



# Lectrosonics DSQD

**SIMON CLARK** finds it's hip to be square

The Lectrosonics Duet fully digital wireless IEM products were reviewed in *Resolution* V17.3. Although I didn't voice it at the time I was thinking "Well this is truly excellent, but they are radio mic manufacturers, so why haven't they made a radio mic system using this technology?" The wait is now over and I think it was worth it!

While other companies jumped straight in at the digital deep end, Lectrosonics sidled somewhat cooly up to the issue at first, producing the excellent Hybrid range. These products were a big step forward because they removed the dreaded compander, but keeping a toe in the analogue world was never going to be the ultimate answer. The claimed specifications of the fully digital DSQD range are impressive. Frequency response 20Hz-20kHz +/-1dB, with a dynamic range of 108dB and ultra-low distortion. Lectrosonics publish an analogue end-to-end latency of 1.4ms, which makes me smile because manufacturers are now queuing up to beat each other by 0.6ms — which you or I cannot detect. To put it in perspective, in that time a sound wavefront travels under 21cm. Specifications are fine but the most important things are: how does it actually sound and how easy is it to use?

## Built to withstand nuclear attack

The DBU digital bodypack transmitter uses the same housing as Lectrosonics' LT model, with the DBU weighing-in just a little heavier (by 2.8gm). Like the LT, it is machined out of an aluminium billet and thus built to withstand a nuclear attack. Personally, I would happily take a little more care with the unit in exchange for



/ Digital receiver rear

less weight. To be fair, Lectrosonics make lighter, smaller, Hybrid transmitters — and this is the first (premium!) product in the new range. Current users of the brand will find the well thought-through menu system familiar along with the membrane switches which operate it. I still don't like these, finding them fiddly, but I expect I am in a small minority. With digital modulation comes the facility to encrypt transmission, which could prove popular on reality shows and big budget dramas with secrecy surrounding them.

Next in the set of goodies under test is the DHu handheld transmitter, a microphone so solidly constructed that in some jurisdictions you may need a weapons licence to carry one. It comes with my favourite accessory, the blue anodised 'Transmitter Capsule Wrench'. This allows you to install compatible capsules from other manufacturers. Lectrosonics mention EV, Shure, Heil Sound, Earthworks and Telefunken in their specification, but I have only used the installed cardioid unit (imagine a condenser variant of an Shure SM58 and you'd be close). The positioning of the controls on this product is a work of brilliance. Unscrewing the sensibly coarse-threaded main body reveals the battery compartment and, on the back of this, six membrane buttons and two LEDs. On the outer body is a user-programmable button. This can be assigned to five functions (or disabled)

including an innovative 'Talkback mode' — of which more later.

## Receiver packed with features

Finally, to the feature-packed DSQD receiver, which is where things get very clever. The physical form is identical to the Duet IEM transmitter, so you'll need your best reading glasses if they are close to each other in a rack. In fact, this is four separate channels of diversity receivers in a half width rack unit. Not content with that, Lectrosonics give you three flavours of diversity reception to choose from, depending on the RF environment. The receiver is backwards-compatible with the entire Hybrid range, so you could spread the cost of moving to the world of ones and zeros. In addition, you can set receivers to receive either channel of a Duet IEM transmitter. Partner this unit up with Lectrosonics' own Wireless Designer software via USB, or Ethernet, and it really starts to come into its own. Comprehensive RF monitoring and frequency planning are available through the interface and the extensive audio options are much easier to adjust on a computer screen. I confess that the feature set on DSQD is a little like that on a clothes washing machine where you probably use one programme 99% of the time, but my favourite by a long way is the 'talkback' function. On both the handheld and bodypack transmitters there is a user programmable switch. Set this to 'talkback' and, when held, it will route the audio to a different receiver so the talent can talk to their crew.

Sound quality is superb — that is to say, it sounds like a cable connection. Range, as with other fully digital systems, seemed to me to be a bit less than the equivalent analogue units (but not massively so). Lectrosonics say that in their own tests comparing to analogue systems — with the same transmitter RF power — the DSQD has greater range. When at the end of its range DSQD cuts in and out in the 'all or nothing' way of this technology, which obviously plays a role in subjective range assessment.

I am sure that smaller transmitters, a portable receiver for electric handbag use and a plug-on transmitter will be in the pipeline at some point, but in the meantime this is a seriously well made high quality system and I would find it easy to 'square' the cost. 📌

## resolution/VERDICT

**PROS** Superb audio quality. Build quality. Insignificant latency. Flexible connectivity, with both analogue and Dante digital outputs. Extensive feature set.

**CONS** Bodypack transmitter size and weight. No portable receiver (yet).

[www.lectrosonics.com](http://www.lectrosonics.com)