

ETA.5™ TEST CONTACTING SOLUTION

(PATENT NO: 10,018,652 B2)

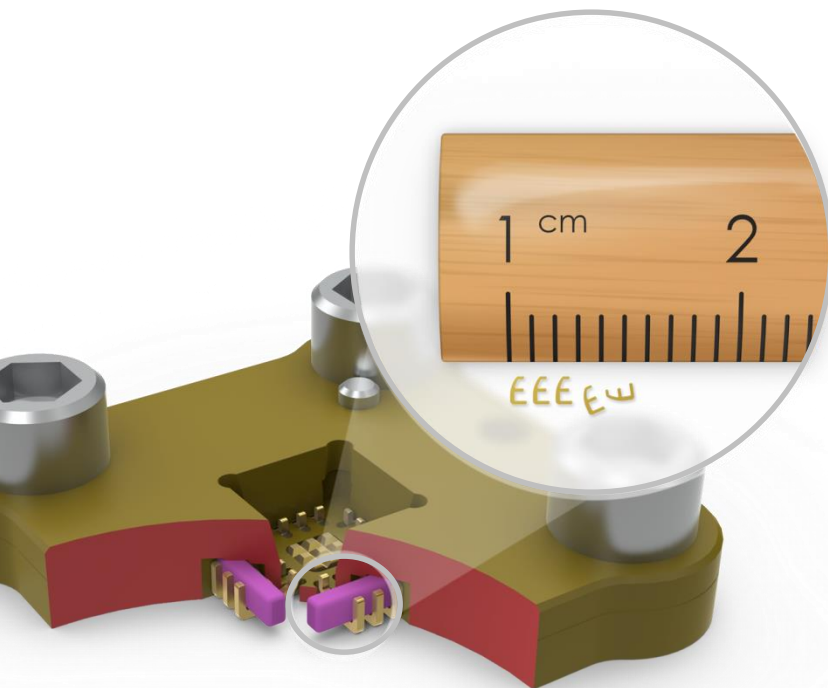
FOR HIGH-FREQUENCY & MIXED-SIGNAL APPLICATIONS

JF Microtechnology has developed a new ultra-short contacts to satisfy the high-performance ATE requirements for GHz RF, mixed-signal, analog and other high-frequency applications.

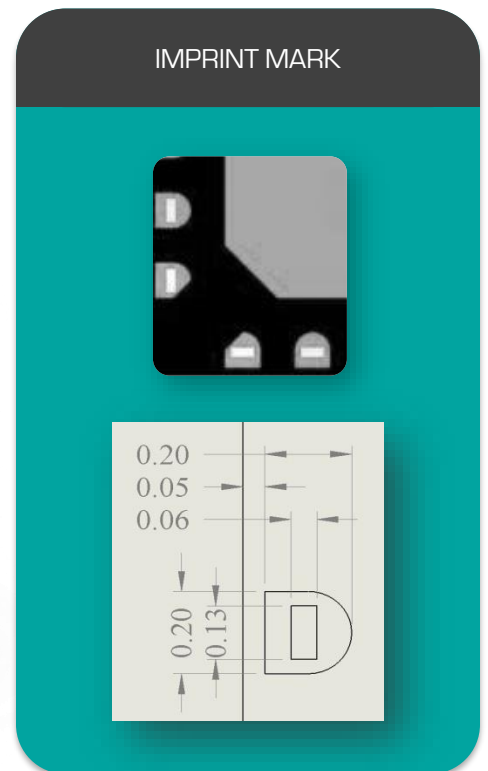
Eta.5 featuring our super-short wipe and short electrical path contact design deliver a seamless electrical and mechanical transition from the laboratory to the test floor.

Our unique contact design is capable of $\geq 0.30\text{mm}$ pitch leads which is ideal for production testing of your QFP, DFN, QFN, SOP, TSSOP, SOC and LGA style packages.

Do You Need	Eta.5 Offers
Short DUT pad or leads	Scrubbing 0.04 ~ 0.06mm
Very small packages	0.8 x 0.8mm
Fine pitch devices	$\geq 0.3\text{mm}$
High frequency testing	27GHz
Sensitive grounding testing	Special grounding design solutions



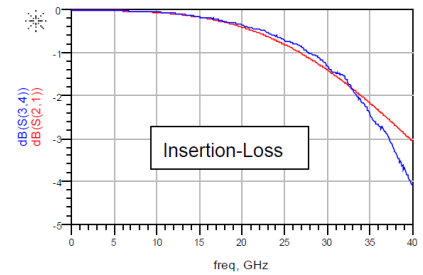
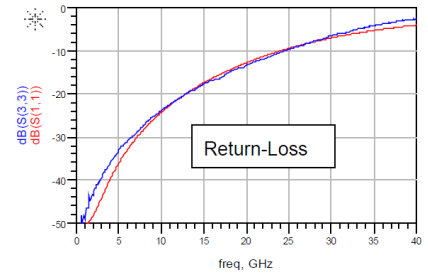
Package range : QFP, DFN, QFN, SOP, TSSOP, SOC, LGA



Design Features

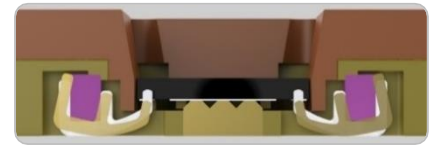
- ✓ Extremely short signal path
- ✓ No pin engagement with back stopper
- ✓ Short Wiping Stroke (SWS) Technology
- ✓ No twisting/twirling like round elastomer
- ✓ Special contact tip profile for scrubbing

Electrical Specifications ①	Eta.5
S11 (Return Loss/Bandwidth)	- 20dB @ 13GHz
S21 (Insertion Loss/Bandwidth)	- 1.0dB @ 27GHz
S41 (Crosstalk/Bandwidth)	- 20dB @ 13GHz
Self Inductance (nH)	0.38
Mutual Inductance (nH)	0.095
Ground Capacitance (pF)	0.14
Mutual Capacitance (pF)	0.049
Resistance (mΩ)	≤ 20
Current Carrying Capacity - CCC (A) Duty Cycle 100% (300ms)	3.1
Current Leakage (pA) @ 10V	≤ 1

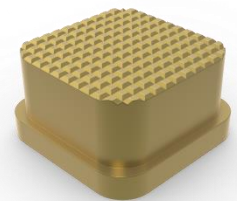


Bandwidth Performance

Mechanical Specifications	Eta.5
Pin Uncompressed Height (mm)	0.5 *
Pin Compliance (mm)	0.1 *
Pin Tip Co-planarity (mm)	0.05 *
Pin Wiping Length (mm)	0.04 ~ 0.06 *
Gram Force Per Pin (g)	15 ~ 20
Number of Insertion - Housing	≥ 6M *
Number of Insertion - Elastomer	≥ 400K *
Number of Insertion - Pin (Matte Tin)	300 ~ 500K *
Number of Insertion - Pin (NiPd)	
Operating temperature (°C)	- 45 to +155
Socket Material	TORLON® 5030 or equivalent
Pin Material	BeCu-Ni-Au



SWS Methodology



Spiked Ground Block

① Results for 0.2mm thickness pin

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.