

## Flexible RF cable SUCOFORM\_47\_CU\_LSFH

### Description

Sucoform: Formstable, hand-formable alternatives to semi-rigid microwave cables

Non-magnetic, 50 Ohm, 40 GHz, 85°C, ø1.7 mm, LSFH jacket



### Technical Data

#### Construction

|                  | Material                       | Detail                 | Diameter |
|------------------|--------------------------------|------------------------|----------|
| Centre conductor | Copper, Silver plated          | Wire                   | 0.31 mm  |
| Dielectric       | PTFE (Polytetrafluoroethylene) |                        | 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 Ω +/- 2                           |
| Operating Frequency            | 40 GHz                               |
| Capacitance                    | 95 pF/m                              |
| Velocity of signal propagation | 71 %                                 |
| Signal delay                   | 4.7 ns/m                             |
| Insulation resistance          | ≥ 1 x 10 <sup>8</sup> MΩm            |
| 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 |
| 2011/65/EU (RoHS)        | compliant        |

### Additional Information

#### Ordering Information

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

#### Remarks

(For details refer to the HUBER+SUHRNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHRNER partner)

#### Suitable Connectors

|             |                  |
|-------------|------------------|
| Cable group | Y2 1 mm / 50 Ohm |
|-------------|------------------|

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

Coefficients:

a = 1.133

b = 0.0396

f<sub>max</sub> = 40

P at 1GHz = 11

| Frequency<br>(GHz) | Nom. attenuation<br>(dB / m)<br>sea level 25° C<br>ambient<br>temperature | Nom. attenuation<br>(dB / ft)<br>sea level 25° C<br>ambient<br>temperature | Max. CW power<br>(watt)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|
| 2,0                | 1,68                                                                      | 0,512                                                                      | 8                                                                    |
| 4,0                | 2,42                                                                      | 0,739                                                                      | 6                                                                    |
| 6,0                | 3,01                                                                      | 0,918                                                                      | 4                                                                    |
| 8,0                | 3,52                                                                      | 1,073                                                                      | 4                                                                    |
| 10,0               | 3,98                                                                      | 1,213                                                                      | 3                                                                    |
| 12,0               | 4,4                                                                       | 1,341                                                                      | 3                                                                    |
| 14,0               | 4,79                                                                      | 1,461                                                                      | 3                                                                    |
| 16,0               | 5,17                                                                      | 1,574                                                                      | 3                                                                    |
| 18,0               | 5,52                                                                      | 1,682                                                                      | 3                                                                    |
| 20,0               | 5,86                                                                      | 1,786                                                                      | 2                                                                    |
| 22,0               | 6,19                                                                      | 1,885                                                                      | 2                                                                    |
| 24,0               | 6,5                                                                       | 1,981                                                                      | 2                                                                    |
| 26,0               | 6,81                                                                      | 2,075                                                                      | 2                                                                    |
| 28,0               | 7,1                                                                       | 2,165                                                                      | 2                                                                    |
| 30,0               | 7,39                                                                      | 2,253                                                                      | 2                                                                    |
| 32,0               | 7,68                                                                      | 2,340                                                                      | 2                                                                    |
| 34,0               | 7,95                                                                      | 2,424                                                                      | 2                                                                    |
| 36,0               | 8,22                                                                      | 2,506                                                                      | 2                                                                    |
| 38,0               | 8,49                                                                      | 2,587                                                                      | 2                                                                    |
| 40,0               | 8,75                                                                      | 2,667                                                                      | 2                                                                    |