



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 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

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 range² +20 °C to +26 °C
 Rated temperature range of use³ 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 inlay⁴ VA_CASE-001

⁴ 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
Martin Moder	06.02.18	Roland Neuhauser	15.01.20	d00	20-0086	Roland Neuhauser	14.01.20