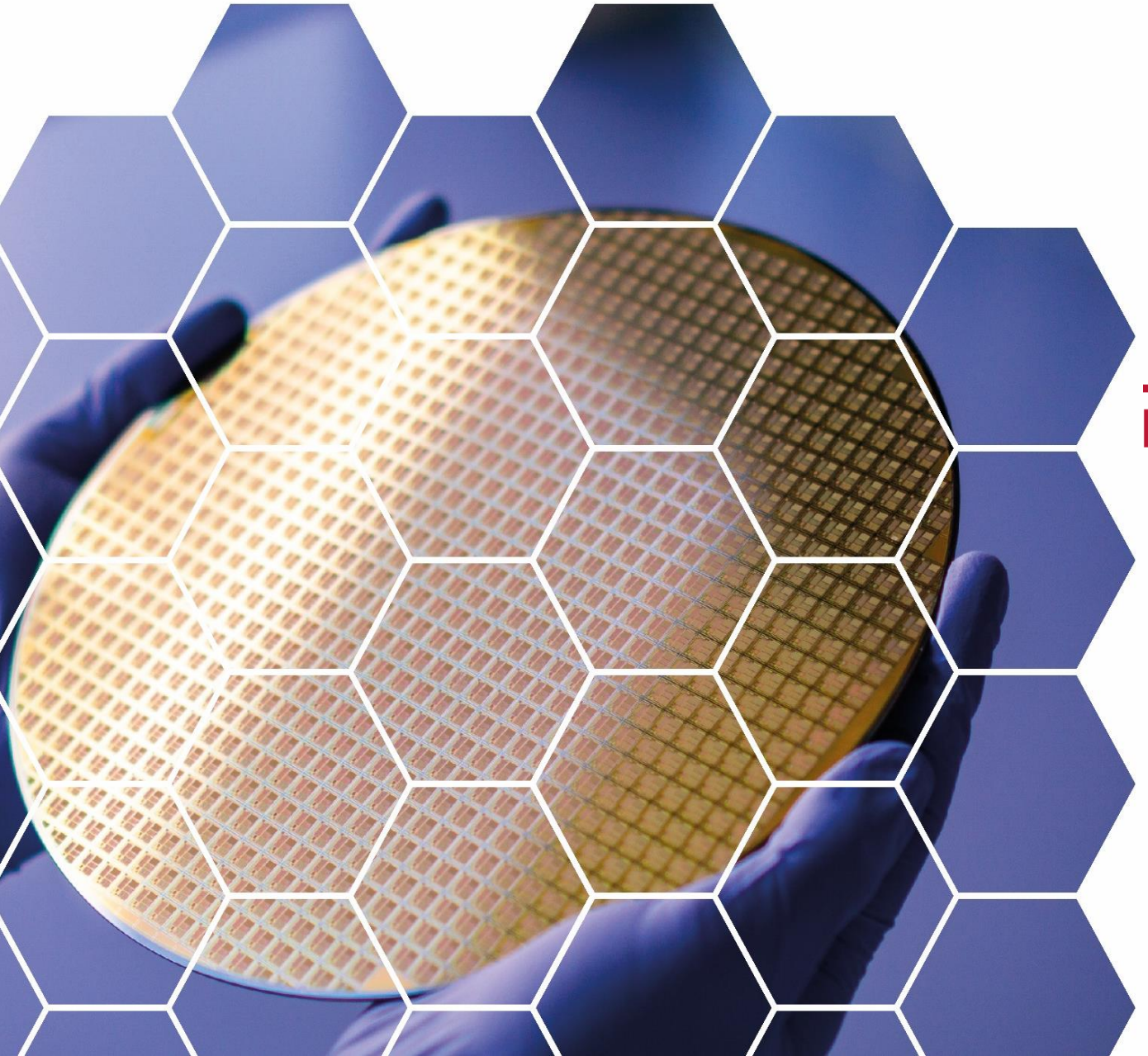


RoodMicrotec

Part of MICROTESTGROUP

Company Presentation

Content

About RoodMicrotec

Nördlingen, Germany

Stuttgart, Germany

*„Over **55 years** of Know-how in Semiconductor Industry“*

Sales Revenue

EUR 16.5 M (2022)

