**Hyperflex 5**

**R E A C T I V E  B R A I D:**
88% SCREENING - 120 wires of copper made with 24 spool machines (instead of 16). Thanks to 50% more crossovers, grants exceptional Screening Attenuation (SA) and reacts to twisting and bending like a spring.

**FOIL:** 100% SCREENING
First screen made of copper with an applied PE-layer: prevents cracking due to short radius bends.

**D I E L E C T R I C:**
High pressure physical injection foamed polyethylene

**I N N E R  C O N D U C T O R:**
19x0.29mm copper wires - overall Ø 1.4 mm ± 0.15 (19x0.011 inches - overall Ø 0.055 inches ± 0.0059)

**E L E C T R I C A L  D A T A**
- Impedence @200Mhz: 50 Ohm ± 3
- Minimum bending radius:
  - up to 15 bends: 50mm (1.97 in)
  - single bend (choke): 25mm (0.98 in)
- Temperature: -45°C to +70°C (-49°F to +158°F)
- Capacitance: 74 pF/m ± 2 (22.6 pF/ft ± 2)
- Velocity ratio: 87%
- Screening Efficiency (SA): 100-2000 MHz >105 dB
  - SRL: 0.3-600 MHz >28 dB
  - 600-1200 MHz >25 dB
  - 1200-2000 MHz >22 dB

**POWER HANDLING**
- 1.8 MHz: 1274 W
- 3.5 MHz: 987 W
- 7 MHz: 809 W
- 10 MHz: 717 W
- 14 MHz: 620 W
- 21 MHz: 518 W
- 28 MHz: 453 W
- 50 MHz: 338 W
- 100 MHz: 235 W
- 144 MHz: 195 W
- 200 MHz: 165 W
- 400 MHz: 115 W
- 430 MHz: 111 W
- 800 MHz: 80 W
- 1000 MHz: 71 W
- 1296 MHz: 62 W
- 2400 MHz: 44 W
- 3000 MHz: 39 W
- 4000 MHz: 33 W
- 5000 MHz: 29 W
- 6000 MHz: 26 W

**ATTENUATION (20°C/68°F)**

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>dB/100m</th>
<th>dB/100ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8 MHz</td>
<td>1.4</td>
<td>0.4</td>
</tr>
<tr>
<td>3.5 MHz</td>
<td>1.9</td>
<td>0.5</td>
</tr>
<tr>
<td>7 MHz</td>
<td>2.3</td>
<td>0.7</td>
</tr>
<tr>
<td>10 MHz</td>
<td>2.6</td>
<td>0.8</td>
</tr>
<tr>
<td>14 MHz</td>
<td>3.0</td>
<td>0.9</td>
</tr>
<tr>
<td>21 MHz</td>
<td>3.6</td>
<td>1.1</td>
</tr>
<tr>
<td>28 MHz</td>
<td>4.1</td>
<td>1.2</td>
</tr>
<tr>
<td>50 MHz</td>
<td>5.5</td>
<td>1.7</td>
</tr>
<tr>
<td>100 MHz</td>
<td>8.0</td>
<td>2.4</td>
</tr>
<tr>
<td>144 MHz</td>
<td>9.6</td>
<td>2.9</td>
</tr>
<tr>
<td>200 MHz</td>
<td>11.4</td>
<td>3.4</td>
</tr>
<tr>
<td>240 MHz</td>
<td>16.3</td>
<td>4.9</td>
</tr>
<tr>
<td>300 MHz</td>
<td>17.0</td>
<td>5.1</td>
</tr>
<tr>
<td>500 MHz</td>
<td>23.4</td>
<td>7.1</td>
</tr>
<tr>
<td>1000 MHz</td>
<td>26.4</td>
<td>8.0</td>
</tr>
<tr>
<td>1296 MHz</td>
<td>30.5</td>
<td>9.3</td>
</tr>
<tr>
<td>2400 MHz</td>
<td>42.5</td>
<td>12.9</td>
</tr>
<tr>
<td>3000 MHz</td>
<td>48.1</td>
<td>14.6</td>
</tr>
<tr>
<td>4000 MHz</td>
<td>56.9</td>
<td>17.3</td>
</tr>
<tr>
<td>5000 MHz</td>
<td>65.2</td>
<td>19.9</td>
</tr>
<tr>
<td>6000 MHz</td>
<td>72.9</td>
<td>22.2</td>
</tr>
</tbody>
</table>

**J A C K E T:**
UV-resistant black PVC overall Ø 5.4mm ± 0.15 (0.212 inches ± 0.0059)

**Connecting Options:**
- UHF (PL), N, BNC, SMA, TNC

Our products are manufactured in compliance with:
- CEI 46-1 (construction parameters);
- EN 50117 (screening efficiency);
- CEI EN 50289 (SA test methods);
- R118 (ISO7622-1);
- IEC 60332-1-2 (cables with PVC and LSZH jacket);
- CPR305/11 (EN50575:2014 - DoP number: MP0097)
Given a power fed to the X value (any value expressed in Watts), the actual power output of the cable is shown in the table in the form of remaining percentage. (for example, if we use a cable such as M&P-HYPERFLEX 5, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 45,8 % of 1000). For maximum applicable power, see the Power Handling of the cable concerned. From these values, have already been deducted the SRL values, typical of each one of our models, for the respective frequencies.

