

Dexela

A dynamic company that specializes in innovative technologies for **fast, low-dose x-ray imaging** recently joined Pleora's community of customers. We spoke with James Brodrick, Senior Electronic Engineer and Project Manager at Dexela Ltd, to learn more about what makes this UK-based company tick.



James Brodrick
Senior Electronic Engineer and
Project Manager, Dexela Ltd

Pleora: *Did your company's particular niche in low-dose x-ray technology already exist or did Dexela recognize it as a potential market and create the niche?*

Dexela: It's quite a complex story, but when the company started, we were producing software workstations for mammography. This involved a number of patents which were acquired by Dexela, one of which was for a technique for digital tomosynthesis. Since that time, we've moved from software to primarily producing the detector hardware.

Can you tell me what makes this detector technique different from a standard mammography?

Sure, yes. It's a 3D scanning process. So instead of getting a normal 2D projection of the breast, you get a 3D model which is far more valuable for diagnosing abnormalities.

So, with this kind of technology, who are your customers?

Our customers are all OEMs that produce x-ray systems for medical and industrial markets. The applications can range from medical CT systems to x-ray panels used for specimen inspection.

What brought Dexela to Pleora?

We needed an Ethernet capability for our detectors because our customers wanted it. The demand for Ethernet was definitely customer-driven from the start. We already had detectors that used the Camera Link standard, but the medical world is switching to Ethernet.

Why did your customers want the Ethernet, or GigE Vision standard, rather than Camera Link?

It's a more elegant solution: the flexible cables, longer cable runs and cheaper hardware. This is particularly important for smaller imager panels, which are used, for example, in dental x-ray installations.

Company Profile

Company: Dexela*

Technology: Fast, low-dose x-ray detectors

Established: 2005

Sector: Medical and industrial

Size: Under 50 employees

Customers: OEMs

Export markets: Europe, USA and Far East

Pleora product: Intellectual Property

Website: www.dexela.com

* Acquired by PerkinElmer on June 13, 2011

For a company like ours, the obvious solution was to buy Pleora's Intellectual Property. We don't have enough people to sit down and develop it, and even if we did, it would take a couple of years if we were to design it ourselves.

Why was there a particular demand for Ethernet in small-field x-ray detectors?



It is kind of mixture of reasons. For example, dental panoramic x-ray machines are often sold at very low margin to mass markets. In that situation, you want everything built with the minimum cost. With Camera Link, the unit cost of the cables alone is over \$100 each.

Whereas with Ethernet, the cable cost is, at most, \$10. Cost also factors in when it comes to the frame grabber card that is required with a Camera Link solution. These can range from \$300-\$500 dollar, and they're a persistent cost.

Size also plays into the decision because Camera Link cables are quite thick and not very flexible. The machine ends up looking like an industrial piece of equipment, which really isn't ideal for dental patients.

Why did you choose to work with Pleora instead of building your own Ethernet capability?

For a company like ours, the obvious solution was to buy Pleora's Intellectual Property. We don't have enough people to sit down and develop it, and even if we did, it would take a couple of years if we were to design it ourselves.

What do you think about 10 Gigabit Ethernet – do you foresee any customer demand?

10 GigE is still at the edge of the technology curve, but yes, we're starting to see the medical market move that way. And we intend to have a 10 GigE solution

ready as soon as the customer-side wants it. I could see things going that way in the next year to two years.

Where do you see the most opportunity for a 10 GigE bandwidth demand?

Well, one big technology replacement-curve taking place at the moment is with fluoroscopy systems used in surgery. The old analog versions of these are being replaced by digital versions, which are flat panels. And this is a major opportunity because in this situation, the speed or bandwidth requirement is going quite some way above what 1 GigE can offer. So, we are looking at 10 GigE as a solution for that.

Thank you for taking the time to speak with me. Before we finish, can you tell me what you consider to be the key factor in Dexela's success to date?

I'd say there are three main factors. The first is that we have a very rapid time-to market. While our competitors can take years to get a product out, we can get a product out the door in 6-9 months.

A second element would be that we design-in customer requirements. We like to concentrate in-house on the design so that our customers can get exactly what they want.

And thirdly, we have a very good awareness of our market – we're actively involved with our customers. We're always on the road visiting customers and prospective customers and we have excellent contact with medical equipment industry.

follow us on:



First Published: June 2011