**HIGH-SPEED GROUND PLANE SOCKET**

**SPECIFICATIONS**
For complete specifications and recommended PCB layouts see www.samtec.com/QSH

- **Insulator Material:** Liquid Crystal Polymer
- **Contact Material:** Phosphor Bronze
- **Plating:** Au or Sn over 50 µ” (1.27 µm) Ni
- **Current Rating:**
  - Contact: 2 A per pin (2 pins per bank)
  - Ground Plane: 25 A per ground plane
- **Operating Temp Range:** -55 °C to +125 °C
- **Voltage Rating:** 175 VAC (5 mm Stack Height)
- **Max Cycles:** 100
- **RoHS Compliant:** Yes

**PROCESSING**
- Lead-Free Solderable: Yes
- SMT Lead Coplanarity: 0.10 mm (.004") max (020-060)
- Board Stacking: For applications requiring more than two connectors per board contact ipg@samtec.com

**RECOGNITIONS**
For complete scope of recognitions see www.samtec.com/quality

**PROTOCOLS**
- 100 GbE
- Hypertransport™
- XAU
- PCI Express®
- IntiniBand®
- 100 GbE
- Hypertransport™
- XAU
- PCI Express®
- InfiniBand™

**ALSO AVAILABLE** (MOQ Required)
- 15 mm, 22 mm and 30 mm stack height
- 30 µ” (0.76 µm) Gold
- 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on all solder tails
- Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails
- Electro-Polished Selective 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on Signal Pins in contact area
- Matte Tin over 50 µ” (1.27 µm) min Ni on all solder tails
- Electro-Polished Selective 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on all solder tails
- Electro-Polished Selective 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on all solder tails

**QTH/QSH @ 5 mm Mated Stack Height**
Rating based on Samtec reference channel. For full SI performance data visit Samtec.com or contact SIG@samtec.com

**HIGH-SPEED CHANNEL PERFORMANCE**

**QTH = PINS PER ROW**
**NO. OF PAIRS**

<table>
<thead>
<tr>
<th>QSH</th>
<th>Pins Per Row</th>
<th>Plating Option</th>
<th>Type</th>
<th>Other Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>–030, –060, –090</td>
<td>(20 pins per bank = –D)</td>
<td>–F = Gold Flash on Signal Pins and Ground Plane, Matte Tin on tails</td>
<td>–L = 10 µ” (0.25 µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails</td>
<td>–K = 8.25 mm (0.325”) DIA Polyimide Film Pick &amp; Place Pad</td>
</tr>
<tr>
<td>–020, –040, –060</td>
<td>(20 pairs per bank = –D–DP)</td>
<td>–L = 10 µ” (0.25 µm) Gold on Signal Pins and Ground Plane, Matte Tin on tails</td>
<td>–C* = Electro-Polished Selective 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on Signal Pins in contact area, 10 µ” (0.25 µm) min Au over 50 µ” (1.27 µm) Ni on Ground Plane in contact area, Matte Tin over 50 µ” (1.27 µm) min Ni on all solder tails</td>
<td>–C* = Electro-Polished Selective 50 µ” (1.27 µm) min Au over 50 µ” (1.27 µm) Ni on all solder tails</td>
</tr>
</tbody>
</table>

**Note:** –C* Plating passes 10 year MFG testing

Due to technical progress, all designs, specifications and components are subject to change without notice.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.