

- ▶ Engineering
- ▶ Test/Programming
- ▶ Supply Chain Service
- ▶ Qualification
- ▶ Failure analysis
- ▶ Consultancy



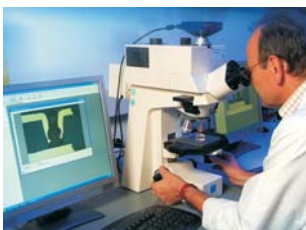
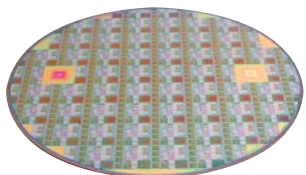
# RoodMicrotec

## AT A GLANCE

### Who we are



### Our strength – your benefit



**RoodMicrotec** is an independent and certified test lab with 40 years experience in quality assurance of electronic and optoelectronic products. **RoodMicrotec's** core competence consists of a comprehensive set of test solutions, with a focus on optoelectronics.

**RoodMicrotec** offers know-how from wafer level via packaged components and PBAs to complete electronic and optoelectronic systems.

Our services and expertise primarily support you in the following fields:

- **Test** – component test, test engineering and supply chain service for ASICs and Optic ASSPs
- **Programming** – for programmable logic, e.g. Flash, OTP's, Eproms,  $\mu$ Controller with flash, for a variety of packages
- **Supply Chain Service** from wafer to final product and worldwide shipment
- **Qualification** according to international standards or customer requirements
- **Failure Analysis** – functional, electrical and physical examinations
- **Technical consultancy** – independent expert reports and case studies; MTBF calculation, calculation of FIT rates, WEIBULL, component engineering

#### **RoodMicrotec: your partner for quality assurance and reliability**

Our service portfolio supports you during the complete process – from the product idea and production tests to analysis of field return failures.

#### **Our core competence is quality**

With a team of qualified employees **RoodMicrotec** is the expedient alternative and supplement to a costly set-up of your own test lab.

#### **Reduce warranty and goodwill costs**

Our longterm experience and continuous investment in latest technologies and equipment enables our customers to reduce warranty claims and goodwill costs.

#### **RoodMicrotec is leading in the fields:**

- Engineering
- Test/Programming
- Supply chain service
- Qualification
- Failure analysis
- Technical consultancy
- Optoelectronics

We analyze according to standards like JEDEC, MIL, ESCC, AEC-Q, TELCORDIA, DIN, IEC, MOST and customer specific requirements.

#### **One-stop reliability service**

We offer test, qualification and failure analysis from one source. Our team of experts support a comprehensive portfolio such as:

- Test program development and test time reduction
- Test of semiconductors, optoelectronic and fiber optic devices
- Supply Chain Service
- Device programming
- Qualification of components, PBAs, PCBs and complete systems
- Failure and technology analysis of components and systems at customer site or in our labs
- Reliability calculation and consultancy
- Transition support in development and production to lead-free processes
- Expert reports and market studies
- Component engineering

- ▶ Engineering
- ▶ Test/Programming
- ▶ Supply Chain Service
- ▶ Qualification
- ▶ Failure analysis
- ▶ Consultancy



# RoodMicrotec

## AT A GLANCE

### Reliable quality assurance



### Competence through experience

- DIN EN ISO/IEC 17025
- ISO TS 16949
- DIN EN ISO 9001
- DIN EN ISO 14001

### Longtime experience and know-how

For 40 years **RoodMicrotec** has been verifying competently and reliably for design houses, component manufacturers, EMS providers and OEMs.

Leading distributors as well as suppliers of Automatic Test Equipment (ATE) are also among our business partners.

### Acknowledged expertise

As an independent and certified laboratory we get consulted as a third party or to confirm existing test results. Our customers rely on the competence of **RoodMicrotec** to ensure quality and reliability of their products.

Therefore we hold references in technically challenging industries:

- automotive
- aerospace
- industrial
- computing
- communications
- medical

### Reliability by quality assurance

Quality is our key competence. Our services are based on professional measurements including process definition and documentation.

**RoodMicrotec** is an acknowledged service provider in the industry for quality assurance of electronics and optoelectronics.

We stand for certified and independent results in test, qualification and failure analysis and therefore provide reliable technical consulting.

### RoodMicrotec history

- 1969:** Foundation of German Signetics GmbH, test and assembly location, in Nördlingen
- 1974:** Takeover by Philips Semiconductors
- 1983:** Re-naming into SES Electronics GmbH offering independent test services for ICs
- 1991:** Merger with **Rood Testhouse International N.V.** in Zwolle (NL)
- 1996:** Change of legal structure into **Rood Technology Deutschland GmbH + Co**
- 2001:** Clean room installation for wafer probing and bare die handling
- 2008:** Merger with **microtec, testlab for opto+microelectronics in Stuttgart**

- established in 1982 nearby Stuttgart
- focus on supply chain service for ASICs and ASSPs
- focus on examinations on PBAs, PCBs, mounting technology
- focus on optoelectronics: LEDs, fiberoptics, laser diodes, image sensors

### Rely on our experience

**RoodMicrotec** performed a large number of successful national and international projects and plays an active role in various standardization committees.

Our mission is to provide our customers with one-stop quality service.

### Challenge us!

We look forward to your inquiry.

**RoodMicrotec Stuttgart GmbH**  
 Motorstraße 49  
 70499 Stuttgart/Germany  
 Tel: +49 711-86709-0  
 Fax: +49 711-86709-50  
 info@roodmicrotec.com • www.roodmicrotec.com

**RoodMicrotec Nördlingen GmbH + Co. KG**  
 Oettinger Straße 6  
 86720 Noerdlingen/Germany  
 Tel: +49 9081-804-0  
 Fax: +49 9081-804-208

