

# HUBER+SUHNER® DATA SHEET RF ASSEMBLIES

## Test Lead: TL-8A



Rev.: A

### Description

Test Lead assembly for indoor applications (Test and Measurement) consisting of a high flexible PE foamed cable with armouring protection and 1x N male straight and 1x SMA male straight connectors for frequency up to 8 GHz.

**ID (Material/Item No.)**                    **85014643**  
**Description (Product)**                **TL-8A-11N-11SMA-01500-51**



### Product Configuration

Cable type	50Ω +/-1Ω, PE Foam double screen
Armour	Steel wire spring, steel braid, TPU blue, max. dia. 10.4 mm
Length of Assembly	1500 mm +/- 15 mm
Connector A	N straight male, knurl/hex. 19 mm, <i>Quick-Lock</i> Nut: steel; Body: steel; Center Contact: Cu-Be/Gold
Connector B	SMA straight male, hex. 8 mm, <i>Quick-Lock</i> Nut: steel; Body: steel; Center Contact: Cu-Be/Gold
Cable entry protection	PA, black

### Technical Data

#### Mechanical Data

Mating cycle *)	> 3000	Bending Radius repeated (min.)	55 mm (preferred: 100 mm)
Tensile Force (max.)	200 N	Connector interface N	IEC 61169-16 / MIL-STD-348A/304
		Connector interface SMA	IEC 61169-15 / MIL-STD-348A/310
Recom. mating torque **)	1.0 Nm	Weight	0.285 kg

#### Environmental Data

Operating Temperature	- 5°C to + 85°C
Storage Temperature	- 40°C to + 85°C
RoHS, REACH	compliant
Water protection	N and SMA connector without gasket on Interface

#### Electrical Data

Impedance	50 Ω +/-1 Ω	Operating Frequency	up to 8 GHz
Velocity of propagation	82 %	Insulation resistance	> 5 x 10 <sup>9</sup> MΩ
Capacitance	82 pF / m	Time delay	4.3 ns / m
Dielectric withstand voltage	500 V rms		

	Frequency	1 GHz	2 GHz	3 GHz	4 GHz	6 GHz	8 GHz
Return Loss	equal or better	- 32 dB	- 29 dB	- 26 dB	- 26 dB	- 25 dB	- 22 dB
Attenuation (assembly)	typically, at 25°C	0.54 dB	0.80 dB	1.00 dB	1.16 dB	1.50 dB	1.84 dB
Power handling	sea level, at 40°C	150 W	105 W	80 W	75 W	62 W	50 W
Screening effectiveness		> 80 dB	> 76 dB	> 70 dB	> 65 dB	> 60 dB	> 50 dB
Insertion Loss stability ***)		< 0.02 dB	< 0.03 dB	< 0.04 dB	< 0.05 dB	< 0.08 dB	< 0.10 dB
Phase stability ***)		+/- 1.5° el.	+/- 2.5° el.	+/- 4° el.	+/- 5° el.	+/- 8° el.	+/- 10° el.

### General Information

\*) Number of Mating                    With use of torque wrench at recommended value, clean interface after each 20 matings, mated with connector according IEC or MIL standard

\*\*) H+S torque wrench                    N connector:    H+S description: 74\_Z-0-0-321 // material/item number: 22651994  
SMA connector: H+S description: 74\_Z-0-0-21 // material/item number: 22543130

\*\*\*) Stability test                            One, 180° revers bends, 75 mm radius mandrel

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

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