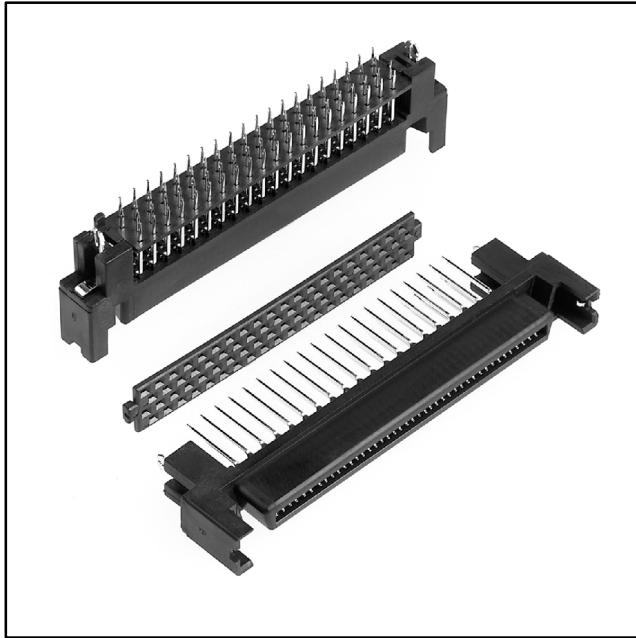


# 3M™ SCA-2 Socket

Boardmount Receptacle, Vertical or Extended Straight, Thru-Hole

SCA2 Series



- Single Connector Attach ( SCA-2 ) per Small Form Factor (SFF) Industry Standard
- Available in 40 and 80 positions
- Ribbon type contacts
- Two level contact sequencing offers power and ground engagement prior to signal transmission
- ESD contacts offer advanced grounding for hot plugging
- Polarization feature prevents PCB placement errors
- Retention clip eliminates connector movement on PCB
- 6 mm Extended Version with Standard Height, Thru-Hole Solder Tails

Date Modified: June 8, 2006

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## Physical

### Insulation

Material: Glass filled Thermoplastic  
Flammability: UL 94V-0  
Color: Black

### Contacts

Material: Phosphor Bronze

### Plating

Underplating: Refer to Ordering Information  
Wiping Area: Refer to Ordering Information  
Solder Tails: 100  $\mu\text{m}$  [ 2.54 mm ] min. Tin/Lead

### ESD Contacts Only:

Underplating: 50  $\mu\text{m}$  [ 1.27  $\mu\text{m}$  ] min. Nickel  
Plating Over: 50  $\mu\text{m}$  [ 3.82  $\mu\text{m}$  ] min. Tin/Lead

