

# 3M™ Textool™ BGA Test & Burn-In Sockets

1.00 mm, Types 0, I, II and III Open Top



- Double-beam normally-closed contact delivers balanced, opposing forces to solder ball with minimal shear stress
- Contact tips touch ball above its center plane producing only slight indentations and minimal ball deformation
- Allows excellent air flow around device
- Includes a retractable locating guide for easy board mounting even with hundreds of leads
- Compatible with most robotic handlers while it provides easy manual operation
- Accepts package body sizes up to 29 mm square with a maximum matrix of 27 x 27
- RoHS\* compliant

Date Modified: June 16, 2005

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## Physical

**Body Material:** Polyethersulfone (PES)  
Flammability: UL 94V-0  
Color: Black  
**Alignment Plate Material:** Liquid Crystal Polymer (LCP)  
Flammability: UL 94V-0  
Color: Black  
**Contact Material:** Beryllium Copper  
Plating: 30µ" (0.76 µm) Gold over 50µ" (1.3 µm) Nickel  
**Other Metal Parts:** Stainless Steel

## Electrical

**Insulation Resistance:** >1000MΩ at 500 Vdc  
**Withstanding Voltage:** 500 Vrms at sea level  
**Initial Contact Resistance:** <50mΩ measured at 1.0 mA applied current  
**Current Rating:** 1.0 A max @ 25°C

## Environmental

**Operating Temperature Rating:** -55°C to +150°C

## Mechanical

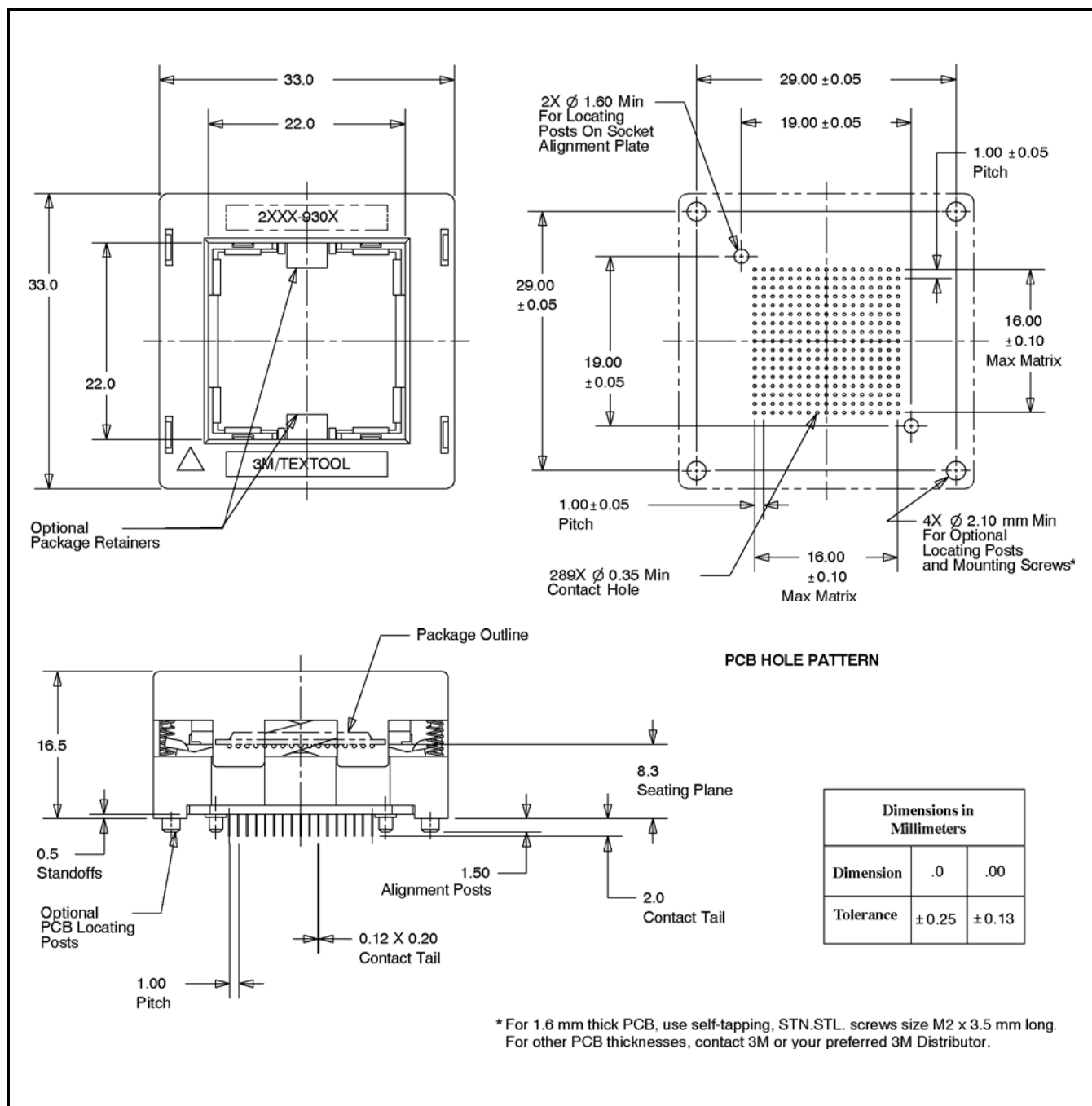
**Durability:** 20,000 actuations (10,000 devices load/unload) at room temperature  
**Initial Contact Force:** 17 gf (0.17N) Nom for 0.6 mm diameter solder ball  
14 gf (0.14N) Nom for 0.5 mm diameter solder ball  
**Initial Actuation Force:** Type II-5Kgf @ full pin count  
**Contact Wiper Gap - Fully Open:** 0.85 mm Nom

\* RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment  
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

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Type 0



## Package Specifications

Max Package Size: 19.0 mm  $\pm$  0.1 mm SQ Max

Max Matrix: 17  $\times$  17

Ball Diameter: 0.40 mm - 0.70 mm

Ball Height: 0.40 mm Min

## P.C.B. Recommendations

Board Thickness: 1.6 mm

Through Hole Diameter 0.35 mm Min

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Interconnect Solutions

<http://www.3M.com/interconnects/>

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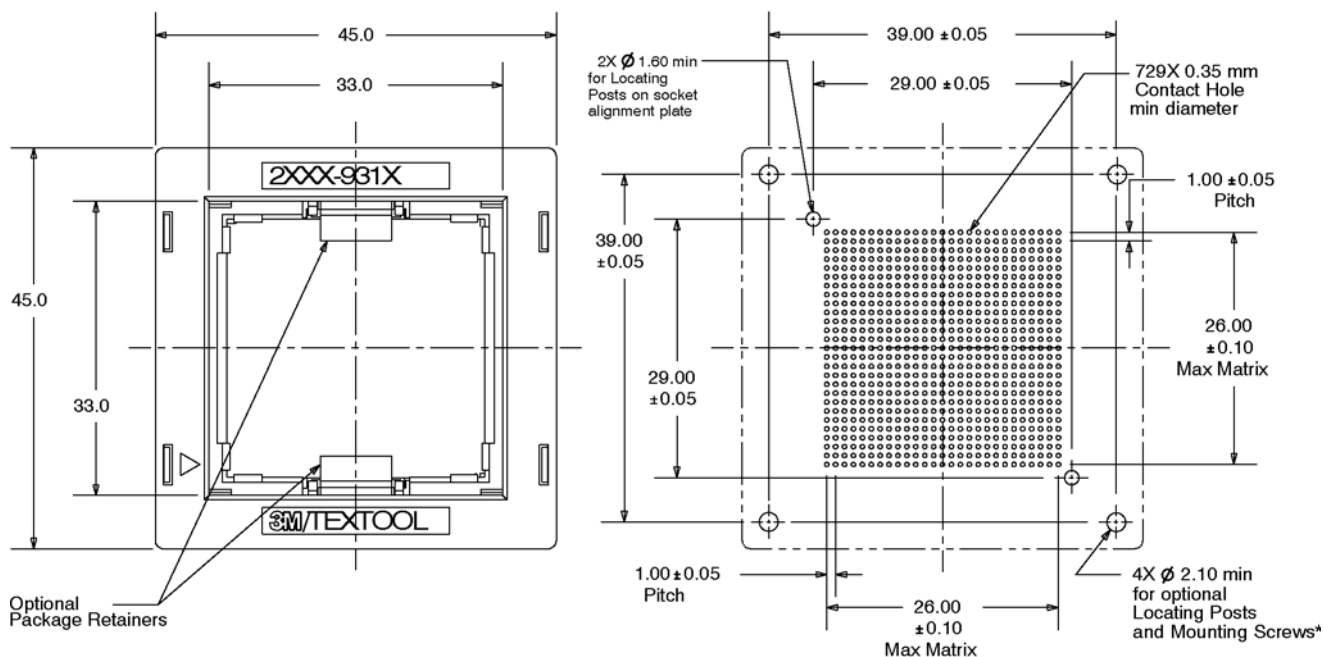
For technical, sales or ordering information call

