# CSM to Mezz Card Cables

--- Specification ---

T. Fries, J. Oliver

Updated - 19 Nov 2003

<table>
<thead>
<tr>
<th>Spec</th>
<th>Comment</th>
<th>Ref page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Amp system 50 P/N 111196-9</td>
<td>2</td>
</tr>
<tr>
<td>Cable type</td>
<td>Amphenol Spectra-Strip, 40 conductor, 30 AWG stranded</td>
<td>3,4</td>
</tr>
<tr>
<td>Drain wire</td>
<td>18-24 AWG with #6 Spade lug one end only, 5 cm beyond connector</td>
<td>5,6,7,8</td>
</tr>
<tr>
<td>Strain relief</td>
<td>5 cm heat shrink both ends</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>CSM/Mezz-Length (cm)-Orientation (e.g. CSM/Mezz-133-A)</td>
<td></td>
</tr>
<tr>
<td>Cable manufacturer</td>
<td>Spectra-Strip Cable Products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>720 Sherman Avenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hamden, Ct 06514 USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tel: 800.846.6400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contact: Bob Wiggins</td>
<td></td>
</tr>
<tr>
<td>Orientations</td>
<td>Types A,B,C,D</td>
<td>5,6,7,8</td>
</tr>
<tr>
<td>P/N 168-3099-994</td>
<td>33 cm between flats, green outer jacket</td>
<td></td>
</tr>
<tr>
<td>P/N 168-3099-997</td>
<td>50 cm between flats, blue outer jacket</td>
<td></td>
</tr>
<tr>
<td>Cable assembler</td>
<td>Manufacturing Resource Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>930 Washington St.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norwood, Massachusetts 02060 USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tel: 781.440.9700</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contact: Joe Prior or Jim Vaughn</td>
<td></td>
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</tbody>
</table>
**PHYSICAL**
- Conductors: 30 AWG 7/38 Tinned Copper
- Insulation: .005" HF-FR Polyolefin
- Laminate: Polyester/Adhesive
- Color Code: 1st Pair Red/White followed by Blue/White and Repeat
- Drain: (2) 28 AWG 7/36 Tinned Copper
- Shield: .001" Aluminum/Polyester
- Braid: Tinned Copper, 85% Min Coverage
- Jacket: .030" Blue HF-FR Polyolefin
- Temperature: 80°C

**ELECTRICAL**
- Impedance: 112 ohms
- Capacitance: 20.6 pF/ft *
- Current Rating: .75 A @ 10°C Rise Above Ambient
- Insulation Res: 10" ohms – 10 ft minimum

* Above Values Estimated Differentially

**APPROVALS**
- UL Pending

**DIMENSIONAL SPECIFICATIONS**
- Center - Center of Flats:
  - 900 ± 17.70 mm (19.69 ± 0.50") and Repeat.
  - 1000 ± 12.70 mm (39.37 ± 0.50") and Repeat.

**Drawing Information**
- Drawing No.: 168-3099-997/996
- Title: Halogen-Free Loose Pair Round Twist 'N Flat Cable
- AMPHENOL SPECTRASTRIP
- 720 SHERMAN AVE TEL (203) 281-3200
- HAMDEN CT 06514 FAX (203) 281-5872
- Rev 3
- Sheet 1 of 2
<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>STANDARD</th>
<th>REQUIREMENTS</th>
<th>CABLE INSULATION/LAMINATE/JACKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame and Fire Propagation, Smoke Density:</td>
<td>IEC 332-1, ASTM E662, IEC 1034-1 AND -2, ATS 1000.001</td>
<td>Pass, $\alpha &lt; 250$ flaming and non-flaming modes</td>
<td>Pass, flaming – 16/47, non-flaming – 0/25</td>
</tr>
</tbody>
</table>
40 conductor shielded, round, 30 Gauge Spectra-Strip, length = 0.5 m, 1.0 m, 1.5 m, ....

**Note on labeling**
- US cable assembler, MRG, will place two labels
  - Cable orientation code and length (cm) at mezz card end
  - Part number and date code someplace on cable
- On-chamber cable installers should apply standard numbering labels corresponding to chamber slot number to *both ends of the cable.*
40 conductor shielded, round, 
30 Gauge Spectra-Strip, length 
= 0.5 m, 1.0 m, 1.5 m, 

Orientation - B

Ground tab

Mezz end

CSM end

Tab “out”
Connector “up”

Note on labeling

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  - Part number and date code someplace on cable
- On-chamber cable installers should apply standard numbering labels 
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Orientation - C

Note on labeling
- US cable assembler, MRG, will place two labels
  - Cable orientation code and length (cm) at mezz card end
  - Part number and date code someplace on cable
- On-chamber cable installers should apply standard numbering labels corresponding to chamber slot number to both ends of the cable.
40 conductor shielded, round, 30 Gauge Spectra-Strip, length = 0.5 m, 1.0 m, 1.5 m, ….

**Note on labeling**
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Note:
- Designations A, B, C, & D correspond to cable “types” or “orientations”
- Chamber shown with
  - mezz card connectors “down” (mezz card screen printing right-side-up)
  - CSM mother board power connector to left
  - ELMB to left
Note:
- Designations A, B, C, & D correspond to cable “types” or “orientations”
- Chamber shown with
  - mezz card connectors “up” (mezz card screen printing upsidedown)
  - CSM mother board power connector to right
  - ELMB to left