Headcount

FTE 105 (2022)

Sales

Direct:

- Germany
- UK

Reps.:

- Scandinavia
- Poland
- Switzerland
- Israel

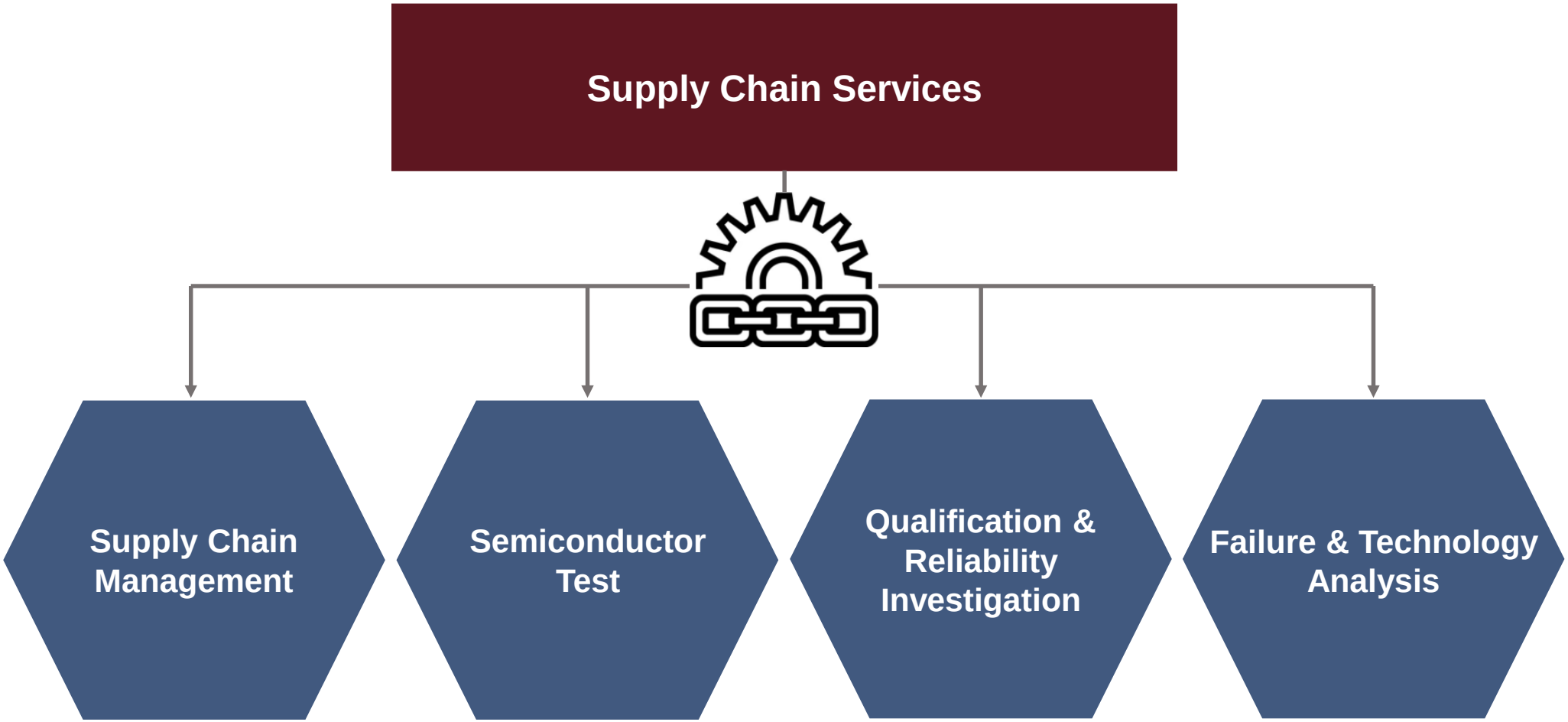
Markets

- Automotive
- Industrial
- Healthcare
- HiRel/Aerospace

Technologies

- Mixed Signal
- High Power
- RF
- Sensors

Overview Services



Individual to Full-Turnkey Service

Supply Chain Management

- Planning
- Sourcing
- Worldwide Shipment Logistics
- Long-Term Storage

Failure & Technology Analysis

- Anamnesis
- Independent Assessment
- Counterfeit Component Check
- Quality & RMA Support

Semiconductor Test

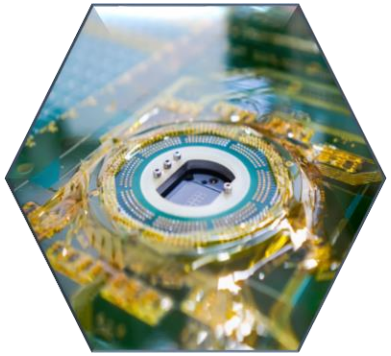
- Test Program Development
- Wafer Test & AOI
- Component Test
- End-of-Line

Qualification & Reliability Investigation

- Industry Qualification Flows
- Up-Screening Services
- Burn-In
- Lot Acceptance Test

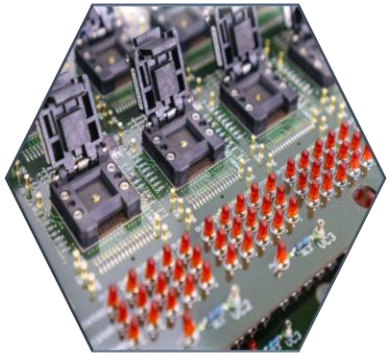
Semiconductor Test

Test Program Development



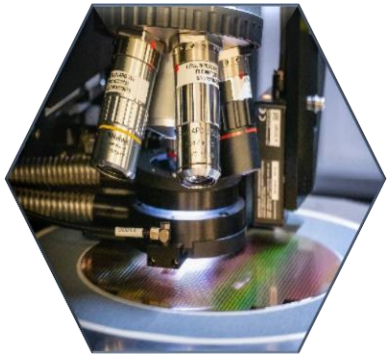
