

TL-8A

The test lead for component and equipment testing up to 8 GHz

Product description

TL-8A assemblies are designed for testing components or equipments up to 8 GHz with network analyser (NA). This economical assembly family is made with a PE foamed double screened cable and protected with an armouring using a moulded cable entry. The excellent electrical performance combined with a high mechanical endurance is ideal for use in test labs and in operations



Product features

- Impedance 50 Ω
- Applicable up to 8 GHz
- High mechanical endurance
- Excellent insertion and return loss
- High mating cycle
- N connector with quick-lock nut
- Excellent performance to price ratio
- Free of halogen

Recommended connectors

TL-8A	SMA, N
	Other connectors available on request.

Construction



Cable	Inner conductor ①	Dielectric ②	Outer conductor ③④	Jacket ⑤	Ruggedisation ⑥	Outer diameter
						mm
TL-8A	CuAg wire	SPE	CuAg braid	LSFH	stainless steel/PUR, blue	10.3

Technical data

Cable	Operating frequency	Velocity of propagation	Weight	Preferred bending radius	Temperature range
	GHz	%	g/m	mm	°C
TL-8A	8	82	225.0	100.0	-5 to +85

TL-8A - ... -51

Technical data

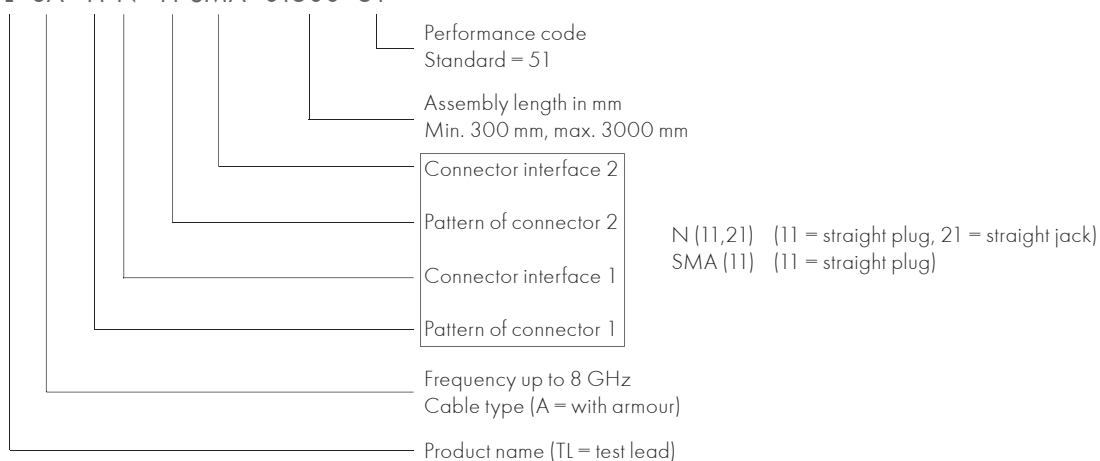
Key values						
Frequency	up to 8 GHz					
Return loss	1 GHz	2 GHz	4 GHz	6 GHz	8 GHz	
	up to 1 m	≤ -30 dB	≤ -27 dB	≤ -25 dB	≤ -23 dB	≤ -21 dB
	≥ 3.0 m	≤ -29 dB	≤ -26 dB	≤ -24 dB	≤ -22 dB	≤ -20 dB
Attenuation	1.24 dB/m at 8 GHz (typical)					
Waterproof	no gasket on interface					
Durability (matings)	> 3000 cycles					
Assembly length	min. 300 mm, max. 3000 mm					

Stock assemblies

Item no.	Type	Length mm	Frequency GHz	Max. insertion los at 25 °C	Max. VSWR	ROHS compliant
85006682	TL-8A-11N-11N-01500-51	1500	8	1.84	1.20	yes
85014643	TL-8A-11N-11SMA-01500-51	1500	8	1.84	1.18	yes
85021664	TL-8A-11N-21N-01500-51	1500	8	1.84	1.20	yes

Available in predetermined lengths	
TL-8A-11N-11N-xxxxx*-51	0.6 m up to 3.0 m
TL-8A-11N-11SMA-xxxxx*-51	
TL-8A-11SMA-11SMA-xxxxx*-51	
TL-8A-11N-21N-xxxxx-51	

TL - 8A - 11 N - 11 SMA - 01500 - 51



* Length of assembly in mm; length up to four meters on request.

TL-P

High flexible test lead for passive intermodulation (PIM) and return loss for frequency up to 4 GHz

Product description

HUBER+SUHNER TL-P assemblies are designed for indoor and outdoor applications where passive intermodulation (PIM) has to be tested.

This assembly family is based on a flexible cable which is optimised up to 4 GHz and protected with a steel armouring. The robust design is completed with a molded protection between connector and cable.

Product features

- Impedance 50 Ω
- Applicable up to 4 GHz
- Excellent PIM performance (≤ -160 dBc)
- High mechanical endurance
- Return Loss performance
- High mating cycle (> 2000)
- Highly flexible, rugged and reliable design
- Easy to handle for work in field
- Excellent performance to price ratio



Recommended connectors

TL-P	7/16, N, 4.3-10 (screw version)
	Other connectors available on request.

Construction



Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
TL-P	CuAg wire	PTFE	CuAg braid	FEP	stainless steel/PUR, blue	10.3

Technical data

Cable	Operating frequency GHz	Velocity of propagation %	Weight g/m	Preferred bending radius mm	Temperature range °C
TL-P	4	71	150.0	110.0	-15 to +65

Available connectors

Connector	Series, pattern	Code	Operating frequency GHz
7/16	straight cable plug	7/16	4
N	straight cable plug	N	4
4.3-10 (screwed)	straight cable plug	431X	4

TL-P - ... -51

Technical data

Key values				
Frequency	up to 4 GHz			
Return loss (up to length = 3.0 m)	1 GHz	2 GHz	3 GHz	4 GHz
	≤ -29 dB	≤ -26 dB	≤ -23 dB	≤ -20 dB
Power (at 40 °C, sea level)	≤ 560 W	≤ 390 W	≤ 320 W	≤ 280 W
Attenuation (at 25 °C)	0.75 dB/m at 2 GHz, 0.90 dB/m at 3 GHz			
PIM	≥ -117 dBm (160 dBc), tested according IEC 62037-2			
Waterproof	IP67			
Shielding effectiveness	> -120 dB			
Temperature range	-15 to +65 °C (operating) -10 to +55 °C (installation)			
Durability (matings)	> 2000 cycles			
Bending radius repeated	min. 50 mm (15 ×)			
Bending radius dynamic	≥ 110 mm (4.3 in), flex-life 10 000 bendings ± 90°			

Stock assemblies

Item no.	Type	Length mm	Frequency GHz	Max. insertion loss at 25 °C	Max. VSWR	Min. PIM dBc	ROHS compliant
85017448	TL-P-11716-11716-01500-51	1500	4	1.54	1.22	160	yes
85027254	TL-P-11716-11716-03000-51	3000	4	2.97	1.22	160	yes
85027450	TL-P-11716-11N-01500-51	1500	4	1.54	1.22	160	yes
85027453	TL-P-11716-11N-03000-51	3000	4	2.97	1.22	160	yes
85029279	TL-P-11431X-11716-01500-51	1500	4	1.54	1.22	160	yes
85029280	TL-P-11431X-11716-03000-51	3000	4	2.97	1.22	160	yes

TL - P - 11 431X - 11 716 - 01500 - 51

