RoodMicrotec
powerful solutions

RoodMicrotec Newsletter 8

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RoodMicrotec receives award from major customer

ON Semiconductor, a leading supplier of standard components and ASICS enabling energy efficient solutions, has awarded RoodMicrotec a Supplier Appreciation plaque for its Q1 2010 performance.

'We are very pleased with this mark of recognition from our customer, in particular because it is one of the leading companies in the world and therefore well-placed to judge the quality of our service provision. For this company we process high-quality products from Asia that are distributed in Europe, mostly to the automotive sector.
This award confirms once more that we have first-rate software engineers, technicians and operators who always provide the best possible service, regardless of the customer.'

We always look for the most efficient total test solution

'In the Test Engineering business unit, we work with a number of different platforms, with both low-end and high-end machines from Teradyne, LTX-Credence and Verigy, such as Teradyne microFLEX, LTX-Credence D10, and Verigy 93000,' explains RoodMicrotec's Andreas Meiritz. 'We have a wide range of customers, mainly in the area of mixed-signal applications in the automotive, aeronautical and space, radio frequency, medical, consumer and industrial sectors.

While in the past we would mostly carry out testing for IDMs, in recent years, initially in particular in Stuttgart, we are increasingly carrying out test development and testing for fabless companies. This requires a different approach. For IDMs, we would either develop test solutions on-site or develop and test on our own equipment at one of our own sites. In both cases, the customer decides what test equipment we use. Fabless companies however in most cases don't have any preference, so we can select the most suitable and state-of-the-art platforms based on our experience.

In our choice for various platforms, we aim to keep the price of testing as low as possible. We look at the possibilities to reduce the total price and to increase parallel testing.
For example, one tester may be more suitable for testing small volumes than another, and thus cheaper. But we may also be required to do a multi-site test rather than a single-site test. To do this as efficiently as possible, we test the largest possible number of chips in parallel. That may mean that even though we opt for a more expensive test platform, we may still be able to make the customer a better (more competitive) offer. These are just some examples. Let me stress that we prefer to talk about a total test solution, because we look beyond the test process itself. A platform consists of a tester, hardware and software, and external instruments. In some cases it may make more sense from a price perspective to include external instruments instead of paying for licences to use the hardware sold separately with the tester. Teradyne testers, for example, have a RF (radio frequency) option. In one specific case we found that we can use more channels by buying external equipment at a lower price. This adds flexibility as well since the external equipment is scalable, that is to say, capacity can be extended simply by adding an instrument.'

Ionic contamination has many sources

Eckard Schöller has gained years of experience with printed circuit boards (PCB) qualification at Alcatel. Today he explains two methods used by RoodMicrotec in Stuttgart.

One method, ionic contamination testing, is used to measure the amount of ionic contamination present on PCBs, components and assemblies. The testing is required because remaining ionic residues may affect the reliability of the printed board assembly (PBA). There are many different sources of ionic contamination such as flux residue, etch residues, plating path residues, poor solder mask treatment, dust and moisture, to name just a few. We solve the ionic in a mixture of alcohol water and measure the resistance of the liquid. After calibration we find a value, which we compare to described standards. This gives us an indication of whether something is wrong with the components or process.

A second method we use is focused ion beam (FIB). FIB tools are designed to etch structures in a semiconductor surface for design modification. Here we use this method to prepare a cross section in order to measure directly a tin layer (less than 1 micrometer) on the PCB surface. Normally this is done indirectly through a calculation. Metallographic cross sectioning can not be used for thin tin layers. FIB is quite an expensive method, but we see opportunities in the near future.
It is certainly interesting enough to delve into more deeply in another newsletter.

Works Council vice-chairman Peter Klein is also very pleased with the award from ON Semiconductor as a mark of recognition from a major customer. 'After a difficult year in 2009, this award is very welcome news. It confirms that we are on the right track, and that employees continue to be highly dedicated in spite of the adverse circumstances of the recent past. It is in fact a mark of recognition of their work.'

Photo: celebration of the Award (Not all staff were present when the picture was taken.)

Agenda

Preliminary announcement:
October 21, 2010, 9 am to 5 pm
RoodMicrotec conference: Launching your products successfully, Nördlingen, Germany.
Next to the lectures, plant tours are offered. In addition, ATE equipment from 3 suppliers will be displayed in a showroom.
More details will follow at a later date.

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