SPEEDMASTER™
High-speed 10G connection system for Glenair SuperNine, Mighty Mouse, and HiPer-D connectors

SpeedMaster™ is a dedicated contact module and insert package for SuperNine®, Mighty Mouse, and HiPer-D connectors. Optimized for high-speed Cat 6A Ethernet, the SpeedMaster™ 10G system offers industry-leading NEXT, return loss and insertion loss performance.

- Utilizes aerospace industry standard #22D contacts, tools, and widely available Ethernet flight cable
- Significant weight reduction compared to Quadrax solutions (reduces cable requirement by half)
SpeedMaster™ High-Speed 10G Connection System
for Glenair SuperNine, Mighty Mouse, and HiPer-D connectors

**SPEEDMASTER 10G NEXT-GENERATION HIGH-SPEED CONNECTION SYSTEM**

**The SpeedMaster Difference**
SpeedMaster, the high-speed multi-contact solution for the Mighty Mouse, HiPer-D and SuperNine 38999 type family of connectors. Each SpeedMaster module consists of 4 pairs of pins or sockets incorporating industry standard size #22D contacts to provide 10G performance. Each module is individually shielded within the shell, and retained in place with a threaded ferrule. Additionally, module cavities are genderless allowing pin or socket interface for plugs or receptacles. Glenair offers these SpeedMaster contacts in 3 connector packages, including our small form factor Mighty Mouse Series 824 Locking Push/Pull, HiPer-D (M24308) hi-performance rectangular D-Sub, and our 38999 type “better than QPL” connectors allowing you to adapt and fit your application needs. These features result in a two fold benefit. An easily removable and repairable, shielded high performance contact packaged within robust industry standard connectors, helping to reduce network downtime and providing a connectorized solution to improve the overall network function and performance. Meet the demand for the next generation Cat 6A networks with SpeedMaster, the next generation contact system from Glenair.

**Retention ferrule with wrench interface and rear grommet (9mm)**

**Industry standard size #22D contacts**

**Genderless cavities allow for plug or receptacle connectors with pin or socket interface each with 8 contacts per module**

**Proven performance from circular and rectangular shell styles**

SpeedMaster 10G modular inserts are available for Series 23 SuperNine – 38999, Series 80 Mighty Mouse – Locking Push / Pull and Series 28 HiPer-D – M24308 rectangular D-Sub connectors

**The SpeedMaster 10G is optimized for high-speed Ethernet performance and incorporates standard M39029 #22D contacts isolated for superior NEXT, return loss and insertion loss performance**

<table>
<thead>
<tr>
<th>Cable Size</th>
<th>Cable Ø</th>
<th>Cable Size</th>
<th>Cable Ø</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>.280 (7.11)</td>
<td>5</td>
<td>.240 (6.10)</td>
</tr>
<tr>
<td>2</td>
<td>.270 (6.86)</td>
<td>6</td>
<td>.230 (5.84)</td>
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<tr>
<td>3</td>
<td>.260 (6.60)</td>
<td>7</td>
<td>.220 (5.59)</td>
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<td>4</td>
<td>.250 (6.35)</td>
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**SpeedMaster™ High-Speed Cable**

<table>
<thead>
<tr>
<th>Cable P/N</th>
<th>Cabel Category</th>
<th>Cable Construction</th>
<th>Wire Gage</th>
<th>Cable Dia.</th>
<th>Assembly Instruction</th>
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<tbody>
<tr>
<td>963-003-24</td>
<td>Cat 6A</td>
<td>SF/UTP</td>
<td>24</td>
<td>.280</td>
<td>A85082</td>
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<td>Cat 6A</td>
<td>SF/UTP</td>
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<td>.220</td>
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<td>963-037</td>
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<td>CAT 6A</td>
<td>S/FTP</td>
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<td>CAT 6A</td>
<td>S/FTP</td>
<td>26</td>
<td>.220</td>
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HIGH-SPEED
SpeedMaster™
Pre-wired 10G high-speed contacts
858-102 10GBase-T Cat 6A Contacts

Pre-wired SpeedMaster assemblies are 100% tested and ready for use. Compatible with Glenair Series 80 Mighty Mouse, Series 28 HiPer-D or Series 23 SuperNine connectors with keyed size #8 cavities, these assemblies are available with three termination options: single-ended, SpeedMaster contacts on both ends, or with an RJ45 plug on one end. Contacts are wired per the guidelines of ARINC 664 Part 2 Appendix N.

