

Hercules™

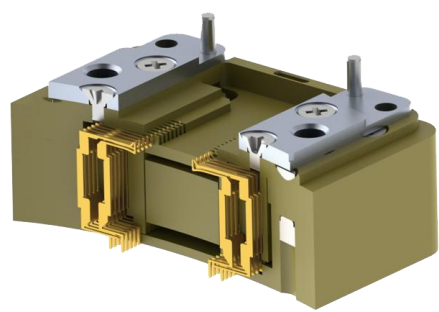
Test Contacting Solution

For Tri-Temperature Kelvin and Non-Kelvin Testing

Hercules Test Contacting Solution is a cantilever pin which designed to match profile and height of Multitest Design (EcoAmp). Hercules Technology able to remains robust in the most challenging environmental conditions and is an ideal solution for Short Pads such as Chamfered Corner and Wettable Flank/Dimple Pad.

Hercules Test Contacting Solution is available in Kelvin and Non-Kelvin configurations and is compatible with most spring probe platforms due to Hercules' straight-thru contact technology for XXX packages.

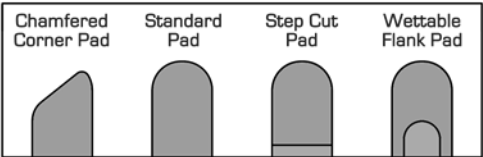
| Key Features | Hercules Technology Delivers |
|--|--|
| SWS (Short Wiping Stroke) Technology | Ideal for Short Pads, Chamfered Corner Pads and Wettable Flank and Step Cut Styles. Less debris generation |
| TCC (Thermal Conditional Channel) Technology | Maintains thermal set point of device during test process |
| Temperature testing of – 60°C to +180°C | Reliable temp test with single piece pin construction |
| Loadboard Friendly | No mechanical movement or wearing on loadboard pad |



Top View

Package Styles : **SOC, SOIC, TO, SOP, QFP, QFN, TSOP, LGA, DR-QFN**
Pitch: **≥ 0.4mm**

Designed for



Hercules™ Test Contacting Solution

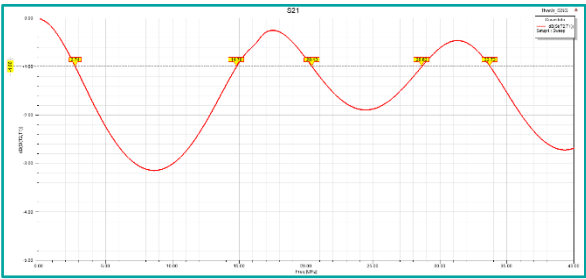
<http://www.jf-technology.com>

| Electrical Specifications ^① | Hercules |
|--|-----------------------------|
| Self Inductance (nH) | 14.38 (Kelvin) * |
| Mutual Inductance (nH) | 10.82 (Kelvin) * |
| Ground Capacitance (pF) | 3.66 (Kelvin) * |
| Mutual Capacitance (pF) | 3.40 (Kelvin) * |
| S21 (Insertion Loss / Bandwidth) | - 1dB @ 0.64GHz * |
| S11 (Return Loss / Bandwidth) | - 20dB @ 0.15GHz * |
| S41 (Crosstalk / Bandwidth) | -TBD |
| Contact DC Resistance (mΩ) | ≤ 35 * |
| Current Carrying Capacity (A) Duty Cycle 100% (300ms) | 3.5 (Inner) / 4.7 (Outer) * |
| Current Leakage (pA) @ 10V | ≤ 1 * |

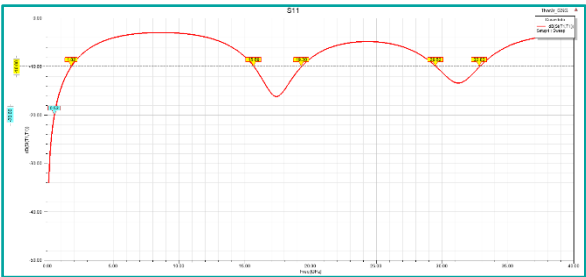
① Based on Hercules Contact with XXX mm pitch

| Mechanical Specifications | Hercules |
|--|-----------------------------|
| Contact Uncompressed (mm) | 15.52 |
| Contact Compliance (mm) | 0.2 |
| Contact Tip Coplanarity (mm) | ± 0.05 |
| Contact Wiping Length (mm) | ~ 0.15/kelvin ~ 0.07/pin |
| Gram Force per Contact (g) | 30 ~ 50 |
| Number of Insertions – Housing | N/A |
| Number of Insertions – Contact (Matte Tin) | 300K ~ 500K |
| Number of Insertions – Contact (NiPd) | |
| Operating Temperature (°C) | - 60 to +180 |
| Socket Material | Torlon® 5030 or equivalent |
| Contact Pin Material | BeCu-Ni-Au |

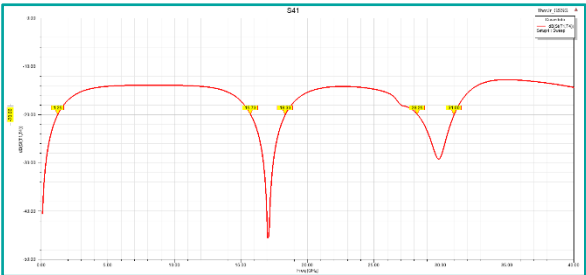
Hercules Performance



S₂₁ Insertion Loss^②

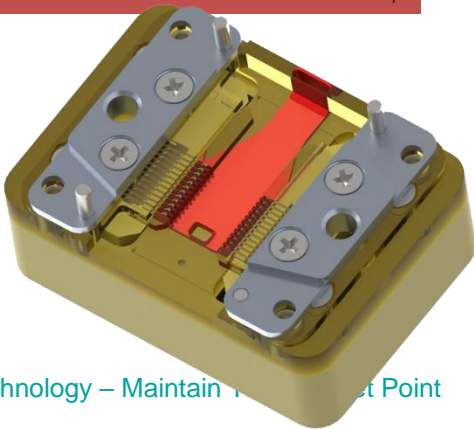


S₁₁ Return Loss^②



S₄₁ Crosstalk^②

② Simulated Results based on Hercules Contact with XXXmm pitch



CCC Chart @ 0.2mm thickness of pin

TCC Technology – Maintain Contact Point

Note * : The stated specifications are based on JF Microtechnology's Laboratory Test; the results may vary subjected to the test environment conditions. Information furnished by JF Microtechnology is believed to be accurate and reliable. However, no responsibility is assumed by JF Microtechnology for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of JF Microtechnology. Trademarks and registered trademarks are the property of their respective owners.