnidirectional 4060 is well known for its natural sound, on or off-axis, which has assured its popularity. When mounted in classic broadcast position on the chest with a clip, this mic is capable of remarkably full sounding vocal reproduction. For street interviews where intelligibility is paramount, I get a better result mounting with the diaphragm pointing upwards on a shirt collar. For action sports, I've had success taping the little beast to hat or helmet brim, facing down, which produces a thinner vocal

tone, but is more isolated from vibration and avoids off-mic moments. I'm always impressed with the full-range sound theatrical engineers manage to get by taping DPA omni lavaliers to actors' foreheads, normally just around the wig/hair line.

The 4018 is a supercardioid capsule, part of the multi-faceted d:dictate microphone series. I was surprised at the extent to which the usual rear lobe of a supercardioid is reduced with this design: if you face the capsule away from an unwanted noise source, you'll benefit from a large amount of spill rejection. If the 4018 is located where the talent feels obliged to "speak into the microphone", some care is needed with positioning and windshields to avoid pops and windblasts. The 4018 would be a great mic to use in a rostrum setup, or in any situation where several different people present themselves in a high-background-noise environment to give statements. DPA's UK distributor, Sound Network, have some interesting videos and downloadable .wav files on their YouTube channel, demonstrating this mic's capabilities in a podium-style setup.

Overall, I was very happy with the performance of the d:vice when recording to the iPhone. The only improvement I could suggest would be to add a Dual Mono mode to the app, where, in the event of using a single microphone routed to both L & R, a reduced gain, backup-capture recording could be set for one channel. Some portable recorders have this feature as a preset and, while I am by nature a conservative level-setter, it has sometimes proved useful — in light of unexpected events — to have an extra recording with 16dB more headroom! The d:vice is also supplied with a USB cable for Mac or PC connection, and serves very well as a high quality preamp/ADC at sample rates of 44.1kHz, 48kHz and 96kHz. It is necessary to ensure the d:vice gain controls are unlocked from the iPhone app before using with a Mac, otherwise Core Audio will be unable to offer input gain adjustment.

If you already own MicroDot-equipped DPA microphones, the acquisition of a d:vice is a no-brainer. It will deliver high quality recordings when the use of wireless packs is not desirable, or could be used as a backup to wireless with identical mics. The miniature bits and bobs required to mount DPA capsules will be second-nature for production sound pros, but I suspect the sets which DPA have pre-packaged are more likely to be purchased by videographers seeking to upgrade sound quality. Although the operation of the d:vice itself is incredibly simple, DPA might usefully include a little booklet explaining various methods of mounting microphones, and how the tiny K'Nex-like clips for DPA capsules should be assembled, for the benefit of audio neophytes.

With a quoted noise floor of -114 dBFS, THD of 0.001% (1kHz, -10dBFS), the recording quality of this DPA rig exceeded any other iPhone setup I've used. The d:vice is a worthy addition to the renowned DPA microphone portfolio, is sure to increase sound quality for many ENG users, and will provide established production sound pros with welcome extra options on-set. ■

PROS Fantastic quality, low-noise 24 bit recording, with <100mA current consumption, delivering hours of audio on iPhone.

CONS None. DPA could usefully improve their bundled products with an instruction book aimed at videographers.

Contact

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