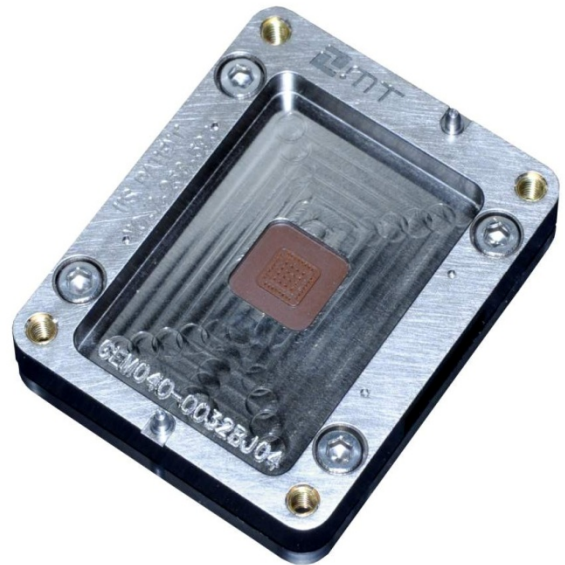


## Low Inductance and High Frequency Contactor Technology for High Volume Production

### Features:

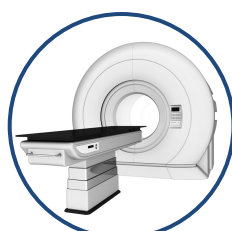
- revolutionary dual-spring probe design with parallel current paths
- extremely low loop inductance and ultra high bandwidth
- high frequency: 40 GHz @ -1dB
- device pitch down to 0.4 mm
- slotted contactor design optimizes targeting
- excellent resistance stability and longer usable life



- RF transceivers, high-gain amplifiers, WiMax, 3G devices, filters, DACs, ADCs
- high-speed devices
- high-gain devices
- low-noise applications
- clean power delivery



RF / Analog



Digital



Power / Sensor



Wafer Level Test



## Low Inductance and High Frequency Contactor Technology for High Volume Production

### 1. Packages and Application

- 1.1 Packages
- QFN, DFN, QFP, SOT, BGA

### 2. Environmental

- 2.1 Temperature Range
- -55° C to +155° C

### 3. Reliability\*

- 3.1 Typical Probe Life
- 500 k cycles
  - probe cleaning 50 k to 100 k

### 4. Electrical

- 4.1 Bandwidth @ -1 dB
- GEM040 @ 0.40 mm pitch: 29 GHz
  - GEM040 @ 0.50 mm pitch: 40 GHz
- 4.2 Loop Inductance
- GEM040 @ 0.40 mm pitch: 0.45 nH
  - GEM040 @ 0.50 mm pitch: 0.55 nH
- 4.3 Typical Contact Resistance\*\*
- 40 mOhm
- 4.4 Current Carrying Capacity
- 20° T-Rise Current: 2.7 A
  - 40° T-Rise Current: 3.8 A
  - 60° T-Rise Current: 4.6 A
- 4.5 Maximum @ 1% Duty Cycle
- 18.4 A

specifications are subject to change without notification and are for reference only. use contactor drawing to design interface hardware.

\*cleaning frequency and life specifications are estimates based on customer feedback. actual values are dependent on the application (DUT materials, handler kit, maintenance, etc.)

\*\* typical resistance measured between Au plated sheets

### 5. Mechanical

- 5.1 Contact Pitches Supported
- 0.4 mm and up inline
  - 0.5 mm and up array
- 5.2 Contact Force at Test Height
- 0.31 N (31 g)
- 5.3 Test Height
- 1.55 mm / 0.061 in
- 5.4 Pin Travel at Test Height
- 0.36 mm / 0.014 in
- 5.5 DUT Tip Style
- single edge; dual edge, 0.14 mm apart
- 5.6 PCB Tip Style
- 0.3 mm radius

### 6. Materials

- 6.1 Housing Material
- Vespel SP-1 (others available)
- 6.2 Spring Probe Material
- hard, proprietary alloy
- 6.3 Spring Material
- stainless steel
- 6.4 Plating Material
- hard gold

### 7. Configurations / Interface Options

- 7.1 Automated Test
- handler specific design / configuration
- 7.2 Optional manual actuator
- 7.3 e-beam probe support
- 7.4 Custom configurations

All performance figures such as MTBF, MTBA, Uptime, Yield, Jam Rate, Life Span, Cleaning Cycles etc. can vary with specific package type, test program and / or specific application environment. They assume that only original Multitest spare and consumable parts are used, recommended maintenance intervals and procedures are respected, operators/maintenance technicians have successfully participated in formal equipment training by Multitest to the appropriate level, and only Multitest approved software is used on the systems. Multitest assumes no warranty or liability if any of these requirements is not met. All listed data are for information only. For binding specification please contact your sales person.

