# Data Sheet

## Flexible RF cable
## SPUMA_400-FR

## Description

Spuma: Flexible, low-loss RF cables (LMR* alternatives)

50 Ohm, 6 GHz, 85°C, ø10.25 mm, LSFH jacket, Flame retardant, UL AWM style 1354



## Technical Data

### Construction

| | Material | Detail | Diameter |
|---|---|---|---|
| Centre conductor | Aluminium / Copper | Wire | 2.74 mm |
| Dielectric | SPE (Foamed Polyethylene) | | 7.24 mm |
| Outer conductor | Aluminum / PES | longitudinal Foil, 100% | 7.4 mm |
| Outer conductor | Copper, Tin plated | Braid, 78 % | 8.15 mm |
| Jacket | LSFH (modified polyethylene) | RAL 9005 - bk | 10.25 mm +/- 0.1 |

Print: HUBER+SUHNER SPUMA 400-FR 50 Ohm (UL logo) AWM Style 1354 (PA no.)

### Electrical Data

| | | |
|---|---|---|
| Impedance | | 50 Ω +/- 2 |
| Operating Frequency | | 6 GHz |
| Capacitance | | 78 pF/m |
| Velocity of signal propagation | | 85 % |
| Signal delay | | 3.9 ns/m |
| Screening effectiveness | | ≥ 90 dB (up to 6 GHz) |
| Operating voltage | | ≤ 1.6 $kV_{rms}$ (at sea level) |
| Test voltage | | 3 $kV_{rms}$ (50 Hz/1 min) |
| Voltage Rating UL | | 30 V |

### Mechanical Data

| | | |
|---|---|---|
| Weight | | 11.5 kg/100 m |
| Min. bending radius | static | 25 mm |
| | repeated | 100 mm |

### