



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
LU1-005-XXX	$\leq 0.00285\text{ dB/mm} * A\text{ mm} + 0.6\text{ dB}$	$0.216\text{ g/mm} * A\text{ mm} + 206.4\text{ g}$

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-2.92 ruggedized jack	02KR123-2U1S3
Connector right	RPC-2.92 plug	02S123-2U1S3
Cable	RTK 106	
Armour	Metal tubing with fixed bending rate and protection braid	

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG
RF_35/09.14/6.2

Technical Data Sheet				Rosenberger			
Cable assembly RPC-2.92 jack / plug – RTK 106 – VA Armour				LU1-005-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		≤ 1.3°, DC to 4 GHz					
		≤ 6.0°, 4 GHz to 40 GHz					
Straight after 3x90° bending		≤ 1.0 °, DC to 4 GHz					
		≤ 4.0°, 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 tested 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					
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
M. Moder	24.10.16	H. Babinger	10.11.16	g00	16-s332	S. Andorfer	10.11.16
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de				Tel. : +49 8684 18-0 Email : info@rosenberger.de			Page 2 / 2