New equipment brings RoodMicrotec to a higher level of service providing

In March we announced that we were mainly going to invest in the newest generation of test equipment in order to handle more complex high performance devices. The initial machines that have been ordered are an additional V93k mixed signal test system and a 12” wafer prober. These investments will enable us to generate further additional revenue and makes us a higher level service provider to fabless companies and OEMs. In this newsletter you will find more technological information as well as a description of the technical advantages.

Philip Nijenhuis, CEO.

RoodMicrotec invests in new equipment to serve the automotive, industrial and HiRel market and develops a compatible docking system

RoodMicrotec has expanded its installed tester base with the ADVANTEST V93000 Smart Scale and the related wafer prober equipment for 12” wafers. We have also developed a compatible docking system between a 12” wafer prober and two different test platforms. These investments and recent development makes us a much stronger and more advanced player in our market.

ADVANTEST V93000 Smart Scale

The V93000 is a flexibly scalable platform ATE, providing coverage of the ‘all digital’ space as well as offering solutions for accurately overcoming the unique mixed signal testing challenges of the latest consumer device SoCs, or e.g. enabling in the wireless/RF field highest test efficiency and minimum cost-of-test.

The ADVANTEST’s V93000 Smart Scale is a state-of-the-art, high-end, per pin scalable test system that meets the requirements of today’s industry for ever higher speeds, performance and pin counts, while maintaining low cost of test.

With all the main functionality tightly integrated in the water-cooled C-class test head, the platform covers a broad range of devices, from the lowest cost-of-test chips by utilising massive parallel test up to high-performance and complex SoCs by benefiting from outstanding system strength. RoodMicrotec’s versatile 512-pin configuration includes a full speed licensed PS1600 at 1.6GB/s and a DPS128 device power supply card comprising 64 high-voltage and 64 high-current channels.

Due to high resolution and precise clamps the DPS128 can serve also as a fully valued VI-Source.
Moreover the test system offers wide expandability, e.g. mixed-signal instrumentation ranging from 24bit high-precision up to 300MHz high-speed, multi-channel high power VI-Sources, RF Source/Measure. Its modular design makes it easy to extend the system with new modules and instrumentation, as test needs change.

Other outstanding features are its very small footprint and low power consumption, as well as the minimal effort that is needed for regular maintenance thanks to the use of a calibration robot, thus maximising the system’s uptime.

This advanced equipment and the related 12” wafer prober enable us to strengthen our market position in our focus markets (automotive, industrial and HiRel).

**12” wafer prober**

The state-of-the-art 8”/12” wafer prober has, in addition to the usual standard features like for example automatic Probe-to-Pad Alignment and Needle Alignment, a special ATT temperature chuck with a operational range of -60°C to +200°C at a stability of +/- 0.1°C and a precision +/- 0.5°C. The position precision of the UF3000EX-e is +/- 1.8µm and it reaches a probing force of up to 300Kgf. This enables us to contact very small pad sizes reliably, also at very high pin counts of the probe cards used.

All this has been achieved with a top load concept, so that even for wafer tests down to -60°C there are no ‘icing over’ issues. Should, despite all this flexibility, a move of the wafer prober be required, stress-free motion is ensured by means of a specifically designed air cushion platform, so recalibration can be avoided.

**Compatible docking system**

With help from our supplier Turbodynamics we have developed a docking concept allowing a complete setup change in less than two hours. With this concept we are able to operate two tester platforms with a single 12” wafer prober without having to move the prober. It requires nothing more than a simple swap of specifically constructed adapter plates.

By using customised dedicated tester manipulators we have managed to achieve this with a minimal footprint. Experience in wafer test issues gained over many years was taken into account when developing this solution.

We have realised a unique docking concept that allows for ‘real direct docking’, cable docking, pogo tower docking and docking with slots for EURO format PCBs. Thus, we are able to fulfil virtually all our customers’ wishes in full.

We are now the only testhouse for electronic components providing a flexible and highly compatible docking system between a 12” wafer prober and two different tester platforms.

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**Agenda 2016**

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<tr>
<th>Date</th>
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<tr>
<td>8-11 November</td>
<td>International Exhibition for Electronic</td>
<td>Munich</td>
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<td></td>
<td>Components, Systems and Applications</td>
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<td>22 November</td>
<td>RoodMicrotec/ Exact Seminar</td>
<td>Switzerland</td>
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RoodMicrotec seminar successful

On 14 April RoodMicrotec organised a highly successful seminar on legal issues and liability risks in the supply chain of electronic components and modules.

The seminar presented the basic legal aspects and risks involved in particular in the supply chain that need to be considered. Experienced experts and lawyers gave their views on the issues, illustrated by real life case studies.

We welcomed 63 participants, who gave very positive feedback.

The participants were asked to rate different aspects of the seminar on a 4-point scale; 1=poor, 4=very good. The results were:

- General 3.5
- Presentations 3.3
- Organisation 3.6
- Would recommend it to others 3.9

Some comments were: 'Excellent simulations breakdown' and 'well structured'.

Our next seminar will be held on 22 November 2016 in Switzerland. More information will be given in one of the next RoodMicrotec newsletters.