# 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  $50\Omega$  +/-1 $\Omega$ , 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, *Quick-Lock*Nut: steel; Body: steel; Center Contact: Cu-Be/Gold

SMA straight male, hex. 8 mm, Quick-Lock

Nut: steel; Body: steel; Center Contact: Cu-Be/Gold

Cable entry protection PA, black

# **Technical Data**

Connector B

# **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

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  $\Omega$  +/-1  $\Omega$  Operating Frequency
 up to 8 GHz

 Velocity of propagation
 82 %
 Insulation resistance
 > 5 x 10³ MΩ

 Capacitance
 82 pF / m
 Time delay
 4.3 ns / m

 Dielectric withstand voltage
 500 V rms

1 GHz 2 GHz 3 GHz 4 GHz 6 GHz 8 GHz Frequency Return Loss equal or better - 32 dB - 29 dB - 26 dB - 26 dB - 25 dB - 22 dB 0.54 dB 1.00 dB 1.50 dB 1.84 dB Attenuation (assembly) typically, at 25°C 0.80 dB 1.16 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 \*\*\*) +/- 8° el. +/- 1.5° el. +/- 2.5° el. +/- 4° el. +/- 5° 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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