800-225-5373

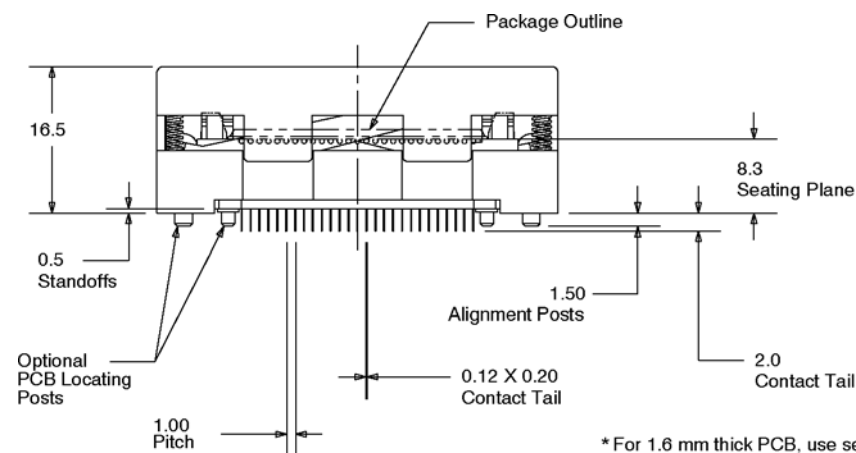
# 3M™ Textool™ BGA Test & Burn-In Sockets

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Type I



PCB HOLE PATTERN



| Dimensions in Millimeters |        |        |
|---------------------------|--------|--------|
| Dimension                 | .0     | .00    |
| Tolerance                 | ± 0.25 | ± 0.13 |

\* For 1.6 mm thick PCB, use self-tapping, STN.STL. screws size M2 x 3.5 mm long  
For other PCB thicknesses, contact 3M or your preferred 3M Distributor.