REMEMBER: Make sure to match the line accurately!

### M&P-HYPERFLEX 5 / .212"

<table>
<thead>
<tr>
<th>Length (m)</th>
<th>Wave Length (MHz)</th>
<th>Frequencies / Frequentini</th>
</tr>
</thead>
<tbody>
<tr>
<td>85.71</td>
<td>3.5</td>
<td>166.66, 212, 2400, 3000, 6000</td>
</tr>
<tr>
<td>42.85</td>
<td>7</td>
<td>1252, 1210, 1072, 364, 100</td>
</tr>
<tr>
<td>21.42</td>
<td>14</td>
<td>96, 93, 89, 88, 72, 55, 30</td>
</tr>
<tr>
<td>10.71</td>
<td>28</td>
<td>95, 90, 86, 82, 78, 71, 61, 51</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>93, 87, 82, 72, 38, 27, 18, 9</td>
</tr>
<tr>
<td>2.08</td>
<td>144</td>
<td>89, 80, 71, 64, 57, 32, 18, 10</td>
</tr>
<tr>
<td>69 cm</td>
<td>430</td>
<td>82, 67, 55, 45, 37, 25, 14, 5</td>
</tr>
<tr>
<td>23.1 cm</td>
<td>1296</td>
<td>69, 48, 34, 16, 7, 3, 1</td>
</tr>
<tr>
<td>12.5 cm</td>
<td>2400</td>
<td>59, 39, 21, 12, 10, 7, 4, 1</td>
</tr>
<tr>
<td>10 cm</td>
<td>3000</td>
<td>55, 31, 17, 9, 7</td>
</tr>
<tr>
<td>7.5 cm</td>
<td>4000</td>
<td>48, 23, 10, 8, 4, 2, 1</td>
</tr>
<tr>
<td>6 cm</td>
<td>5000</td>
<td>40, 15, 9, 4, 2</td>
</tr>
<tr>
<td>5 cm</td>
<td>6000</td>
<td>33, 8, 7</td>
</tr>
</tbody>
</table>

### M&P-HYPERFLEX 5 / .212" Power Handling/Temperature (in Continuous Carrier)

<table>
<thead>
<tr>
<th>Wave Length (MHz)</th>
<th>Temperature C° / F°</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10 / 14</td>
<td>-18/ -4.4</td>
</tr>
<tr>
<td>-5 / 23</td>
<td>-12/ -15.8</td>
</tr>
<tr>
<td>0 / 32</td>
<td>0/ 86.8</td>
</tr>
<tr>
<td>10 / 50</td>
<td>17/ 127</td>
</tr>
<tr>
<td>20 / 68</td>
<td>29/ 1086</td>
</tr>
<tr>
<td>30 / 86</td>
<td>41/ 1896</td>
</tr>
<tr>
<td>40 / 104</td>
<td>53/ 2992</td>
</tr>
<tr>
<td>50 / 122</td>
<td>65/ 3902</td>
</tr>
<tr>
<td>60 / 140</td>
<td>77/ 4800</td>
</tr>
<tr>
<td>70 / 158</td>
<td>89/ 5700</td>
</tr>
</tbody>
</table>

**WATT**
**Connector assembly**

**Connector “N” type**

1. Make a circular cut on the black PVC outer jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

2. After having made the first cut, as shown in picture 2, rotate the cable 180 degrees and make a second cut in the same way, in order to facilitate the introduction of component D (pic. 4 and 5).

3. Insert component D after having opened the braid as shown in the picture. Push component D between the foil and the braid until it stops against the red PE jacket.

4. Flatten the wires as shown in the picture and cut the excess.

5. Cut and remove the tape and dielectric for a length as shown in the picture (in mm).

6. Insert one of the two teflon discs and subsequently the central pin. Solder the pin to the inner conductor, inserting tin in the provided hole. Avoid heating the pin for a too long time in order not to damage with excessive heat the cable dielectric. (which is not made in teflon!)

7. Insert the second teflon disc as shown in the picture.

8. Insert the connector and fasten accurately until the o-ring present in component A, will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.

**Connector “UHF/PL” type**

1. Insert in the cable components A, B, C and immediately after, make a circular cut on the jacket at the indicated length shown in the caliber. (in mm). Subsequently remove it.

2. Insert component D after having opened the braid as shown in the picture.

3. Push component D between the foil and the braid until it stops against the jacket.

4. Flatten the wires as shown in the picture and cut the excess.

5. Cut and remove the tape and dielectric for a length as shown in the picture.

6. Insert the connector and solder it with tin to the inner conductor (see picture above). Avoid heating for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)

7. Fasten together the connector and component A, until it will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.

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CONNECTORS for M&P-HYPERFLEX 5 / .212"

- **N solder male**
- **UHF/PL solder male**
- **BNC solder male**
- **SMA crimp male**
- **TNC crimp male**

- NO braid soldering needed!
- Humidity proof compression design!
- Perfect match with M&P PRO cables! 105dB (SA)
- Dramatic suppression of the background noise!