

The CEM at the centre

Companies are finding new ways to get production lines ready, reports **Chris Edwards**

The production environment is seeing a number of changes in the way companies do business with each other. Traditional business models are being replaced by new approaches that are designed to cut the time it takes to get production lines up and running.

The main focus of these changes lies squarely in the world of the contract electronics manufacturer (CEM). The rapid growth in the use of CEMs during the past few years, particularly in the US but now in the UK as well, has seen companies try to reposition themselves to take full advantage.

Siemens Electronics Assembly Systems (EAS) has decided to go beyond its own equipment in a bid to build entire production lines for customers. The company reckons that it can analyse and commission lines more quickly than OEMs and CEMs. The idea behind the Siplace Global Solutions programme is to give OEMs and CEMs a single source of entire lines of production equipment, whether they are made by Siemens or not.

As the programme has been set up, Siemens kit features high on the list, including the company's pick-and-place systems as well as screen printers and reflow ovens. The equipment is tied together using a software package developed by the company. It provides line optimisation and closed-loop process control.

Ray Bruce, general manager of Siemens EAS UK, said: "In today's market environment, electronics manufacturers no longer have the time or the resources to research and specify each piece of equipment needed for a new line, and then optimise that line for maximum first pass yield.

"Current market pressures for smaller, faster and cheaper products dictate a new way of doing business for both electronics manufacturers and equipment suppliers."

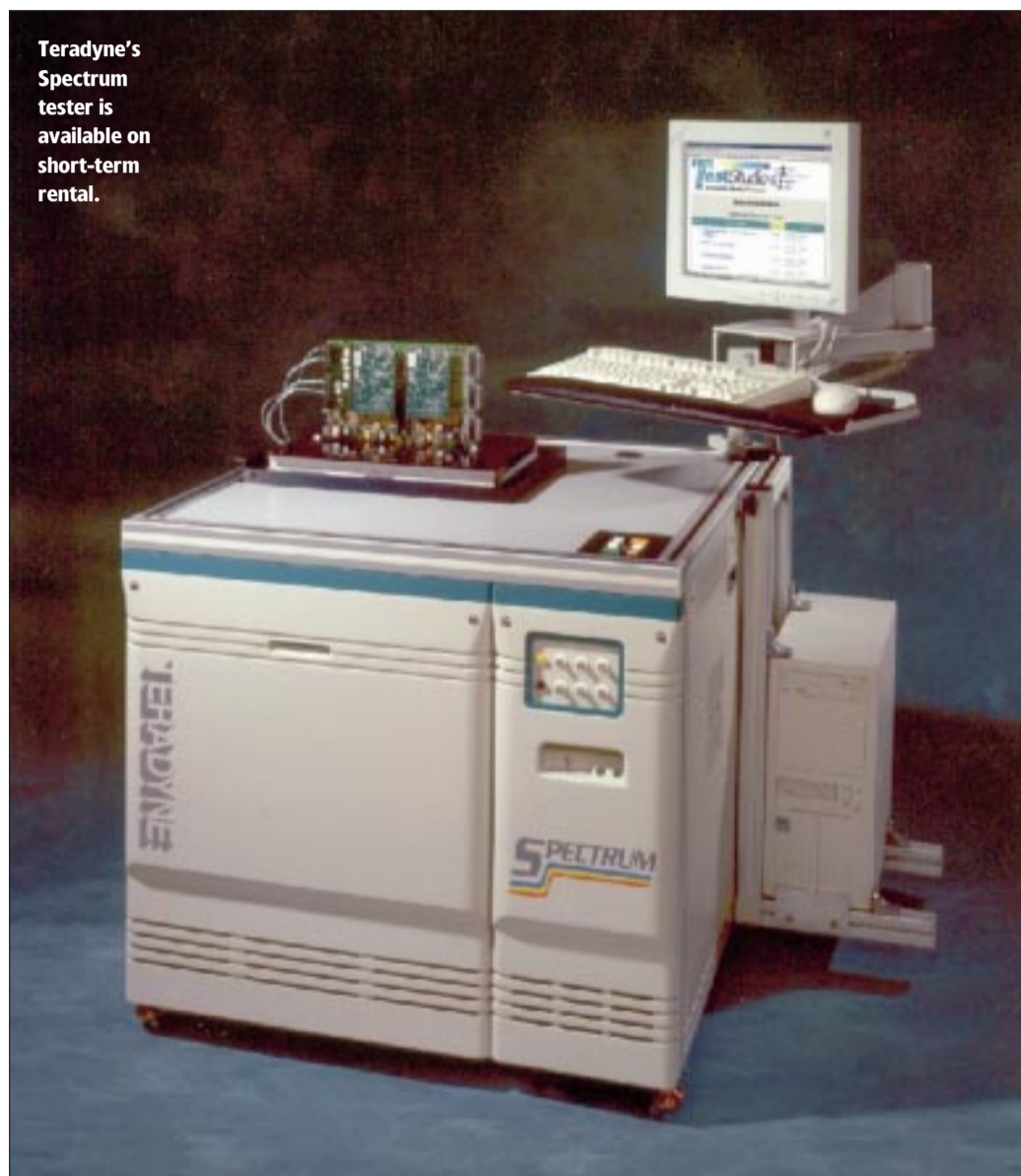
CEMs are often finding that they have to retool for high-volume projects that may arrive at short notice and with little long-term commitment.