## Package Specifications

Max Package Size: 29 mm ± 0.1 mm SQ Max

Max Matrix: 27 × 27 Max

Ball Diameter: 0.40 mm - 0.70 mm

Ball Height: 0.40 mm Min

## P.C.B. Recommendations

Board Thickness: 1.6 mm

Through Hole Diameter 0.35 mm Min

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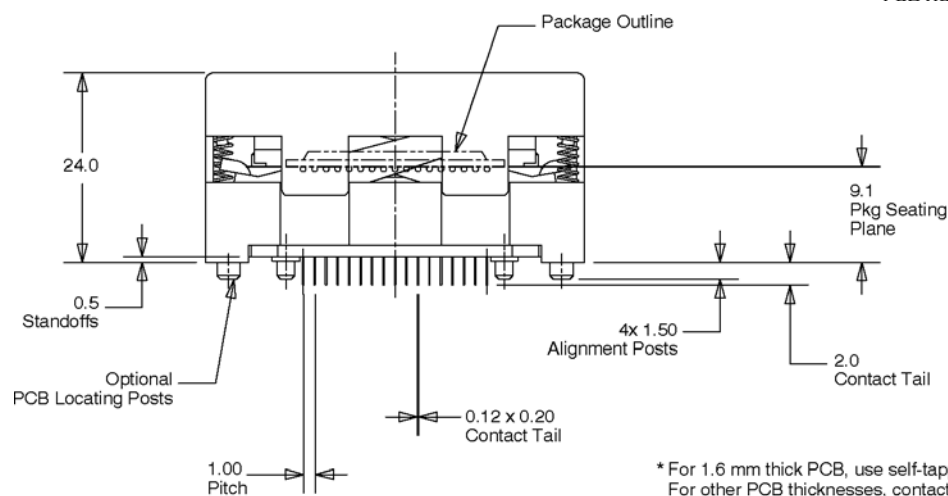
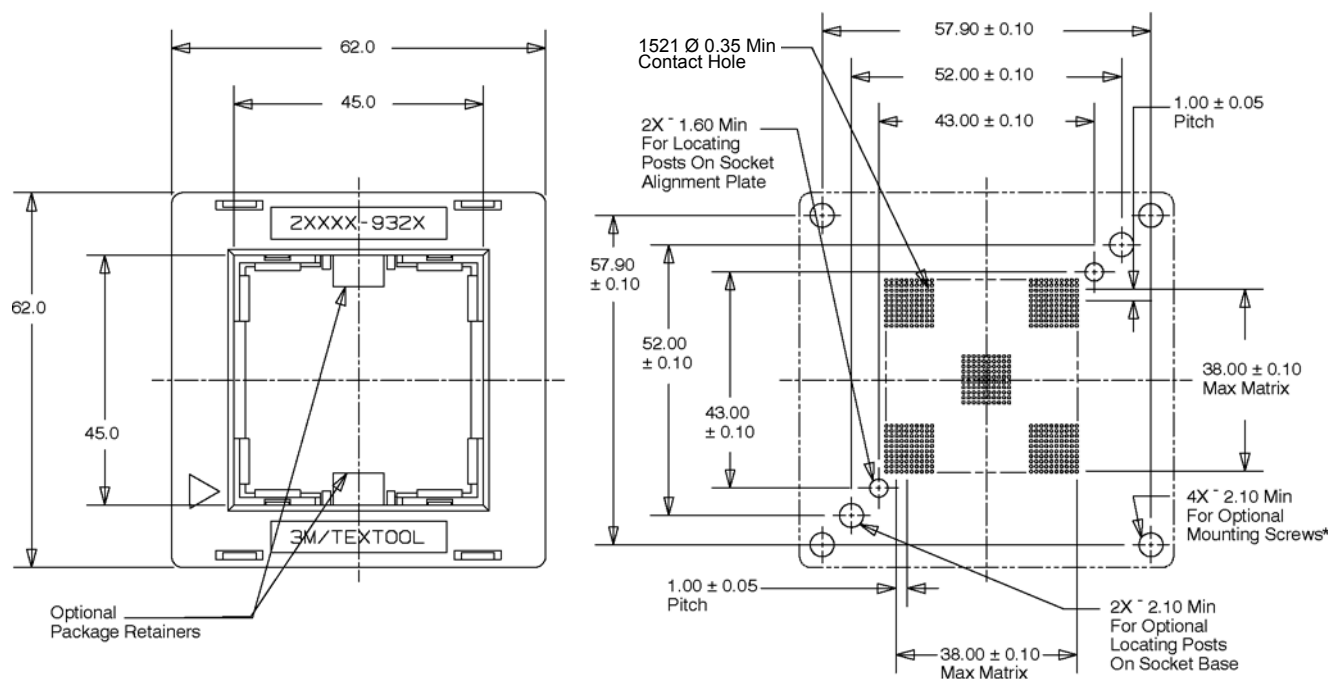
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# 3M™ Textool™ BGA Test & Burn-In Sockets

1.00 mm, Types 0, I, II and III Open Top

Type II



| Dimensions in Millimeters |            |            |
|---------------------------|------------|------------|
| Dimension                 | .0         | .00        |
| Tolerance                 | $\pm$ 0.25 | $\pm$ 0.13 |

\* For 1.6 mm thick PCB, use self-tapping, STN.STL. screws size M2 x 3.5 mm long  
For other PCB thicknesses, contact 3M or your preferred 3M Distributor.

