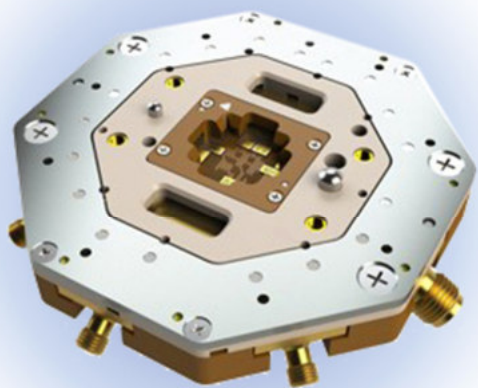


# xWave CONTACTOR AND PROBEHEAD



Broadband Production Solution for  
cmWave and mmWave up to 100 GHz



RF



High End Digital



Automotive / Power



Precision Analog /  
Sensors



Mobility

## Benefits:

- Lab and volume production test
- Backhaul cellular network applications
- WiGig and WirelessHD applications
- Automotive radar applications
- BGA, fBGA, LGA, QFN, WLCSP
- Pitches down to 0.3 mm (handler), 0.15 mm (prober)

## Key Features:

- Shortest impedance-matched RF path
- Minimized number of signal transitions
- Solder-down performance
- Proven in production > 1.5 M cycles on handler
- Integrated assembly available

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## 1. Packages and Application

- 1.1 Packages
  - BGA, fBGA, LGA, QFN, WLCSP
  - Pitches down to 0.3 mm (handler), 0.15 mm (prober)
- 1.2 Automated Test
  - Handler-specific design / configuration
  - Singulated packages
  - Test cell package available
- 1.3 Manual Test
  - High-resolution manual actuators available

## 2. Environmental

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

## 3. Reliability\*

- 3.1 Component Life
  - Leadframe: > 1.5M (handler), > 3M (prober)
- 3.2 Cleaning Cycle
  - MTBC ~50 k

## 4. Electrical

- 4.1 Insertion Loss
  - 4 – 6 dB @ 80 GHz\*\*
- 4.2 Return Loss
  - ≤ -10 dB @ 80 GHz
- 4.3 Contact Resistance\*\*\*
  - 80 mΩ
- 4.4 Maximum Continuous Current
  - Varies based on pitch

## 5. Mechanical

- 5.1 Compliance
  - Leadframe: ~200 μm
  - Spring probe: 380 μm (total)

## 6. Materials

- 6.1 Housing Material
  - Vespel SP-1
- 6.2 Leadframe Contact Material
  - Proprietary
- 6.3 Spring Probe Contact Material
  - Gold-plated steel
- 6.4 Contact Spring Material
  - Gold-plated stainless steel

\*Cleaning frequency and life specifications are estimates based on customer feedback. Actual values are dependent on the application (DUT materials, handler kit, maintenance, etc.)

\*\* Path includes leadframe and connector, which connects directly to test head instrumentation

\*\*\*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.

All performance figures such as MTBF, MTBA, Uptime, Yield, Jam Rate, Life Span, Cleaning Cycles etc. can vary with specific package type, test program and / or specific application environment. They assume that only original Cohu spare and consumable parts are used, recommended maintenance intervals and procedures are respected, operators/maintenance technicians have successfully participated in formal equipment training by Cohu to the appropriate level, and only Cohu approved software is used on the systems. Cohu assumes no warranty or liability if any of these requirements is not met. All listed data are for information only. For binding specification please contact your sales person.

