Pin Grid Arrays



- · Lever actuated zero insertion force mechanism
- Rugged 3-plate construction for durability and electrical reliability
- Available in 10 x 10 through 25 x 25 matrices
- PTFE coated stainless steel handle durable and safe in high humidity environment
- Optical locating holes for robotics loading/unloading
- Repairable contacts, handles, top-plate, and cam plate are replaceable
- Available with flush handle option for use with test probes and ease of board stacking

Date Issued: November 1, 1999

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### **Physical**

**Insulation** 

Material: Polyethersulfone (PES)

Flammability: UL 94V-0 Color: Black (PES)

Marking: Part Number Identifier and Logo on All

Cam Handle

Material: Stainless Steel

**Contact** 

Material: Beryllium Copper

Plating: 30 m<sup>2</sup> (0.76 mm) Gold – MIL-G-45204, Type II, Grade C, over 50 m<sup>2</sup> (1.3 mm)

Nickel QQ-N-290A, Class 2

### **Electrical**

**Current Rating:** 1 Amp

**Insulation Resistance:**  $> 1 \pm 10^{12}$  Wat 500 Vdc **Withstanding Voltage:** 1000 Vrms at Sea Level

### **Environmental**

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

### Mechanical

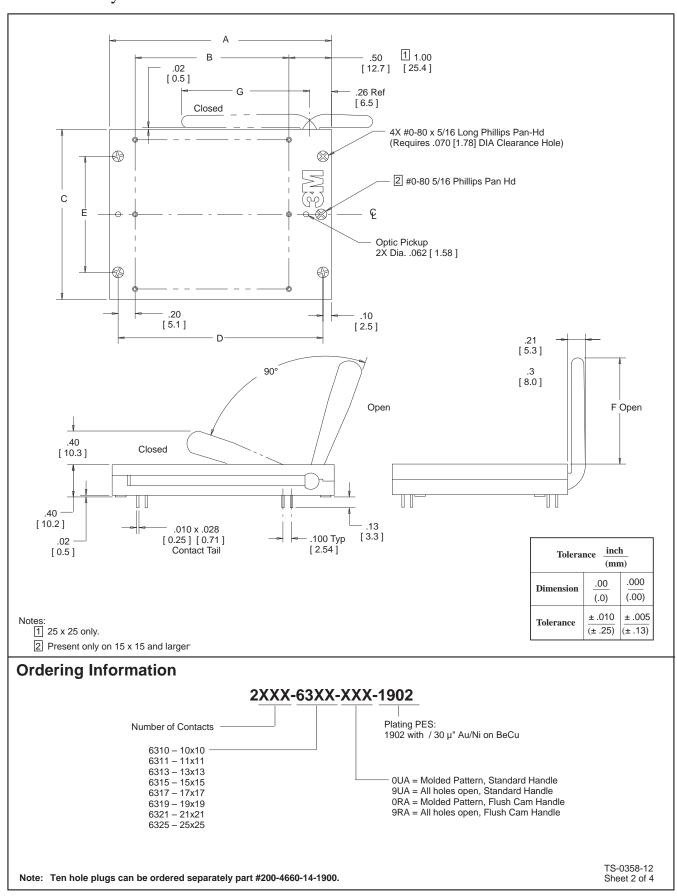
**PES/BeCu** A. When used as a test socket at room temperature 24°C the socket will last 25,000 actuations.

B. Based on field experience, under normal burn-in conditions up to a maximum of 150°C for PES, the socket should last an average of four years.

**3M Electronic Handling and Protection Division** 

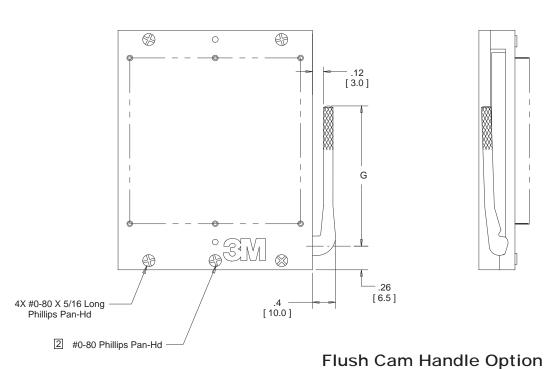
6801 River Place Blvd. Austin, TX 78726-9000 For technical, sales or ordering information call 800-328-0411 or visit our website: http://www.3M.com/ehpd