- Test Program Development
- Test Program Conversion
- Test Hardware Design
- Correlation & Characterization
- Test Data Evaluation

Component Test



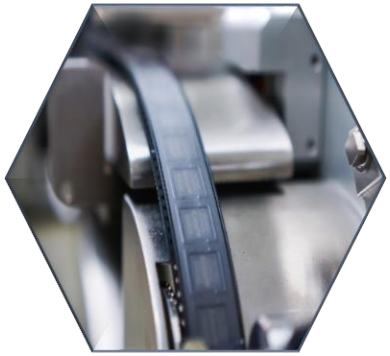
- IC Component Test
- From -40°C to +125°C
- RF & High Power, Image Sensor & PIC Test
- Device Programming

Wafer Test & AOI



- Wafer Test up to 12 inch from -55°C to +200°C
- Automatic Optical Inspection (AOI)
- Image Sensor Testing
- PIC Wafer Testing

End of Line



- Tape & Reel
- Scanning & Straightening
- Long-Term Storage

Qualification & Reliability Services

Environmental Stress Tests

- Temperature Cycling (TC) and Temperature Shock (TS)
- High Accelerated Stress Test (HAST)
- Temperature Humidity Biased (THB)
- High Temperature Reverse Bias (HTRB)
- High Temperature Gate Bias (HTGB)
- High Voltage/Humidity/Temperature Reverse Bias (HV-H3TRB)
- Power Cycling (PCT)

Mechanical Stress Tests

- Vibration
- Shock
- Constant Acceleration (CA)