Connector Mating Cycles: 500 cycles

## Electrical

**Current Rating:** 1 A

**Insulation Resistance:**  $>1 \times 10^9 \Omega$  min. at 500 V DC

**Dielectric Withstanding Voltage:** 500 V AC for 1 minute

## Environmental

**Temperature Rating:**  $-40^\circ\text{C}$  to  $+105^\circ\text{C}$

UL File No.: E68080

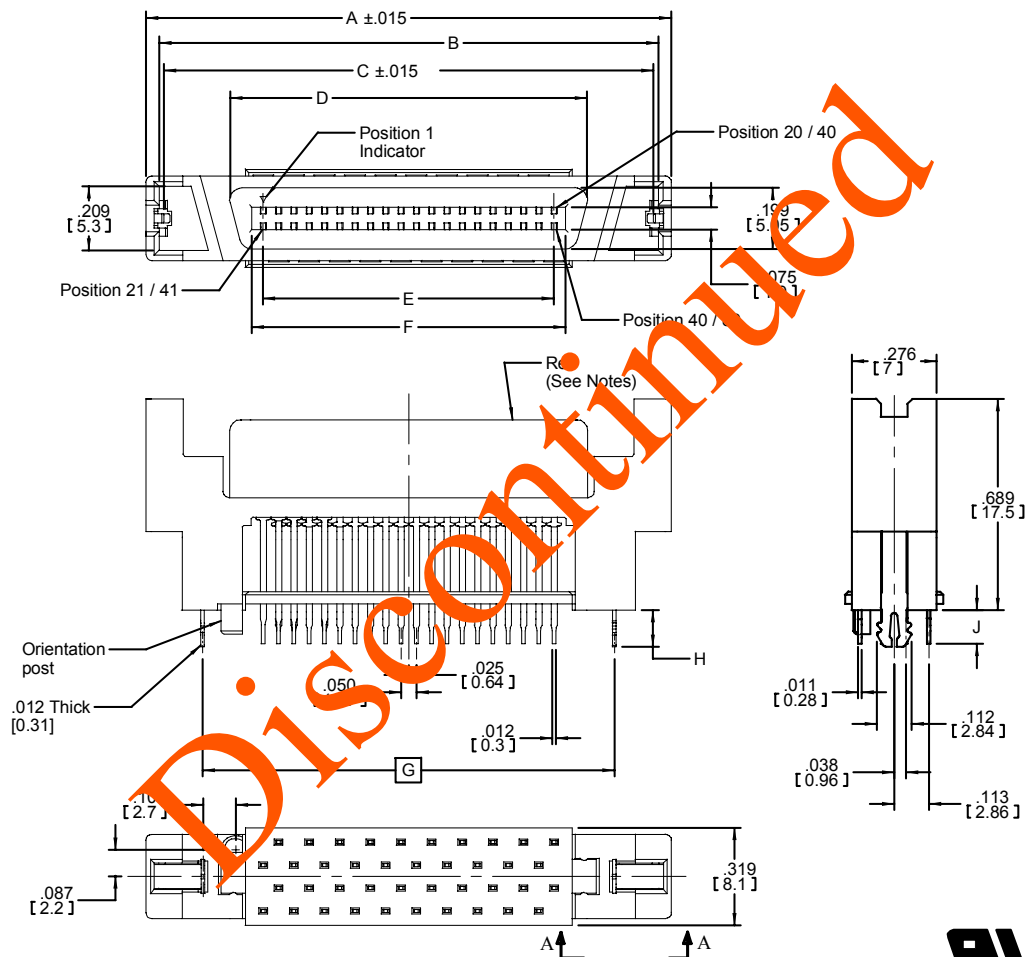
# 3M™ SCA-2 Socket

## Boardmount Receptacle, Vertical or Extended Straight, Thru-Hole

SCA2 Series

### Extended

Contact Qty	A	B	C	D	E	F	G	H grnd tabs	J sig. tails	K
40	1.72 [43.6]	1.63 [41.4]	1.58 [40.2]	1.168 [29.67]	.950 [24.13]	1.025 [26.03]	1.343 [34.11]	see order info	see order info	1.343 [34.11]
80	2.72 [69]	2.63 [66.8]	2.58 [65.6]	2.168 [55.07]	1.950 [49.53]	2.025 [51.43]	2.343 [59.51]	see order info	see order info	2.343 [59.51]



#### Notes:

1. Long signal contacts measured from Reference = 0.078" [ 1.98 ] Typical. This dimension applies to position numbers:  
[ (80 pos.): 1, 36 thru 43, 45, 46 & 75 thru 80 ] [ (40 pos.): 21 thru 23, 26, 29, 32, & 35 thru 40 ]
2. Short signal contacts measured from Reference = 0.098" [ 2.48 ] Typical. This dimension applies to position numbers:  
[ (80 pos.): 2 thru 35, 44, & 47 thru 74 ] [ (40 pos.): 1 thru 20, 24, 25, 27, 28, 30, 31, 33 & 34 ]
3. ESD contacts measured from Reference = 0.039" [ 1.0 ] Typical

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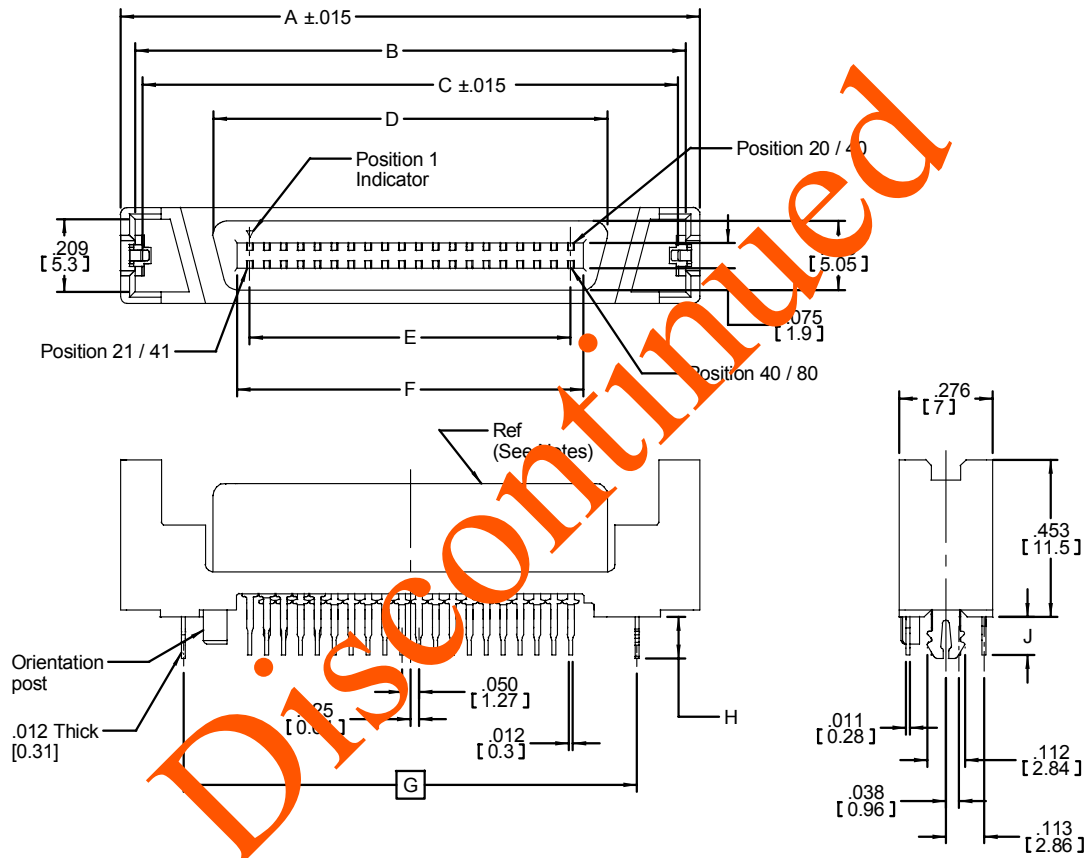
# 3M™ SCA-2 Socket

