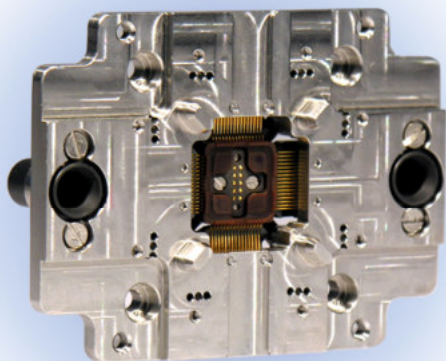


# nanoKelvin CONTACTOR



Kelvin Contactor for High Power  
Plunge-to-Board Applications



RF



High End Digital



**Automotive / Power**



**Precision Analog /  
Sensors**



Mobility

## Benefits:

- Boosted first pass yield
- Enhanced production reliability
- Testing at full specification values
- Improved Overall Equipment Efficiency (OEE)
- Extended maintenance intervals
- Reduced cost of test

## Key Features:

- Full Kelvin combined with high power capability
- Small imprint area
- Simple and cost-efficient test boards
- Contact motion decoupled from the test board
- Proven self-cleaning wipe
- Durable one piece design
- Low and stable contact resistance
- High current carrying capability
- Extended temperature range

# nanoKelvin CONTACTOR

## 1. Packages and Applications

### 1.1 Packages

- Leaded and leadless
- SO, QFN, QFP, SOT
- Pb-free packages
- Minimum lead pitch 0.4 mm

### 1.2 Test Handlers

- All handler types
- All established handler brands

## 2. Environmental

### 2.1 Temperature Range

- -60 °C to +175 °C

## 3. Reliability

### 3.1 Contact Spring Lifespan<sup>1</sup>

- 1 Mio. + insertions

## 4. Electrical

### 4.1 Bandwidth

- 1.5 GHz @ -1 dB (dual, GSG 0.4 mm pitch)
- 5.2 GHz @ -1 dB (dual, GSG 0.5 mm pitch)

### 4.2 Loop Inductance

- 2.5 nH (dual, GSG 0.4 mm pitch)
- 3.4 nH (dual, GSG 0.5 mm pitch)

### 4.3 Typical Contact Resistance<sup>2</sup>

- Hard gold coating: 40 mΩ
- Dura: 100 mΩ
- Forta: 40 mΩ

### 4.4 Current

- Maximum peak current: 20 A @ 1 % duty cycle<sup>3</sup>
- Maximum continuous current: 2 A

### 4.5 Voltage

- Break down voltage (pin to pin):
- 1000 V (pitch 1.27 mm)

## 5. Mechanical

### 5.1 Contact Spring Type

- Cantilever / single piece

### 5.2 Contact Spring Force

- 0.42 N/pin

### 5.3 Standard Test Height

- 3.4 mm

## 6. Packages and Applications

### 6.1 Contact Spring Material<sup>4</sup>

- CuBe

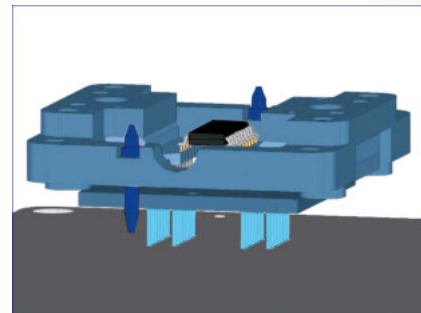
### 6.2 Contact Spring Coating<sup>4</sup>

- Hard gold coating
- Dura
- Forta

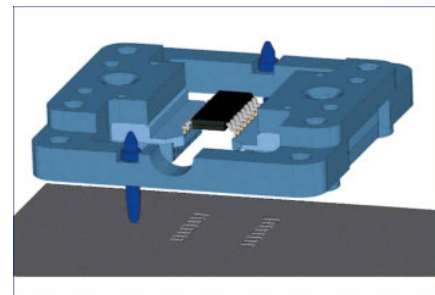
## 7. Configurations / Interface Options

### 7.1 Through hole

- Thermal insulation available
- Compatible to established burn-in sockets



### 7.2 Plunge to Board



## 8. Technical Standards

### 8.1 Compliant to

- ISO 9001 : 2000

<sup>1</sup> Electrical resistance increase due to contamination not covered

<sup>2</sup> Typical resistance measured between Au plated sheets

<sup>3</sup> Based on 1 sec cycle time and 20 °C temp. rise

<sup>4</sup> Other base materials and coatings on request

### Cantilever Technology

The Cohu Cantilever products stand for highest performance at best Cost of Test. They ensure highest contact yield by highly precise contacting and a unique self-cleaning of the contact. The spring geometry offers a specific wipe which allows penetrating oxide and debris.

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.

