

SUCOTEST 18

ST18/Nm/Nm/48 inch cable assembly

Order no. 84003372

Electrical specifications

Impedance 50 Ohm
Operating frequency 18 GHz
Velocity of propagation 77 %

 $\begin{array}{lll} \text{Capacitance} & 87 \text{ pF/m} \left(26.5 \text{ pF/ft}\right) \\ \text{Time delay} & 4.3 \text{ ns/m} \left(1.31 \text{ ns/ft}\right) \\ \text{Insulation resistance} & > 5 \times 103 \text{ M}\Omega \\ \text{Dielectric withstand voltage} & 2500 \text{ V rms} \end{array}$



Electrical table		up to 2 GHz	2.01 to 4 GHz	4.01 to 6 GHz	6.01 to 12 GHz	12.01 to 18 GHz
Min. return loss	dB	30	28	25	21	19
Max. insertion loss at 25 °C	dB	0.61	0.88	1.09	1.57	1.95
Max. cw power at 25 °C, sea level	W	391	277	225	160	131
Max. insertion loss vs. shaking	dB	0.03	0.03	0.03	0.03	0.03
Max. insertion loss vs. bending	dB	0.03	0.04	0.04	0.05	0.05
Max. insertion loss vs. torsion	dB	0.03	0.04	0.04	0.05	0.05

General specifications

Assembly length

Cable diameter

Temperature range

Preferred bending radius

Connector retention force

Recommended rating torque

1219 mm (48 inch)

4.6 mm (0.181 inch)

-55 to + 105 °C

100 mm (4.0 inch)

> 200 N

0.68 to 1.13 Nm

ecommenaea rating torque 0.08 to 1.13 Nm (6.0 to 10.0 inch lbs)

Connector interface MIL-STD-348A/304

Weight 122 g

Materials and finishes

Cable jacket F
Cable dielectric LI
Taper sleeves S
Marking sleeve c
Connector contacts b
Connector insulation P

Connector body
Connector nur
Gasket

FEP, blue LDPTFE

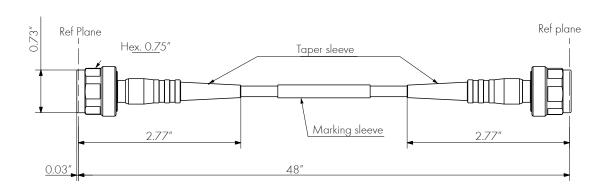
Santoprene/black crosslinked polyolefin/white beryllium-copper, gold plated

PTFE

stainless steel, passivated stainless steel, passivated

silicon rubber

Dimensions



Care and handling instructions for HUBER+SUHNER microwave cable assemblies

HUBER+SUHNER microwave cable assemblies of all types offer a long service life providing they are treated with the appropriate care and attention. Microwave cable assemblies are high precision system components and require proper handling in order to ensure that measuring performance values are maintained.

To achieve the maximum measuring performance the following guidelines should be followed:

- Assemblies should remain in their original packaging for delivery and storage. Storage temperature should be between +13 °C and +80 °C and the relative humidity should not exceed 85 %.
- 2. Carefully unpack assemblies before measurement. Avoid kinking cables when straightening from a coil or reel.
- Ensure that the surroundings are clean and free of dust, dirt and any other particles that could enter unsealed connector interfaces.
- Use protective caps to prevent contamination whenever connectors are unmated.
- 5. Where interfaces are contaminated, particles can be removed with dry, oil-free compressed air. Please use eye-protection. Interfaces can be cleaned with dry cotton swabs. Do not use hard hand-tools or solvents. Do not blow into interfaces or use normal compressed-air.

- 6. Choose the measurement routing using the largest bend radii possible. Small bend radii may affect electrical performance. Exceeding the specified limits during the measurement process could cause a permanent degradation.
- 7. Avoid twisting microwave cable assemblies. Torsion of this type of assembly can alter the relative diameters of cable layers and affects the electrical characteristics. Exceeding the limit of 10° per metre during measuring process could cause a permanent degradation.
- 8. Examine interfaces for damage and/or contamination before mating.
- 9. Discharge connectors before mating or ensure that they are connected to a suitable ground.
- 10. When mating connectors with a screwed interface always hold the connector bodies and turn only the coupling nut. This avoids twisting the cable and ensures minimum wear on the connector pins.
- 11. Do not exceed the torque specified.

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