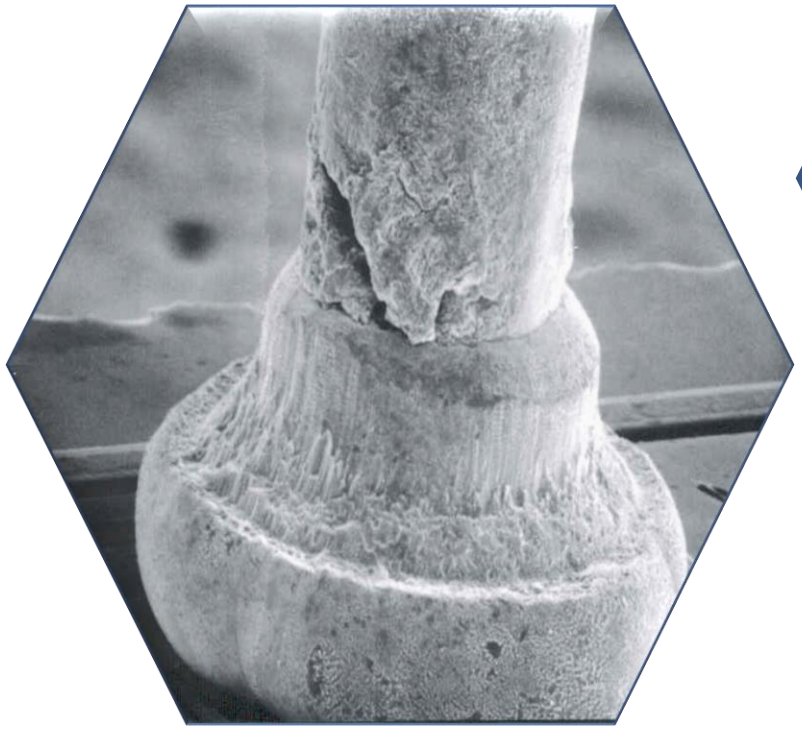
AEC-Q, MIL, Telcordia, JEDEC, ESCC

Lifetime/ Reliability

- Burn-In/Monitored Burn-In
- High/Low Temperature Operating Life (HTOL/LTOL)
- ESD Test
- Solderability Test
- CAF-Test

Failure Analysis

From Anamnesis to Recommendations



- Anamnesis: Verification of History
- Electrical Characterization
- Decapsulation
- Fault Localization
- Recommendation

RoodMicrotec analyses from integrated circuits to Printed Circuit Board Assembly (PCBA) and more!

Technology Analysis

Metallography

- Metallographic Cross Sectioning
- Optical Microscopy
- UV Microscopy
- SEM/EDX
- Microstructure Characterization
- Dye Penetration and Dye & Pry

