# Data Sheet

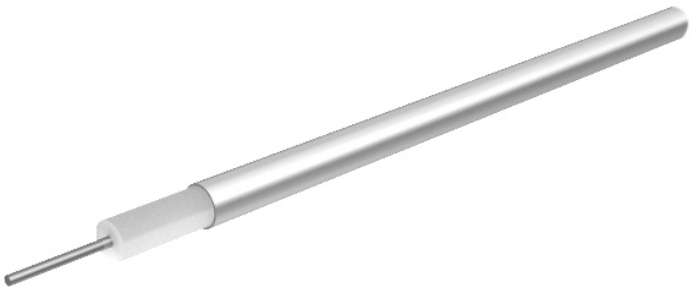
HUBER+SUHNER

## Formable microwave cable
## SR_86_AL_TP_M17 Item: 22810167

## Description

Semi-rigid: Semi-rigid, formable microwave cables

RG405 dimension, MIL style, 50 Ohm, 40 GHz, 125°C, ø2.2 mm, no jacket



## Technical Data

### Construction

| | Material | Detail | Diameter |
|---|---|---|---|
| Centre conductor | Steel, Copper+Silver plated | Wire | 0.51 mm |
| Dielectric | PTFE (Polytetrafluoroethylene) | | 1.68 mm |
| Outer conductor | Aluminum / TP | Tube, 100% | 2.2 mm |

### Electrical Data

| | | |
|---|---|---|
| Impedance | | 50 Ω +/- 1.5 |
| Operating Frequency | | 40 GHz |
| Capacitance | | 105 pF/m |
| Velocity of signal propagation | | 69.5 % |
| Signal delay | | 4.8 ns/m |
| Screening effectiveness | | ≥ 120 dB (up to 18 GHz) |
| Operating voltage | | ≤ 1.5 $kV_{rms}$ (at sea level) |
| Test voltage | | 5 $kV_{rms}$ (50 Hz/1 min) |

### Mechanical Data

| | | |
|---|---|---|
| Weight | | 1.19 kg/100 m |
| Min. bending radius | static | 1.78 mm |

### Environmental Data

| | |
|---|---|
| Temperature range | -40 °C ... +125 °C |
| Installation temperature | -20 °C... +60 °C |
| Halogen free | No |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant |
| 1907/2006/EC (REACH) | compliant |
| 2000/53/EC (ELV) | compliant |
| 2012/19/EU (WEEE) | no special marking needed |

## Additional Information

### Remarks

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

### Suitable Connectors

| | |
|---|---|
| Cable group | Y3 2 mm / 50 Ohm |

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

Coefficients:

| | | | |
|---|---|---|---|
| a = 0.58454 | b = 0.03967 | $f_{max}$ = 40 | P at 1GHz = 130 |

| Frequency (GHz) | Nom. attenuation (dB / m) sea level 25° C ambient temperature | Nom. attenuation (dB / ft) sea level 25° C ambient temperature | Max. CW power (W) sea level 40° C ambient temperature |
|---|---|---|---|
| 2.0 | 0.91 | 0.276 | 92 |
| 4.0 | 1.33 | 0.405 | 65 |
| 6.0 | 1.67 | 0.509 | 53 |
| 8.0 | 1.97 | 0.601 | 46 |
| 10.0 | 2.25 | 0.684 | 41 |
| 12.0 | 2.5 | 0.762 | 38 |
| 14.0 | 2.74 | 0.836 | 35 |
| 16.0 | 2.97 | 0.906 | 33 |
| 18.0 | 3.19 | 0.973 | 31 |
| 20.0 | 3.41 | 1.039 | 29 |
| 22.0 | 3.61 | 1.102 | 28 |
| 24.0 | 3.82 | 1.163 | 27 |
| 26.0 | 4.01 | 1.223 | 25 |
| 28.0 | 4.2 | 1.281 | 25 |
| 30.0 | 4.39 | 1.339 | 24 |
| 32.0 | 4.58 | 1.395 | 23 |
| 34.0 | 4.76 | 1.450 | 22 |
| 36.0 | 4.94 | 1.504 | 22 |
| 38.0 | 5.11 | 1.558 | 21 |
| 40.0 | 5.28 | 1.610 | 21 |