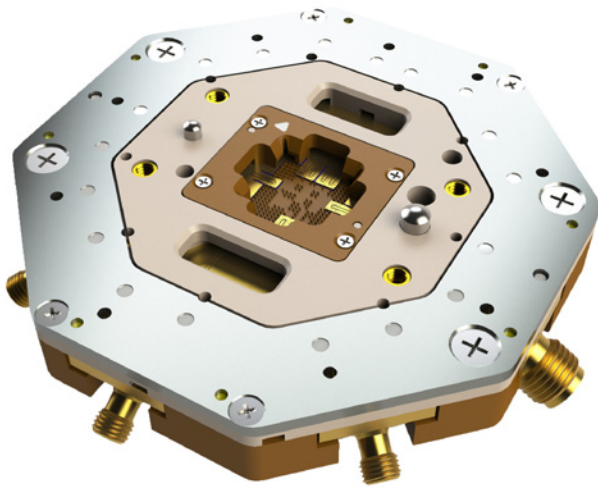


# xWave Contactor / Probe Head

Broadband Production Solution for cmWave and mmWave up to 100 GHz



Automotive / Power



Mobility



Precision Analog / Sensors



High End Digital



RF

## Benefits

- Lab and volume production test
- Backhaul cellular network applications
- WiGig and Wireless HD 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

- Temperature range  $-55^{\circ}\text{C}$  to  $+155^{\circ}\text{C}$
- New paradigm eliminates board and pogo pins from RF path
- Includes USB drive with s-parameter calibration files
- Shortest possible path from DUT to tester, coplanar waveguide files

# xWave Contactor / Probe Head

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## Specifications

### Packages and Applications

- BGA, FBGA, LGA, QFN, WLCSP
- Contactor: pitches down to 0.3 mm
- Probe head: pitches down to 0.25 mm

### Manual Test

- High-resolution manual actuators available

### Environmental

Temperature range: -55°C to +155°C

### Reliability\*

#### Component Life

- Handler leadframe: > 1,500,000
- Prober leadframe: > 3,000,000

#### Cleaning Cycle

- MTBC: 50,000

### Electrical

#### Insertion Loss\*\*

- 4 – 6 dB @ 80 GHz

#### Return Loss

- $\leq -10$  dB @ 80 GHz

#### Contact Resistance\*\*\*

- 80 m $\Omega$

#### Maximum Continuous Current

- Varies based on pitch

### Mechanical

#### Compliance

- Leadframe: 200  $\mu$ m
- Spring probe: 200 - 650  $\mu$ m (total – design dependent)

### Materials

#### Housing Material

- Vespel® SP-1

#### Leadframe Contact Material

- Proprietary

#### Spring Probe Material

- Probe choice dependent

#### Spring Material

- Gold-plated stainless steel

### Configurations / Interface Options

#### Automated Test

- Handler-specific design / configuration
- Probeheads for wafer-level test
- Test cell package available
- High-resolution manual actuators available

\* 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

All specifications are subject to change without notification and are for reference only. Use contactor drawing to design interface hardware. For detailed performance specifications, please contact Cohu.