



All dimensions are in mm; tolerances:  $\pm 3\text{mm}$  for  $A \leq 300\text{ mm}$ ;  $\pm 1\%$  for  $A > 300\text{ mm}$

**Available variants**

Type	Insertion loss at max. Frequency	Weight (g) / pce
LU5-106-XXX	$\leq 0.00639\text{ dB/mm} * A\text{ mm} + 0.90\text{ dB}$	$0.2\text{ g/mm} * A\text{ mm} + 188.5\text{ g}$

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 jack	08K123-2U5S3
Cable	RTK 092-70	
Armour	Metal tubing with fixed bending rate and protection braid	

**Electrical data**

Impedance	50 $\Omega$
Frequency	DC to 70 GHz
Return loss <sup>1</sup>	$\geq 26\text{ dB}$ , 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 <sup>1</sup>	see table “Available variants”
RF-leakage	$\geq 100\text{ dB}$ up to 1 GHz

<sup>1</sup> Return Loss and Insertion Loss includes the measurement adaptor

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RF\_35/09;14/6.2

**Cable assembly**

RPC-1.85 Jack / Jack – RTK 092-70 – VA Armour

**LU5-106-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<sup>2</sup> +20 °C to +26 °C  
 Rated temperature range of use<sup>3</sup> 0 °C to +50 °C  
 Storage temperature range -40 °C to +85 °C  
 RoHS compliant

<sup>2</sup> Temperature range over which these specification are valid.

<sup>3</sup> 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<sup>4</sup> VA\_CASE-001

<sup>4</sup> Supports two assemblies, for length 600 mm available only.



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.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
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