

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: SUCOFORM\_47\_CU\_LSFH



### Description

SUCOFORM, the handformable microwave cable

### Technical Data

#### Construction

|                  | Material                     | Detail                  | Diameter |
|------------------|------------------------------|-------------------------|----------|
| Centre conductor | Copper, Silver plated        | Wire                    | 0.31 mm  |
| Dielectric       | PTFE                         |                         | 0.94 mm  |
| Outer conductor  | Copper, Tin plated           | Tin soaked braid, 100 % | 1.19 mm  |
| Jacket           | LSFH (modified polyethylene) | RAL 9005 - bk           | 1.7 mm   |

#### Electrical Data

|                                |                                              |
|--------------------------------|----------------------------------------------|
| Impedance                      | 50 $\Omega$ +/- 2                            |
| Max. operating frequency       | 40 GHz                                       |
| Capacitance                    | 95 pF/m                                      |
| Velocity of signal propagation | 71 %                                         |
| Signal delay                   | 4.7 ns/m                                     |
| Insulation resistance          | $\geq 1 \times 10^8 \text{ M}\Omega\text{m}$ |
| Min. screening effectiveness   | >100 dB (up to 18 GHz)                       |
| Max. operating voltage         | 1 kV <sub>rms</sub> (at sea level)           |
| Test voltage                   | 2 kV <sub>rms</sub> (50 Hz/1 min)            |

#### Mechanical Data

|                     |                |
|---------------------|----------------|
| Weight              | 0.75 kg/100 m  |
| Min. bending radius | static<br>4 mm |

#### Environmental Data

|                          |                   |
|--------------------------|-------------------|
| Temperature range        | -40 °C... + 85 °C |
| Installation temperature | -20 °C... + 60 °C |
| 2002/95/EC (RoHS)        | compliant         |

### Ordering Information

|          |                     |
|----------|---------------------|
| Order as | SUCOFORM_47_CU_LSFH |
|----------|---------------------|

### Additional Information

#### Remarks

(For details refer to the HUBER+SUHNER MICROWAVE CABLES AND ASSEMBLIES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

#### Suitable Connectors

|             |              |
|-------------|--------------|
| Cable group | crimped (Y2) |
|             | clamped —    |
|             | soldered —   |

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**Matrix**      **Attenuation** [ formula:  $(a \cdot f^{0.5} + b \cdot f)$  ] **and Power CW** [ formula:  $(p \cdot f / f^{0.5})$  ]

Coefficients:

|    |                  |    |                                           |                    |                                           |                           |                                           |
|----|------------------|----|-------------------------------------------|--------------------|-------------------------------------------|---------------------------|-------------------------------------------|
| a= | 1.117            | b= | 0.03891                                   | f <sub>max</sub> = | 40                                        | p <sub>at</sub><br>1GHz = | 11                                        |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | <b>Frequency</b> |    | <b>Nom. attenuation</b>                   |                    | <b>Nom. attenuation</b>                   |                           | <b>Max. CW power</b>                      |
|    | <b>(GHz)</b>     |    | <b>(dB / m)</b>                           |                    | <b>(dB / ft)</b>                          |                           | <b>(watt)</b>                             |
|    |                  |    | sea level<br>25° C ambient<br>temperature |                    | sea level<br>25° C ambient<br>temperature |                           | sea level<br>40° C ambient<br>temperature |
|    |                  |    |                                           |                    |                                           |                           |                                           |
|    | 2.0              |    | 1.66                                      |                    | 0.506                                     |                           | 8                                         |
|    | 4.0              |    | 2.39                                      |                    | 0.728                                     |                           | 6                                         |
|    | 6.0              |    | 2.97                                      |                    | 0.905                                     |                           | 4                                         |
|    | 8.0              |    | 3.47                                      |                    | 1.058                                     |                           | 4                                         |
|    | 10.0             |    | 3.92                                      |                    | 1.195                                     |                           | 3                                         |
|    | 12.0             |    | 4.34                                      |                    | 1.323                                     |                           | 3                                         |
|    | 14.0             |    | 4.72                                      |                    | 1.439                                     |                           | 3                                         |
|    | 16.0             |    | 5.09                                      |                    | 1.551                                     |                           | 3                                         |
|    | 18.0             |    | 5.44                                      |                    | 1.658                                     |                           | 3                                         |
|    | 20.0             |    | 5.77                                      |                    | 1.759                                     |                           | 2                                         |
|    | 22.0             |    | 6.10                                      |                    | 1.859                                     |                           | 2                                         |
|    | 24.0             |    | 6.41                                      |                    | 1.954                                     |                           | 2                                         |
|    | 26.0             |    | 6.71                                      |                    | 2.045                                     |                           | 2                                         |
|    | 28.0             |    | 7.00                                      |                    | 2.133                                     |                           | 2                                         |
|    | 30.0             |    | 7.29                                      |                    | 2.222                                     |                           | 2                                         |
|    | 32.0             |    | 7.56                                      |                    | 2.304                                     |                           | 2                                         |
|    | 34.0             |    | 7.84                                      |                    | 2.390                                     |                           | 2                                         |
|    | 36.0             |    | 8.10                                      |                    | 2.469                                     |                           | 2                                         |
|    | 38.0             |    | 8.36                                      |                    | 2.548                                     |                           | 2                                         |
|    | 40.0             |    | 8.62                                      |                    | 2.627                                     |                           | 2                                         |

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

#### WAIVER!

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



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