Connector Compatibility
- Glenair 824-009 and -010 Mighty Mouse
- Glenair 280-098 thru -103 HiPer-D
- Glenair 233-219, 233-220 SuperNine

Contact Positions
- Mating Face of Pin Contacts
- Mating Face of Socket Contacts

Part Number Development

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>8575-0001</th>
<th>-A</th>
<th>C</th>
<th>-1</th>
<th>-12</th>
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<td>Product</td>
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<tr>
<td>End A Contact Type</td>
<td>-A = 858-101 SpeedMaster pin</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>-B = 858-100 SpeedMaster socket</td>
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<td></td>
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</tr>
<tr>
<td>End B Contact/Connector</td>
<td>A = SpeedMaster pin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B = SpeedMaster socket</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>C = RJ45 plug</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>N = No connector</td>
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<tr>
<td>Cable Option</td>
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<td>-4 = 963-037</td>
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<tr>
<td>Length</td>
<td>Overall length in inches</td>
<td></td>
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</tbody>
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Specifications
- Operating temperature: -65°C to +200°C (SpeedMaster) or -40°C to +85°C (RJ45); cable dependent
- Meets EIA/TIA 568C.2-10 and IEC 60603-7-51 Cat 6A 500 MHz
- Characteristic Impedance: 100 ohms
- Insulation resistance: 200 megohms min.
- Durability: 500 mating cycles
HIGH-SPEED

SpeedMaster™
Available connector packaging

MIGHTY MOUSE 824 LOCKING PUSH-PULL

- Quick-disconnect coupling
- Audible, visual, and tactile full-mate indicators

Available connector configurations
- 824-009-06 Plug
- 824-010-01 In-line Receptacle
- 824-010-00 Front Panel Mount, Jam Nut Receptacle
- 824-010-07 Rear Panel Mount, Jam Nut Receptacle

Single Contact Module Insert Arrangement
Ideally suited for CAT5E or CAT6A Ethernet applications

HIPER-D M24308 INTERMOUNTABLE

- Advanced temperature, vibration and EMC/electrical performance
- Rugged machined one-piece shell

Series 28 In-Line Connectors
- 280-101M Plug
- 280-098F Receptacle

Series 28 Rear Panel Mount Connectors
- 280-102M Plug
- 280-099F Receptacle

Series 28 Float Mount Connectors
- 280-103M Plug
- 280-100F Receptacle

<table>
<thead>
<tr>
<th>SpeedMaster HiPer-D Insert Arrangements</th>
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<tbody>
<tr>
<td>![Insert Arrangement Diagram]</td>
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</tbody>
</table>

SUPERNINE D38999 SERIES III TYPE

- Advanced performance, “better than QPL” D38999 Series III type bodies and shells
- Optimized for SpeedMaster contact modules

RECOMMENDED BACKSHELL
377NS119 Aluminum Alloy Backshell

233-219 SpeedMaster SuperNine connectors
- G6 = Plug 38999/26
- 05 = Receptacle, in-line
- 07 = Receptacle, jam-nut 38999/24
- 00 = Receptacle, wall mount 38999/20

- CM = Receptacle, wall mount, metric clinch nuts
- CS = Receptacle, wall mount, standard clinch nuts
- D0 = Receptacle, wall mount, thru holes
- HM = Receptacle, wall mount, metric helicoils
- HS = Receptacle, wall mount, standard helicoils
- T0 = Receptacle, wall mount, tapped holes

233-220 SpeedMaster SuperNine PC Tail connectors
- 00 = Wall mount receptacle with slotted holes, standard standoff threads
- 10 = Wall mount receptacle with slotted holes, metric standoff threads
- CM = Wall mount receptacle with metric clinch nuts
- CS = Wall mount receptacle with standard clinch nuts
- HM = Wall mount receptacle with metric helicoils
- HS = Wall mount receptacle with standard helicoils
- 07 = Jam-nut receptacle

<table>
<thead>
<tr>
<th>SpeedMaster SuperNine Insert Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Insert Arrangements Diagram]</td>
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</tbody>
</table>

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Dimensions in Inches (millimeters) are subject to change without notice.