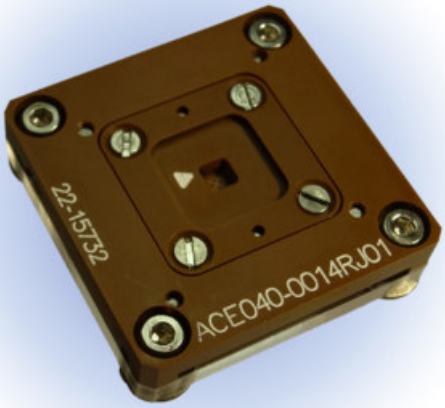
Cohu

ACE CONTACTOR



Cost Efficient RF Contactor for FBGA and Wafer-Level Packages

RF

High End Digital

Automotive / Power

Precision Analog / Sensors

Mobility

Benefits:

- Compatible with all device types, plating, and pitches
- Consistent electrical performance
- Long life and lower cost of test

Key Features:

- High frequency >40 GHz @ -1 dB
- Exceptional DC and RF performance
- Revolutionary barrel-less architecture
- HyperCore – homogeneous DUT side plunger material
- High-precision manufacturing process
- Large contact surface between top and bottom plungers
- Singulated devices and strip test
- BGA, LGA, QFN
- Pitches down to 0.40 mm

ACE CONTACTOR

1. Packages and Application

1.1 Packages
- BGA, LGA, QFN
- Singulated devices
- Pitch down to 0.4 mm

2. Environmental

2.1 Temperature Range
- -55 °C +155 °C

3. Reliability*

3.1 Typical Probe Life
- 500 k cycles

4. Electrical

4.1 Bandwidth @ -1 dB Insertion Loss
- 0.4 mm pitch: 40 GHz, GSG

4.2 Loop Inductance
- 0.4 mm pitch: 0.56 nH, GSG

4.3 Maximum Continuous Current
- 2.3 A

4.4 Maximum Peak Current
- 11.4 A

4.5 Typical Contact Resistance**
- 60 mΩ

4.6 Total Shunt Capacitance
- 0.06 pF, GSG

5. Mechanical

5.1 Compliance
- 200 µm DUT-side
- 310 µm total

5.2 Contact Length at Test Height
- 1.51 mm (R-tip: QFN)
- 1.71 mm (Y-tip: BGA)

5.3 Contact Spring Force at Test Height
- 0.18 N

5.4 DUT Tip Style
- Single for QFNs, dual for BGAs

5.5 PCB Tip Style
- 0.3 mm radius

6. Materials

6.1 Housing Material
- Vespel SP-1 (others available on request)

6.2 Contact Spring Material
- Stainless steel

6.3 Probe Material
- HyperCore
  600 Knoop hardness

6.4 Contact Spring Coating
- Hard gold - board-side only

7. Configurations / Interface Options

7.1 Automated Test
- Handler specific design/configuration
- Singulated package

7.2 Manual Test
- Manual actuators available

*Cleaning frequency and life specifications are estimates based on customer feedback. Actual values are dependent on the application (DUT materials, handler kit, maintenance, etc.)
**Typical resistance measured between Au plated sheets

Specifications are subject to change without notification and are for reference only. Use contactor drawing to design interface hardware.

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