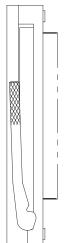
Pin Grid Arrays



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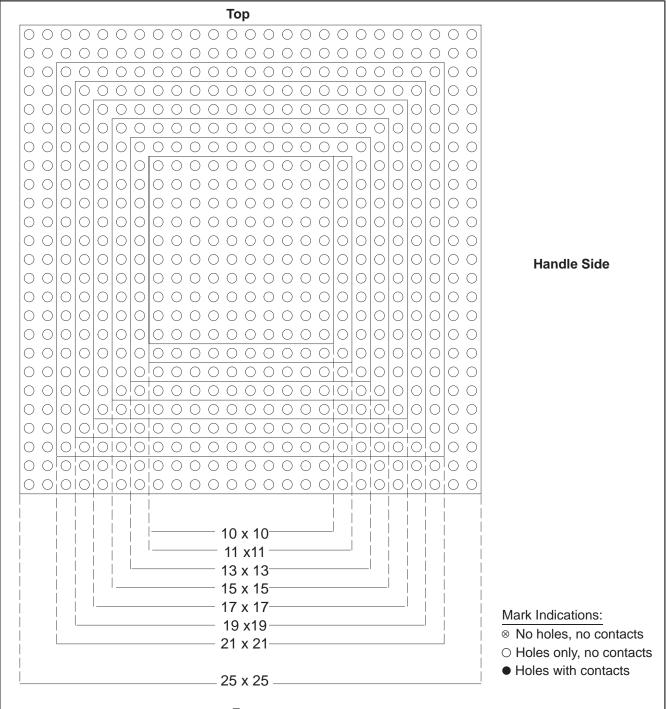
Grid Matrix	Maximum Contact Quantity	Dimensions						Dimension G Cam Handle	
		A	В	C	D	E	F	Standard	**Flush
10 x 10	100	1.70 [ 43.2 ]	.90 [ 22.9 ]	1.15 [ 29.2 ]	1.50 [ 38.1 ]	.90 [ 22.9 ]	.80 [ 20.3 ]	.80 [ 20.3 ]	1.00 [ 25.4 ]
11 x 11	121	1.80 [ 45.7 ]	1.00 [ 25.4 ]	1.25 [ 31.8 ]	1.60 [ 40.6 ]	1.00 [ 25.4 ]	.80 [ 20.3 ]	.80 [ 20.3 ]	1.00 [ 25.4 ]
13 x 13	169	2.00 [ 50.8 ]	1.20 [ 31.8 ]	1.45 [ 36.8 ]	1.80 [ 45.7 ]	1.00 [ 25.4 ]	.80 [ 20.3 ]	.80 [ 20.3 ]	1.00 [ 25.4 ]
15 x 15	225	2.20 [ 55.9 ]	1.40 [ 35.6 ]	1.65 [ 41.9 ]	2.00 [ 50.8 ]	1.20 [ 30.5 ]	1.30 [ 33.0 ]	1.40 [ 35.6 ]	1.50 [ 38.1 ]
17 x 17	289	2.40 [ 61.0 ]	1.60 [ 40.6 ]	1.85 [ 47.0 ]	2.20 [ 55.9 ]	1.20 [ 30.5 ]	1.30 [ 33.0 ]	1.40 [ 35.6 ]	1.50 [ 38.1 ]
19 x 19	361	2.60 [ 66.0 ]	1.80 [ 45.7 ]	2.05 [ 52.1 ]	2.40 [ 61.0 ]	1.40 [ 35.6 ]	1.70 [ 43.2 ]	1.80 [ 45.7 ]	1.90 [ 48.2 ]
21 x 21	441	2.80 [ 27.1 ]	2.00 [ 50.8 ]	2.25 [ 57.2 ]	2.60 [ 66.0 ]	1.40 [ 35.6 ]	1.70 [ 43.2 ]	1.80 [ 45.7 ]	1.90 [ 48.2 ]
25 x 25	625	3.70 [ 94.0 ]	2.40 [ 61.0 ]	2.65 [ 67.3 ]	3.50 [ 88.9 ]	2.00 [ 50.8 ]	2.58 [ 65.5 ]	2.78 [ 70.6 ]	2.78 [ 70.6 ]





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Pin Grid Arrays



#### Front

#### Notes:

- This is only a work sheet. Do not proceed with any layout until a part number is assigned by Textool. The pattern is subject to repositioning.
- 2. Lead diameter = .022 [ 0.56 ] max, .014 [ 0.36 ] min. The standard socket has been designed to accept these lead diameters only. For all others please consult the factory.
- 3. Use this sheet to indicate which positions you intend to use.
- 4. Remember: for best results, keep your patterns as symmetrical with the centerline as possible.
- 5. The contact point for all sizes is .085 [ 2.16 ] below th top surface and we recommend a device lead length of .100 [ 2.54 ] below the solder standoffs.

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