THOR™

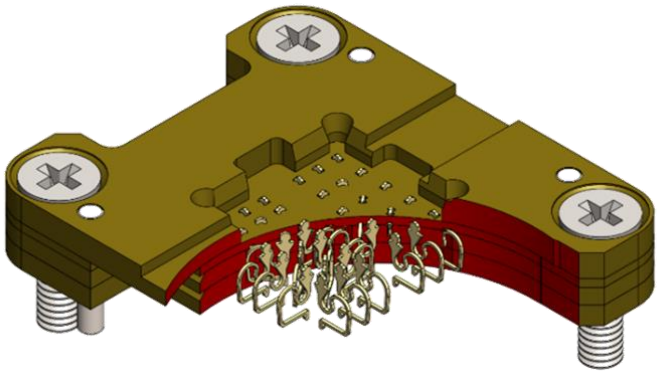
TEST CONTACTING SOLUTION (PATENT NO. US 10,466,300)

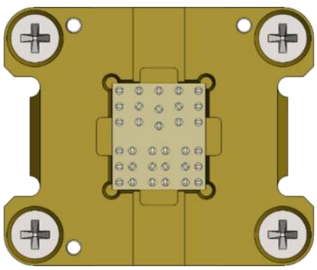
FOR TRI-TEMPERATURE NON-KELVIN & KELVIN TESTING

Thor Family of Test Contacting Solutions is designed and validated through high-volume production test environments. This contacting technology is a proprietary, flexing style, vertical actuation contacting solution with a horizontal micro-wipe on the device lead and our optional TCC (Thermal Conditioning Channel) Technology. It is able to meet electrical and mechanical test requirements.

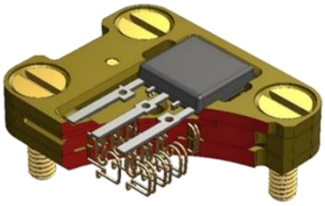
Thor contacting technology provides simple installation, minimizes debris, prolongs need for cleaning, and minimize the maintenance time and cost.

Key Features	Thor Technology Delivers
Vertical Actuation	Micro-wipe on the device lead through utilization of our uSWS (Ultra Short Wiping Stroke) Technology
Robust Contact Tip	Provides excellent contact to device lead with significant surface-to-surface contact for good current carrying capacity
Ease of Assembly	Effectively shortens maintenance and downtime
Pretension Contact Design	Ensures excellent co-planarity of contact tips
TCC (Thermal Conditioning Channel) Technology	Excellent thermal stability
Thor, Thor Jr, Thor HD	Various test pin configuration for variety of test applications





Top View



Targeted Applications : **High-power IGBT, Power Transistor, Power Diode, MOSFET**

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

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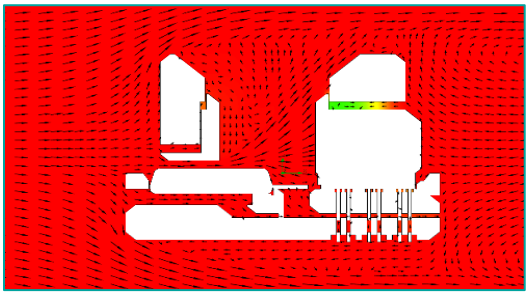
http://www.jf-technology.com

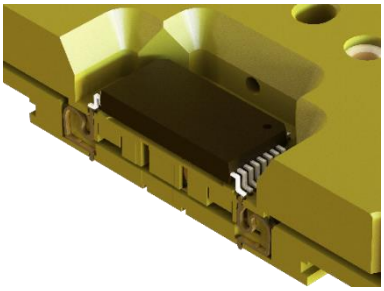
Electrical Specifications①	Thor		Thor Jr.		Thor HD
	Non-Kelvin	Kelvin	Non-Kelvin	Kelvin	
Self Inductance (nH)	6.38 *	4.41 *	4.41 *	4.29 * (Inner) 4.57 * (Outer)	14.22*
Mutual Inductance (nH)	3.91 *	1.71 *	1.71 *	1.42 * (Inner) 1.73 * (Outer)	9.56*
Ground Capacitance (pF)	0.628 *	0.201 *	0.201 *	0.119 * (Inner) 0.126 * (Outer)	1.62
Mutual Capacitance (pF)	0.526 *	0.138 *	0.138 *	0.12 ~ 0.15 * (Inner) 0.12 ~ 0.15 * (Outer)	1.40
S21 (Insertion Loss / Bandwidth)	N/A	N/A	- 1dB @ 2.74GHz *	N/A	-1dB @4.6GHz*
S11 (Return Loss / Bandwidth)	N/A	N/A	- 20dB @ 0.53GHz *	N/A	- 20dB @ 2.67GHz*
S41 (Crosstalk / Bandwidth)	N/A	N/A	- 20dB @ 1.25GHz *	N/A	N/A
Contact DC Resistance (mΩ)	≤ 30 *	≤ 30 *	≤ 30 *	≤ 30 *	≤ 25
Current Carrying Capacity (A) *Duty Cycle 100%*	3.5 *	3.3 * (Inner) 3.6 * (Outer)	3.5 *	1.5 ~ 1.8 * (Inner) 1.9 ~ 2.2 * (Outer)	7
Current Leakage (pA) @ 10V	-	≤ 1 *	≤ 1 *	≤ 1 *	-

Mechanical Specifications	Thor		Thor Jr.		Thor HD
	Non-Kelvin	Kelvin	Non-Kelvin	Kelvin	
Contact Uncompressed (mm)	5.7	6.0	3.4	3.4	13.2
Contact Compliance (mm)	0.4	0.2	0.2	0.2	0.8
Contact Tip Coplanarity (mm)	± 0.05				
Contact Wiping Length (mm)	< 0.1 per pin	N/A	< 0.05 per pin	N/A	< 0.05 per pin
Gram Force per Contact (g)	40 ~ 60	50 ~ 70	30 ~ 40	35 ~ 45	500 ~ 600
Number of Insertions – Housing	2M				6M
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				

TCC Technology – Excellent thermal stability



Thor Jr Socket Assembly



① Based on Thor Jr Contactor with 0.15 thickness, 0.5mm pitching

Sales & Service Representatives

Rev20240227

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