Technical Data Sheet

FAKRA - HF
RIGHT ANGLE PLUG FOR PCB

59S20M-40MT5-Y

All dimensions are in mm; tolerances according to ISO 2768 m-H
Y = Part number has to be accomplished by codification

Interface
According to ISO 20860-1

Documents
PCB layout MB_602
Tape & reel packaging VG331.21000

Material and plating

<table>
<thead>
<tr>
<th>Connector parts</th>
<th>Material</th>
<th>Plating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center contact</td>
<td>Brass</td>
<td>AuroDur®, gold plated</td>
</tr>
<tr>
<td>Outer contact</td>
<td>Zinc alloy</td>
<td>Tin, 2-6 µm</td>
</tr>
<tr>
<td>Dielectric</td>
<td>HTN</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>HTN</td>
<td></td>
</tr>
</tbody>
</table>

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### Electrical data

- Impedance: 50 Ω
- Frequency: DC to 6 GHz
- Return loss: ≥ 21dB (DC to 3GHz)
- Insertion loss: ≤ 0.1 x 10^(-f(GHz)) dB
- Insulation resistance: ≥ 1x10^3 MΩ
- Center contact resistance: ≤ 5 mΩ
- Outer contact resistance: ≤ 5 mΩ
- Test voltage: 750 V rms
- Working voltage: 335 V rms
- Power current: ≤ 1 A DC

(Connector only, VSWR in application depends decisive on PCB layout)

### Mechanical data

- Mating cycles: ≥ 25
- Engagement force: ≤ 50 N
- Disengagement force: ≥ 2 N
- Retention force plastic housing: ≥ 110 N
- Coding efficiency: ≥ 40 N

### Environmental data

- Temperature range: -40°C to +105°C
- Thermal shock: ISO 20860-2 clause 9.2
- Temperature and humidity: ISO 20860-2 clause 9.3
- Vibration and mechanical shock: ISO 20860-2 clause 9.1
- Dry heat: ISO 20860-2 clause 9.4
- Soldering profile: acc. to IEC 60068-2-58 group3 (250°C / 30s)
- RoHS: compliant

### Tooling

N/A

### Packing

- Standard: 210 pcs in tape & reel
- Weight: ~ 7.6 g/pce
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Coding

<table>
<thead>
<tr>
<th>Coding</th>
<th>Color</th>
<th>RAL</th>
<th>Part-Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>black</td>
<td>sim. 9005</td>
<td>59S20M-40MT5-A</td>
</tr>
<tr>
<td>B</td>
<td>white</td>
<td>sim. 9001</td>
<td>59S20M-40MT5-B</td>
</tr>
<tr>
<td>C</td>
<td>blue</td>
<td>sim. 5005</td>
<td>59S20M-40MT5-C</td>
</tr>
<tr>
<td>D</td>
<td>bordeauxviolet</td>
<td>sim. 4004</td>
<td>59S20M-40MT5-D</td>
</tr>
<tr>
<td>E</td>
<td>green</td>
<td>sim. 6002</td>
<td>59S20M-40MT5-E</td>
</tr>
<tr>
<td>F</td>
<td>brown</td>
<td>sim. 8011</td>
<td>59S20M-40MT5-F</td>
</tr>
<tr>
<td>G</td>
<td>grey</td>
<td>sim. 7031</td>
<td>59S20M-40MT5-G</td>
</tr>
<tr>
<td>H</td>
<td>violet</td>
<td>sim. 4003</td>
<td>59S20M-40MT5-H</td>
</tr>
<tr>
<td>I</td>
<td>beige</td>
<td>sim. 1001</td>
<td>59S20M-40MT5-I</td>
</tr>
<tr>
<td>K</td>
<td>curry</td>
<td>sim. 1027</td>
<td>59S20M-40MT5-K</td>
</tr>
<tr>
<td>L</td>
<td>carmine red</td>
<td>sim. 3002</td>
<td>59S20M-40MT5-L</td>
</tr>
<tr>
<td>M</td>
<td>pastel orange</td>
<td>sim. 2003</td>
<td>59S20M-40MT5-M</td>
</tr>
<tr>
<td>N</td>
<td>pastel green</td>
<td>sim. 6019</td>
<td>59S20M-40MT5-N</td>
</tr>
<tr>
<td>Z</td>
<td>waterblue</td>
<td>sim. 5021</td>
<td>59S20M-40MT5-Z</td>
</tr>
</tbody>
</table>

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

C. Düh
06.02.2017

C. Düh
02.03.17

100

B. Döring
02.03.17

Draft Date Approved Date

Preliminary

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