



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	max. Insertion loss at 40 GHz	Weight (g) / pce
LU1-004-XXX	$\leq 0.00285\text{ dB/mm} * A\text{ mm} + 0.6\text{ dB}$	$0.216\text{ g/mm} * A\text{ mm} + 206\text{ g}$

XXX – length in mm = A

Note: max. Insertion Loss:
 First constant = Cable attenuation in dB / mm; Second Constant = Connector left and Connector right +needed 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-2.40 ruggedized jack	09KR123-2U1S3
Connector right	RPC-SL 40 GHz jack	P4K123-2U1S3
Cable	RTK 106	
Armour	Metal tubing with fixed bending rate and protection braid	

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RF_35/09.14/6.2

Technical Data Sheet

Rosenberger

Cable assembly

RPC-2.40 Jack / RPC-SL 40 GHz Jack – RTK 106
VA Armour

LU1-004-XXX

Electrical data

Impedance	50 Ω
Frequency	DC to 40 GHz
Return loss ¹	≥ 26 dB, DC to 4 GHz ≥ 17 dB, 4 GHz to 40 GHz
Insertion loss ¹	see table available variants
Phase deviation: After 90° bending	$\leq 1.3^\circ$, DC to 4 GHz $\leq 6.0^\circ$, 4 GHz to 40 GHz
Straight after 3x90° bending	$\leq 1.0^\circ$, DC to 4 GHz $\leq 4.0^\circ$, 4 GHz to 40 GHz
Amplitude stability	≤ 0.03 dB, DC to 4 GHz ≤ 0.08 dB, 4 GHz to 40 GHz
Return loss stability	≥ 45 dB, DC to 4 GHz ≥ 35 dB, 4 GHz to 40 GHz
RF-leakage	≥ 100 dB up to 1 GHz

Individual testing and documentation:

Phase deviation, Amplitude stability and Return Loss stability is testes according to the specification. Measurement plot with all 4 S-Parameters (S11; S22; S21; S12) is included with the cable assembly and on the backside the care and handling instruction is printed. Measurement adaptors used are mentioned in the commentary field.

¹ Return Loss and Insertion Loss includes the measurement adaptor

Mechanical data

Minimum bend radius:	60 mm
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Environmental data

Temperature range	-40°C to +85°C
RoHS	compliant

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
F. Reiner	30.05.16	M. Moder	08.06.16	g00	16-0803	K. Mitterer	08.06.16
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