## Boardmount Receptacle, Vertical or Extended Straight, Thru-Hole

SCA2 Series

### Vertical

Contact Qty	A	B	C	D	E	F	G	H grnd tabs	J sig. tails	K
40	1.72 [43.6]	1.63 [41.4]	1.58 [40.2]	1.168 [29.67]	.950 [24.13]	1.025 [26.03]	1.343 [34.11]	see order info	see order info	1.343 [34.11]
80	2.72 [69]	2.63 [66.8]	2.58 [65.6]	2.168 [55.07]	1.950 [49.53]	2.025 [51.43]	2.343 [59.51]	see order info	see order info	2.343 [59.51]



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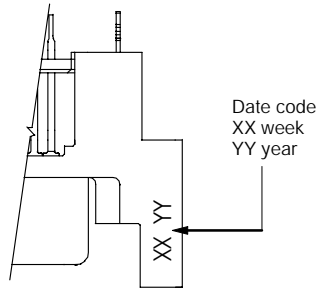


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# 3M™ SCA-2 Socket

## Boardmount Receptacle, Vertical or Extended Straight, Thru-Hole

SCA2 Series

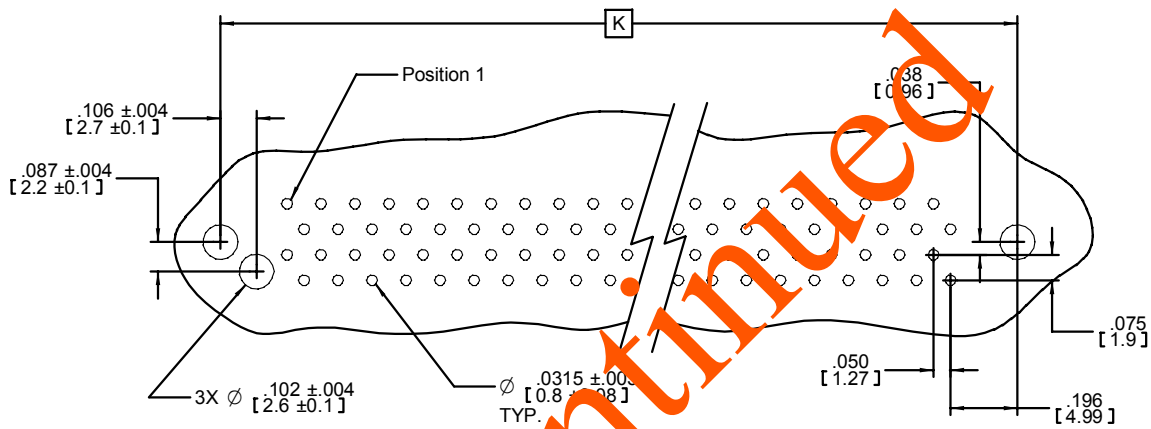


View A-A

**Inch**  
[mm]

Tolerance Unless Noted			
	.0	.00	.000
inch	±.1	±.01	±.005

[ ] Dimensions for Reference Only



Recommended Mounting Hole Pattern  
Viewed From Connector Side of Board

### Ordering Information

**SCA2 - XX - SX - X X - XXXX**

- Contact Quantity: 40, 80
- Socket (Receptacle)
- A-Extended Height: Blank standard height
- Tail Style:
  - R = Standard Vertical thru hole - ESD clip with locking ground tab
  - S = Vertical thru hole - ESD clip with zero insertion force ground tab (Only available in 80 position version with TR plating option and .125 tail length.) Not available with extended height
  - N = No ESD clip (only available in 80 position version with TR plating Option and .110 tail length.) Not available with extended height.
- Plating Options:
  - TR = 2 μ" [ 0.05 μm ] Min. Gold flash over 6 μ" [ 0.5 μm ] Min. PdNi with 50 μ" Min Ni underplate
  - TG30 = 30 μ" Min. Au with 80 μ" Min Ni underplate (TG30 available only in vertical 80 position with R2 tail)
- Tail Lengths Dimensions J ( signal ) and H ( ground tab ) :
  - 1 = signal .110" [ 2.79 ] , ground tab .094" [ 2.39 ]
  - 2 = signal .125" [ 3.18 ] , ground tab .118" [ 2.99 ]
  - 5 = signal .180" [ 4.57 ] , ground tab .182" [ 4.62 ]

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Minimum 10%  
Post-Consumer Fiber

Printed in USA.

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