

# GAMMA™

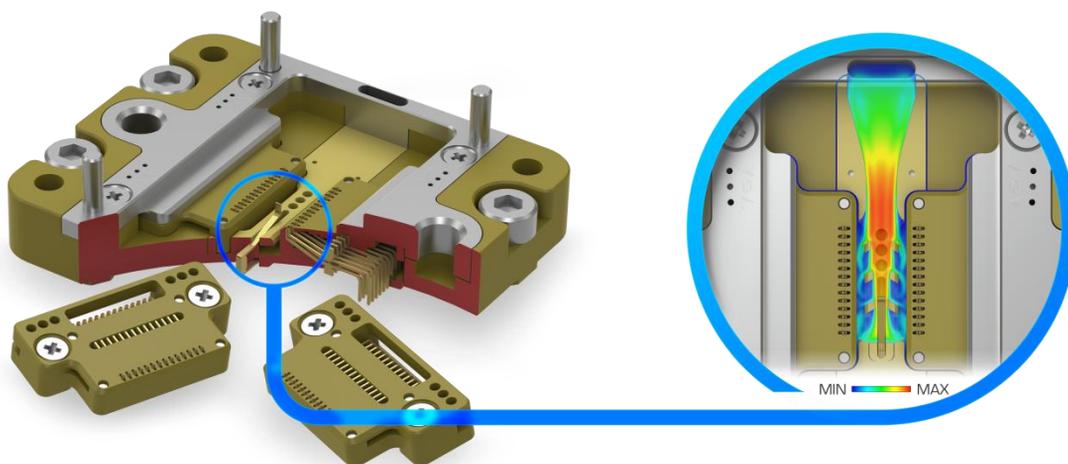
## FOR PRECISION TEMPERATURE TESTING

### TEST CONTACTING SOLUTION (PATENT PENDING)

The industry's leading precision thermal contacting solution for Mixed-Signal & automotive ICs from mid to high power test applications with precise Kelvin contactor for Leaded & Leadless devices.

Gamma featuring a customize cantilever contact pin & proprietary housing design with compression-mount contactor; delivers high performance in electrical & mechanical specifications from the laboratory to final test floor.

Do You Need	Gamma Offers
Self cleaning	Scrubbing of $\approx 0.15\text{mm}$ (Kelvin)
Tri-temperature testing ( $-60^{\circ}\text{C}$ to $+180^{\circ}\text{C}$ ) with $\pm 2^{\circ}\text{C}$ thermal control	Reliable temperature test with single piece pin construction & proprietary housing design
Longer lifespan test solution	$\geq 500\text{K}$ insertions (pin - on Matte Tin) $\geq 300\text{K}$ insertions (pin - on NiPd) $\geq 6\text{M}$ insertions (housing)
Sustainable 1 <sup>st</sup> pass yield (FPY)	Longer MTBA, MTBR & MTBF
Loadboard friendly	No mechanical movement & wearing on loadboard
Lower cost of test (CoT)	Higher OEE
Replaceable components	Modular design for ease of maintenance



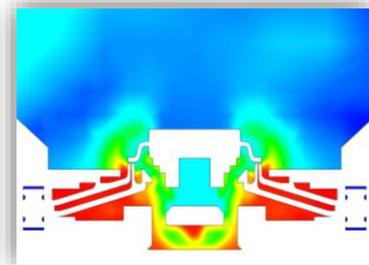
Package range : DFN, QFN, SOP, SOIC, MSOP, TQFP, QFP, etc.

# GAMMA™ TEST CONTACTING SOLUTION

## Design Features

- ✓ ± 2°C thermal control
- ✓ 4 Amp CCC
- ✓ Module assembly
- ✓ Tri-Temperature testing of -60°C up to +180°C
- ✓ Contact forces down to 25g/ pin
- ✓ Scrubbing Kelvin solution for ≥ 0.4mm pitch

Electrical Specifications <sup>①</sup>	Single Contact (Non-Kelvin)	Dual Contact (Kelvin)
Self Inductance (nH)	5.00	4.90
Resistance (mΩ)	≤ 30	≤ 10
Current Carrying Capacity - CCC (A) Duty Cycle 100%, 75%, 50%, 25%, 1% (300ms)	2.6, 3.1, 3.6, 6, 25.6	
Current Leakage (pA) @ 10V	≤ 1.0	

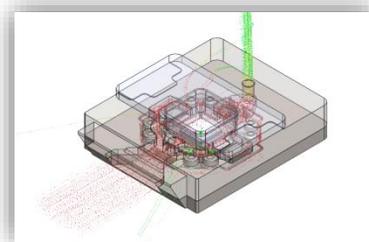


Without thermal refinement -  
Uneven heat distribution

Mechanical Specifications	Gamma Inner	Gamma Outer
Physical Pin Length (mm)	12.54	13.44
Pin Uncompressed Height (mm)	5.09	
Pin Compliance (mm)	0.20	
Pin Wiping Length/pin (mm)	< 0.10	
Gram Force Per Pin (g)	20 ~ 30	10 ~ 15
Number of Insertion - Housing	≥ 6M	
Number of Insertion - Pin (Matte Tin)	≥ 500K	
Number of Insertion - Pin (NiPd)	≥ 300K	
Operating temperature (°C)	- 60 to +180	
Socket Material	TORLON® 5030 or equivalent	
Pin Material	BeCu - Ni-Au	



Precision thermal socket design -  
Consistent DUT temperature



Contactor temperature simulation

① Results for 0.2mm thickness of pin



Component breakdown of  
Gamma module assembly

**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.

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