Technical Data Sheet

Cable assembly
RPC-1.85 Jack / Plug – RTK 092-70 – VA Armour

LU5-107-XXX

Available variants

<table>
<thead>
<tr>
<th>Type</th>
<th>Insertion loss at max. Frequency</th>
<th>Weight (g) / pce</th>
</tr>
</thead>
<tbody>
<tr>
<td>LU5-107-XXX</td>
<td>(\leq 0.00639 , \text{dB/mm} \times A , \text{mm} + 0.90 , \text{dB})</td>
<td>(0.2 , \text{g/mm} \times A , \text{mm} + 190 , \text{g})</td>
</tr>
</tbody>
</table>

XXX - length in mm = A
- Standard lengths are 600, 800 and 1000mm. The smallest possible length is 400mm. -

Note: max. Insertion Loss:
First constant = Cable attenuation in dB /mm; Second Constant = Connector left and Connector right + auxiliary Adaptor

Weight:
First constant = Cable- and Armour- weight per mm; Second Constant = Connector left and Connector right weight per pce

Assembly parts

Connector left
RPC-1.85 ruggedized jack 08KR123-2U5S3
Connector right
RPC-1.85 plug 08S123-2U5S3
Cable
RTK 092-70
Armour
Metal tubing with fixed bending rate and protection braid

Electrical data

Impedance 50 Ω
Frequency DC to 70 GHz
Return loss\(^1\)
\(\geq 26 \, \text{dB, DC to 4 GHz}\)
\(\geq 22 \, \text{dB, 4 GHz to 20 GHz}\)
\(\geq 15 \, \text{dB, 20 GHz to 50 GHz}\)
\(\geq 14 \, \text{dB, 50 GHz to 70 GHz}\)
Insertion loss\(^1\)
see table “Available variants”
RF-leakage \(\geq 100 \, \text{dB up to 1 GHz}\)

\(^1\) Return Loss and Insertion Loss includes the measurement adaptor
## Technical Data Sheet

### Cable assembly
RPC-1.85 Jack / Plug – RTK 092-70 – VA Armour

### LU5-107-XXX

#### Stability data

**Insertion loss stability:**
- **After 90° bending**
  - ≤ 0.03 dB, DC to 4 GHz
  - ≤ 0.10 dB, 4 GHz to 20 GHz
  - ≤ 0.20 dB, 20 GHz to 50 GHz
  - ≤ 0.30 dB, 50 GHz to 70 GHz
  - ≤ 1.0°, DC to 4 GHz
  - ≤ 3.0°, 4 GHz to 20 GHz
  - ≤ 7.0°, 20 GHz to 70 GHz

- **Straight after 3x90° bending**
  - ≤ 1.0°, DC to 4 GHz
  - ≤ 2.0°, 4 GHz to 20 GHz
  - ≤ 4.0°, 20 GHz to 70 GHz

**Return loss stability:**
- **After 90° bending**
  - ≥ 45 dB, DC to 20 GHz
  - ≥ 35 dB, 20 GHz to 50 GHz
  - ≥ 30 dB, 50 GHz to 70 GHz

#### Individual testing and documentation:
Stability data is tested according to the specification. Measurement plot with all 4 S-Parameters (S11; S22; S21; S12) and the care and handling instruction are included with the cable assembly. Auxiliary adaptors used are mentioned in the commentary field.

#### Mechanical data

Minimum bend radius: 60 mm

#### Environmental data

**Operating temperature range**
- +20 °C to +26 °C

**Rated temperature range of use**
- 0 °C to +50 °C

**Storage temperature range**
- -40 °C to +85 °C

**RoHS compliant**

2 Temperature range over which these specification are valid.

3 This range is underneath and above the operating temperature range, within the cable assembly is fully functional and could be used without damage.

#### Recommended accessories

- Wooden case with foam inlay

  VA_CASE-001

  4 Supports two assemblies, for length 600 mm available only.

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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.

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