## Package Specifications

Max Package Size: 40.0 mm  $\pm$  0.1 mm SQ Max

Max Matrix: 39  $\times$  39

Ball Diameter: 0.40 mm - 0.70 mm

Ball Height: 0.40 mm Min

## P.C.B. Recommendations

Board Thickness: 1.6 mm

Through Hole Diameter 0.35 mm Min

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Interconnect Solutions

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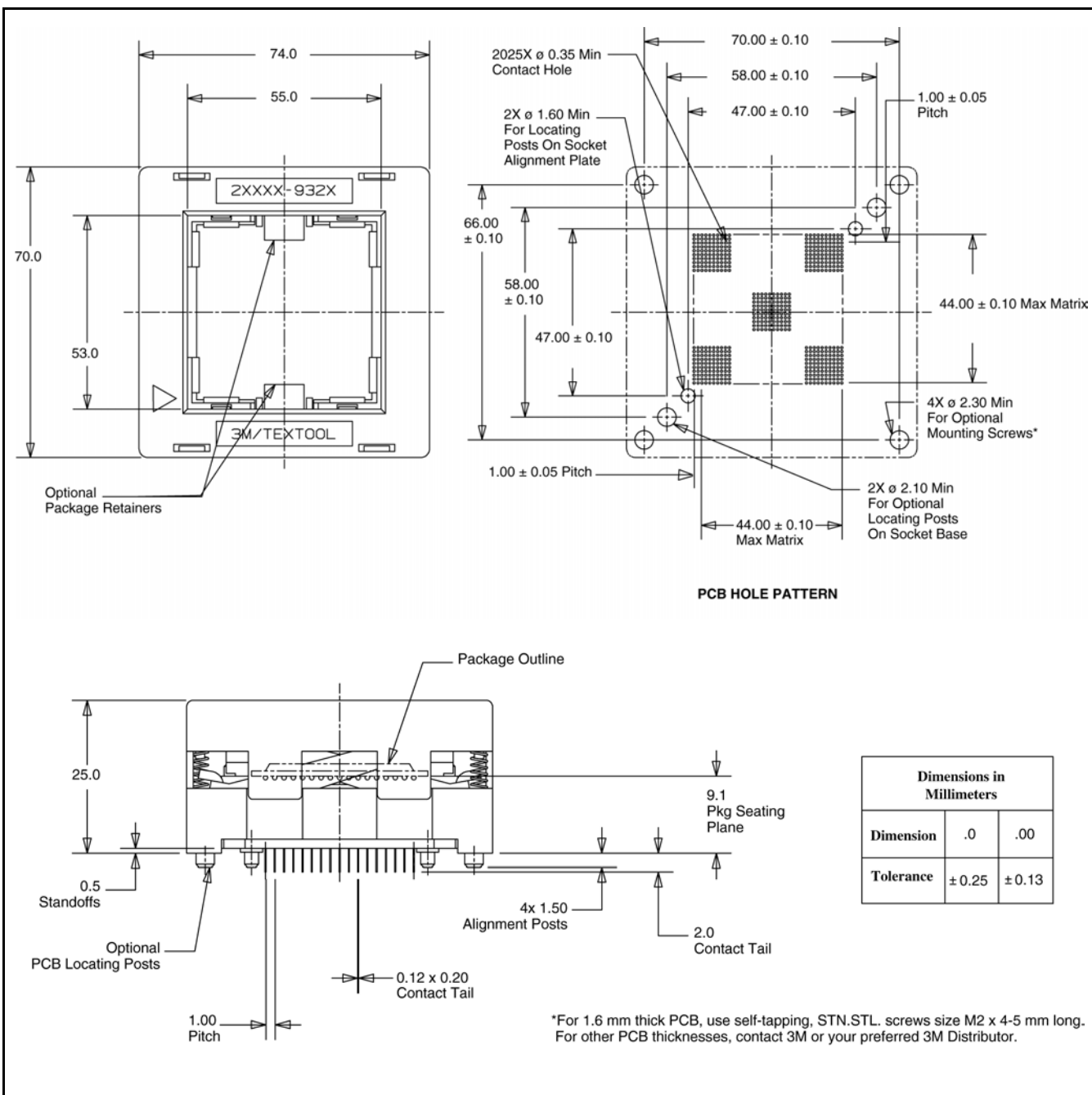
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# 3M™ Textool™ BGA Test & Burn-In Sockets

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Type III



## Package Specifications

Max Package Size: 47.5 mm  $\pm$  0.1 mm SQ Max

Max Matrix: 45  $\times$  45

Ball Diameter: 0.50 mm - 0.70 mm

Ball Height: 0.40 mm Min

## P.C.B. Recommendations

Board Thickness: 1.6 mm

Through Hole Diameter 0.35 mm Min

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Interconnect Solutions

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