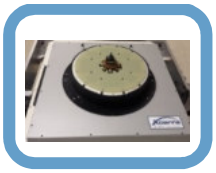
TEST CELL SOLUTION

76-81 GHz upgrade on scalable Cohu's X-series platform



Cohu's proprietary contacting solution: xWave

Cohu's tri-temp MT9510 pick & place handler with standard conversion kit

COMPLETE TEST CELL FOR AUTOMOTIVE RADAR ICS

"Out of the box" guaranteed 81 GHz performance at the DUT pin

Leveraging Leading Test Solutions to Address Today´s and Tomorrow's Challenges

- Improve productivity beyond the limits of conventional approaches
- Improve flexibility and agility to react to fluctuating and fast ramp-up demands
- Gain competitive advantage by focusing resources on new, disruptive technologies

Customer Benefits:

- Guaranteed signal integrity and performance at the DUT pin
- Guaranteed electrical and tri-temp thermal performance
- In-socket calibration to validate test cell performance

TEST CELL SOLUTION

1. Only Fully Integrated Solution in the Industry

1.1 At speed test of 76-81 GHz radar signals (transmit and receive)

1.2 All components from one supplier (test solution, test board, contactor and handling)

2. Guaranteed Signal Integrity

2.1 Impedance controlled signal path from DUT to instrument

2.2 Calibration up to the device pin

3. Proprietary, Unique Contacting Solution

3.1 Eliminates PCB interface for mmWave signals

3.2 Production ready hybrid pogo/cantilever design

4. Handler Supports Tri-Temp Testing for Automotive

4.1 Insulation technique maintains temperature within +/-2° C

4.2 Standard conversion kit compatible with hybrid contactor design

5. True volume Production Solution Offers Higher ROI

5.1 Flexible solution developed using standard & proven MX ATE, contacting, and handling instrumentation

5.2 Reconfigurable for a range of automotive applications

Signal Path Optimization

RF Instrument ↔ Test Board ↔ Contactor ↔ DUT

- **Design and simulation of the complete signal path**
- **Minimizes connection interfaces and maintains required 81 GHz signal quality and robustness for production**
- **Integrated interface design reduces signal transitions by factor of 3**
- **Measurements confirm simulation results: -10 dB return loss @ 81 GHz**

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