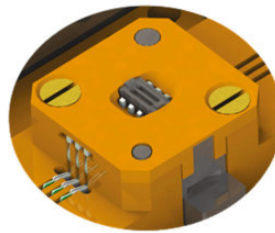
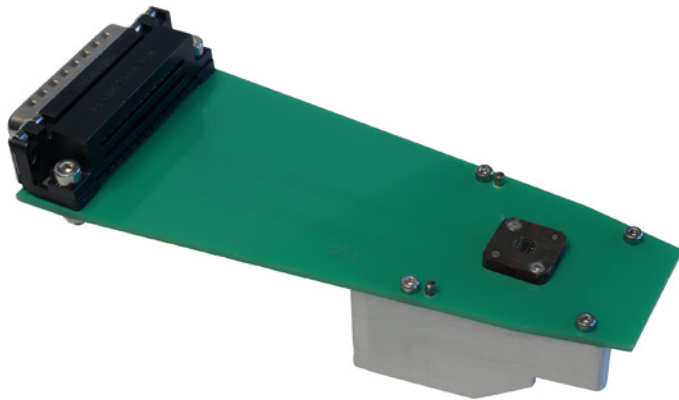


# cHybrid Turret Contactor

For Leaded and Leadless Devices Down to 0.3 mm x 0.6 mm



Automotive / Power



Mobility



Precision Analog / Sensors



High End Digital



RF

## High Productivity

- New Denmark pin material
  - Prevents solder migration
  - Long cleaning intervals - 50,000 cycles for pure pin
  - Lifetime more than 1 million cycles
- No load board wear
- Fast application board exchange without socket adjustment
- Single pin replacement drives cost of test significantly down
- Short index time due to innovative socket and system integration

## Key Features

- Kelvin / non-Kelvin configuration available
- Side-by-side for very small pad sizes
- Smallest device size 0.3 mm x 0.6 mm
- Insertion loss 5 GHz @ -1 dB (S21)
- For QFN, DFN, SO, SOT devices
- Compact multibeam pin structure for high density system integration on Turret Handlers

- Multibeam contact spring architecture
- Contact resistance 40 MΩ

- High current carrying capability
- Life cycle up to 3M touchdowns (on iAuPd)

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## Specifications

### Socket Type

- Kelvin and non-Kelvin configuration
- Single pin replacement

### Interface

- Upside-down PTB

### Packages and Applications

- Device Types
  - QFN/DFN 0.3 mm x 0.6 mm to 10x10
  - SOT, SC70, MSOP, TSSOP, SOIC
- Lead Pad Dimensions
  - Down to 0.25 mm (width) x 0.16 mm (length)

### Pitch

- Down to 0.50 mm

### Signal Path

- ~12 mm

### Stroke Device Side

- 0.20 mm

### Force per Contact Spring on Device Side

- 0.20 N

### Lifetime (typical)

- More than 1 million cycles

### Continuous Current

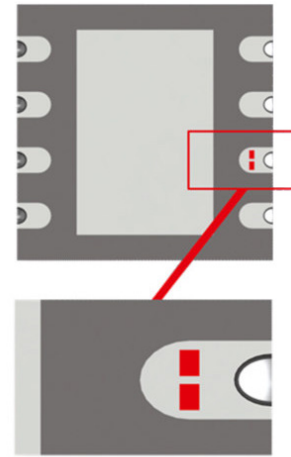
- Up to 4 A (ISMI method)

### 1.11 Typical Contact Resistance per Pin\*

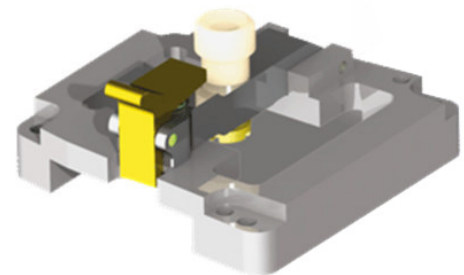
- 0.07 Ohm

### Electrical

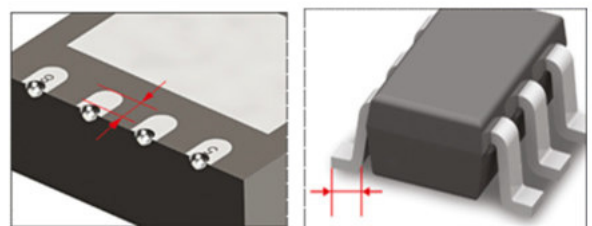
- Bandwidth
  - Insertion loss 5 GHz @ -1 dB (S<sub>21</sub>)
  - Return loss 2.5 GHz @ -20 dB (S<sub>11</sub>)
- Inductance
  - 3.1 nH
- Capacitance
  - 4.5 pF



Side-by-side Kelvin concept



cHybrid Manual Actuator



\*Actual individual results may vary based on a wide range of variables including: handler/contactor/load board interface, handler plunge depth and velocity, device presentation, alignment plate condition, package plating characteristics, test floor conditions, maintenance activities, mounting/fastening techniques, non-coplanarity from site to site, non-coplanar docking and extreme temperatures.

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.