Teradyne and test support specialist TSL have teamed up to offer CEMs in-circuit and functional board testers for short-term rental. The idea behind the move is to give CEMs the ability to work on high-volume production contracts by letting them get hold of testers quickly without having to buy them outright.

Charles Quinn, Northern Europe sales manager for Teradyne, said: "It is an initiative to address the needs of the [electronics manufacturing services] sector for short-term rental."

"Today, there are too many disparate systems that don't talk to each other. The process relies on phone, fax and e-mail"

"It is an initiative to address the needs of the [electronics manufacturing services] sector for short-term rental"



Teradyne's Spectrum tester is available on short-term rental.

Teradyne has picked two testers for the programme initially. The company will continue to own the testers, with TSL acting as the service company for CEMs. TSL already offers one of the Agilent Technologies testers on its own short-term rental programme.

The two Teradyne testers are the Spectrum 885X and the Z1800. "We are kicking off the programme with these two systems. We are looking at opening up the range once we see how it goes," said Quinn.

The push for the short-term rental programme comes from CEMs which may start working on contracts without a long-term commitment from OEM customers.

"Some CEMs get requests to do work where the contract is not long term. They can rent for a month, three months or six months, until they have a firm commitment," said Quinn. "Once the CEM sees that business translating into a long-term arrangement, they will want to purchase the system.

NOT LOSING MONEY

"Behind the rental agreement, there is a matrix where, if you convert within a certain timescale, there is a rental-to-purchase arrangement. The CEM is not throwing away any money."

Quinn said he sees customers falling into two groups: "One is where the customer has an understanding of what the testers can do. Others may have to select a new test platform. They can use this to try them. We will try to turn round orders within a week. We are keeping a stock of 1800s and Spectrums and we will backfill as we put those out in the marketplace."

Design-for-manufacturing tools company Valor is gradually building up a network of partners for its

E4enet.com operation. The Web-based company aims to link designers to their manufacturing operations, whether they are owned by the OEM or outsourced. The company has signed up Celestica and KAW as beta-test partners.

The idea behind E4enet is to make the process of passing engineering change orders (ECOs) from the design team to a variety of contract manufacturers a much more streamlined process than it is today.

Julian Coates, vice-president corporate marketing, says the company is focused on a different area than Internet-based component suppliers.

"The difference between e4enet and Partminer *et cetera* is that those companies are geared to logistical and procurement processes," said Coates. "The focus of e4enet is quite different. We are focusing on engineering collaboration rather than procurement.

"We may well collaborate with those other companies but, for the moment, they are totally absorbed in the logistical problems."

He says the main advantage that E4enet will bring is the ability for software to pull together information from a variety of product data management (PDM) systems. By doing that, the company will be able to streamline of getting a design ECO implemented by a CEM.

"Today, there are too many disparate systems that don't talk to each other," Coates said. "The process relies on phone, fax and e-mail. As a result, it relies on the initiative of the people involved."

The full E4enet service is expected to go live soon, rounding out a series of independent initiatives that are building a new infrastructure around the CEMs.