

# The inside track

How design in distributors can deliver solutions to their customers. By **Felix Corbett**.

**D**esign in distributors, particularly those with a strong interconnect, power and electromechanical (IP&E) offering, are now providing services that component OEMs can no longer deliver cost effectively to low volume customers.

Component manufacturers are continuing to scale back their presence in locations such as the UK, relying on their distributors to maintain sales and achieve design wins. This trend could be perceived as a withdrawal of support for UK based customers there is a more positive effect.

The shift effectively allows dedicated design in distributors to provide a single point of access to OEM grade solutions across the entire bill of materials, using their contacts with

suppliers to deliver products and services that are not necessarily listed in catalogues. The distributor's role in delivering solutions that a product developer would not be able to find independently, and identifying customers that component OEMs would not otherwise be able to reach, has never been more relevant or powerful.

UK high tech businesses are thriving and breaking new ground in important areas such as renewable energy management, smart metering

and digital signage. Although these are exciting technologies, relatively low projected volumes, often reaching only tens of thousands per year at the most, typically prevent component OEMs from supporting such projects directly. The economic argument is a lot more attractive, however, for a design in distributor with an extensive line card including IP&E products, which makes it possible to support the complete bill of materials.

The emerging model for design in distribution calls for a much broader range of product design expertise than distributors have traditionally provided. In the past, technical distributors and OEMs have tended to target key elements in a design, leaving the remainder of the project to the customer. Today's customers need support covering virtually all the disciplines involved in

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### Sensing a benefit

A pioneering sensor systems specialist serving the renewable energy sector was seeking to completely redesign a first generation product as a modular solution.

The anticipated production volume of 10,000 units per year was very low for an OEM supplier, but since Avnet Abacus could support the complete bill of materials – including IP&E components such as USB connectors, RJ11 jacks, signal relays, resettable fuses and board to board connectors – it could negotiate with individual suppliers and help the company save considerable time and effort throughout the redesign project.

completing the design, not only aspects such as IP&E integration, but also areas such as documentation, applicable approvals and test engineering.

As OEMs continue to slim their presence in territories such as Western Europe, former employees are finding new roles within the emerging model. Their specialist technical skills are highly valuable to developers and marketers of end products, who have a greater need for the know how to design key functions, such as power supplies, analogue circuits or interconnect systems. Today's design in distribution model provides a platform by which that sort of expertise can be made available to customers on a cost effective basis. At the same time, distributors continue to provide an effective link between their customers and the resources available from component suppliers.

Avnet Abacus has more than 170 suppliers of components of all types, and often has advance knowledge of new products before they become generally available. This may appear of marginal benefit in the internet age, where OEMs can update their product catalogue overnight and publicise new products widely at the push of a button, but Avnet Abacus' close technical links with component OEMs have made it possible for customers to gain access to products and technologies that would not otherwise have been offered through distribution. Avnet Abacus and other design in distributors are consolidating the information that they hold from their broad portfolio of suppliers into web tools.

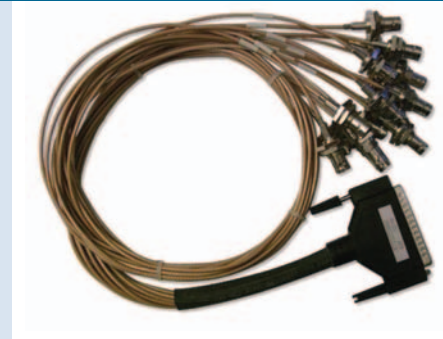
### Harnessing expertise

A producer of a complex digital display unit was seeking to simplify and speed installation by consolidating the large number of power and data cables into a fully integrated harness.

Connector specialists at Avnet Abacus engaged with suppliers and specialist contractors to develop a specification for the harness and to complete the design, meeting the customer's requirements in relation to aspects such as power ratings, data speeds and the audio/video quality of the end product. The team also handled the complete design and approval processes including arranging all necessary tooling.

Traditionally, an OEM would have expected to support this type of project. The harness is now in series production and the project has helped cement a valuable customer relationship for Avnet Abacus.

An interesting extra dimension to this



example is that the harnesses are manufactured in China, taking advantage of Avnet's global network, as well as local contacts in the region. This has enabled the customer to gain the cost advantages of manufacturing offshore without having to commit its own resources to setting up and managing relationships across cultures and time zones.

The traditional distribution messages no longer apply. Customers typically need technically superior solutions to deliver differentiated products. A good design in distributor can provide access to the most advanced components before they appear in the catalogue.

Avnet Abacus can link its customers to solutions they would not find on supplier websites, and the company can create markets that suppliers are no longer in a position to discover.

Modern design in distribution based on a

broad supplier base, including a rich IP&E portfolio, allows today's distributors to provide technical support and customer facilities that component OEMs can no longer provide economically in territories such as the UK and Western European countries. The key is being able to support the full bill of materials, realising savings for our customers by fulfilling the roles of several OEM suppliers at once.

#### Author profile:

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### Hold on to those memories

The smart metering market is moving quickly at the moment, with popular techniques including networking of meters over the GSM infrastructure and using memory cards to store and transport meter data. One Avnet Abacus customer, a designer of water meters, found that basic card holders, such as those designed for mobile phone applications, were not rugged enough to withstand the frequent removal and reinsertion of SIM or memory cards.

The distributor worked with its suppliers to identify card holders robust enough to survive the rigours of smart metering applications. These were components that the OEM would not have offered through typical catalogue or web channels; a prime example of how an IP&E design in distributor is able to link product developers and component suppliers who would otherwise be unlikely to do business together.