

# ETA.5™

TEST CONTACTING SOLUTION (PATENT NO: 10,018,652 B2)



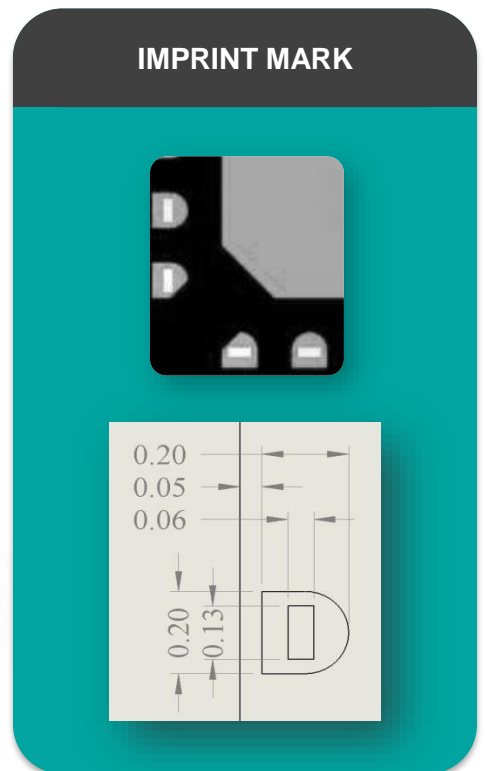
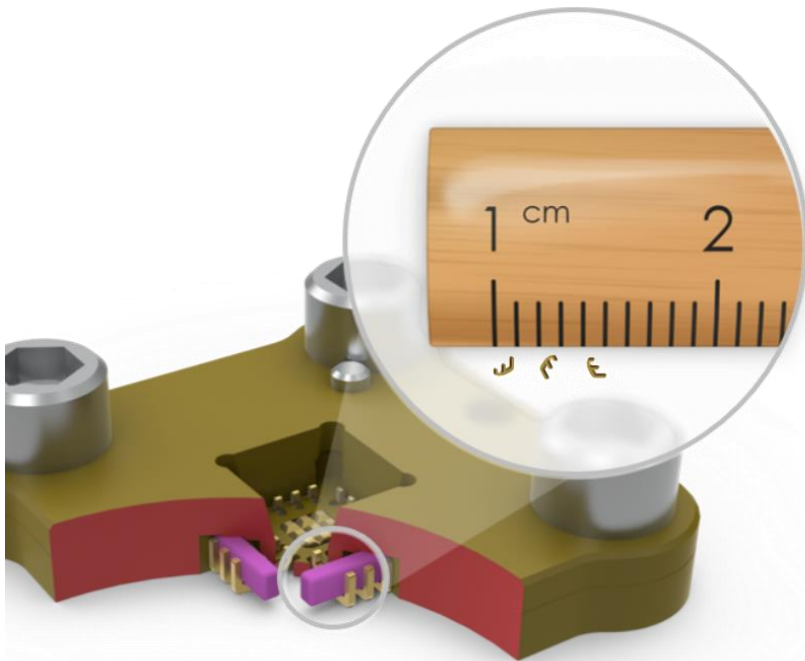
## FOR HIGH-FREQUENCY & MIXED-SIGNAL APPLICATIONS

JF Microtechnology has developed a new ultra-short contact 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 delivers 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

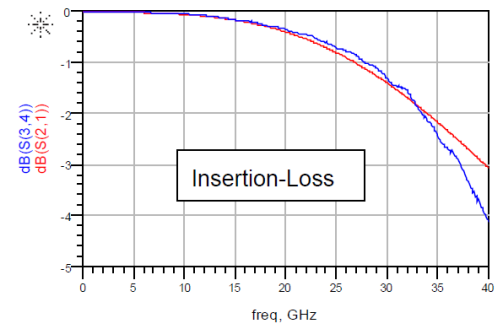
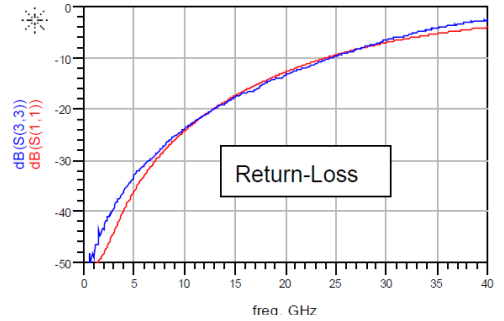


**Package Range : QFP, DFN, QFN, SOP, TSSOP, SOC, LGA**

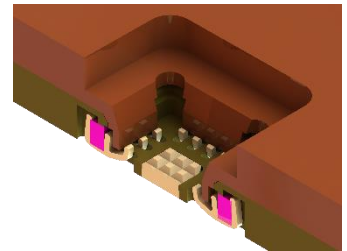
## Design Features

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

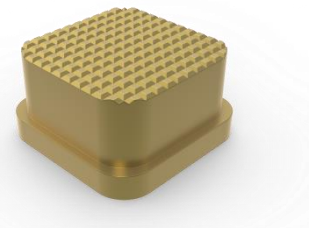
Electrical Specifications	Eta.5 ①
Self Inductance (nH)	0.38
Mutual Inductance (nH)	0.1
Ground Capacitance (pF)	0.14
Mutual Capacitance (pF)	0.05
S11 (Return Loss/Bandwidth)	- 20dB @ 13GHz
S21 (Insertion Loss/Bandwidth)	- 1.0dB @ 27GHz
S41 (Crosstalk/Bandwidth)	- 20dB @ 13GHz
Contact DC Resistance (mΩ)	≤ 20
Current Carrying Capacity - CCC (A) Duty Cycle 100% (300ms)	3.1
Current Leakage (pA) @ 10V	≤ 1



## Bandwidth Performance



0.5 mm test height



Spiked Ground Block

Mechanical Specifications	Eta.5
Contact Uncompressed (mm)	0.5
Contact Compliance (mm)	0.1
Contact Tip Co-planarity (mm)	0.05
Contact Wiping Length (mm)	0.04 ~ 0.06
Gram Force per Contact (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
Contact Pin Material	BeCu - NiAu

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.

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