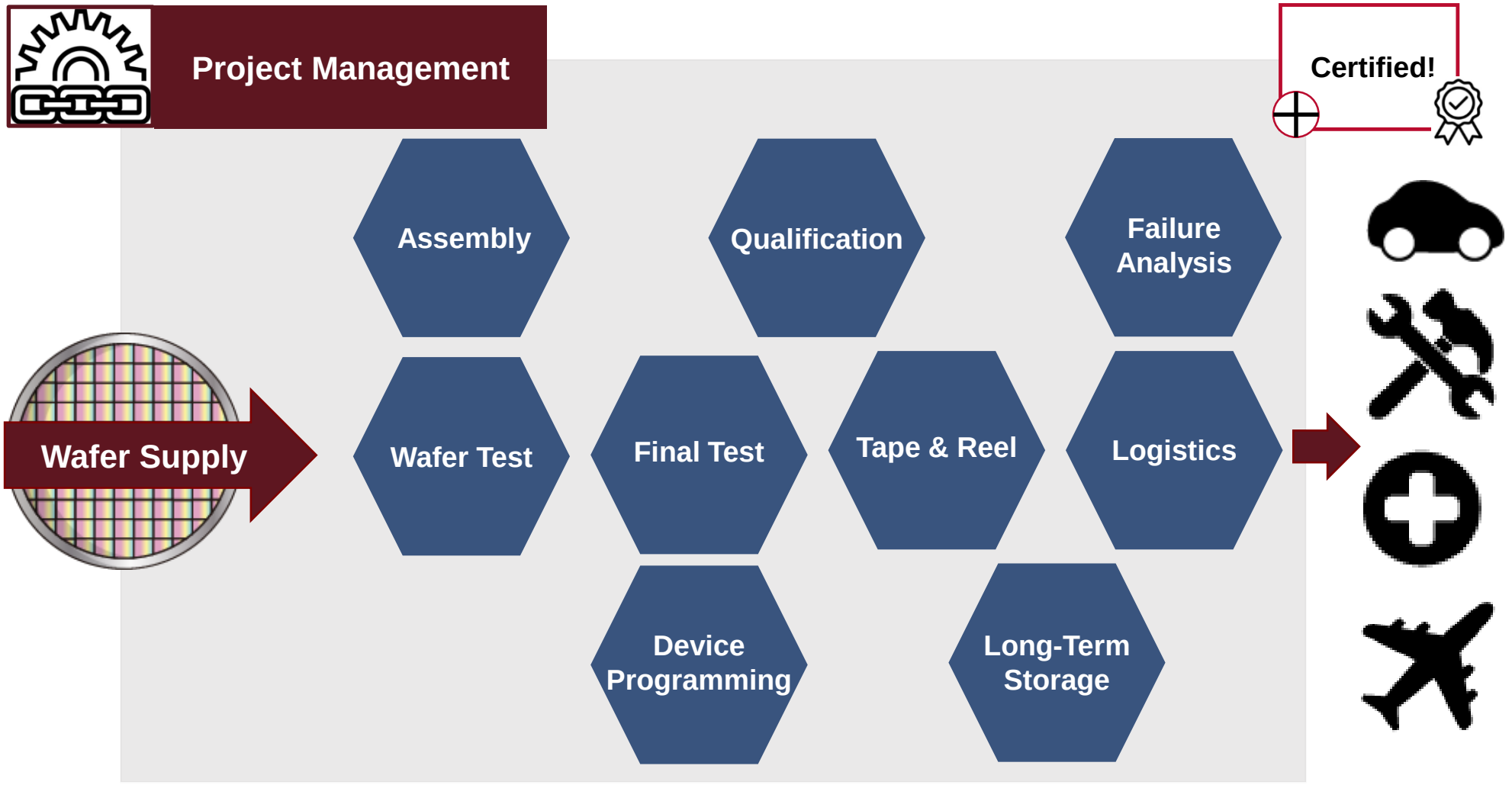
Destructive Physical Analysis (DPA)

- Visual Inspection External/Internal
- Seal Tests Fine/Gross Leak
- Solderability
- Decapsulation
- SAM
- Particle Impact Noise Detection (PIND)
- Bondpull Bondshear Dieshear Tests

Further Services

- X-Ray 2D & 3D
- Counterfeit Component Analysis
- ASIC Modification (FIB)
- Failure Localization (FTIR, EMMI, OBIRCH)
- Benchmark Analysis
- Whisker Inspection
- Measurement of Ionic Contamination

Supply Chain Management



Quality Commitment

DIN EN ISO / IEC 17025:2018

Quality management system and automotive requirements aligned to IATF 16949

DIN EN ISO 9001:2015
VDA 6, Part 2
3rd Edition 2017
- Services -
(with service design)

Quality management system and automotive requirements aligned to IATF 16949

The **test laboratories are accredited** according to **DIN EN ISO/IEC 17025:2018** by the accreditation body **DAkkS**. The accreditation is valid only for the scope listed in the annex of the accreditation certificate **D-PL-12120-01-00**.

DAkkS Deutsche Akkreditierungsstelle D-PL-12120-01-00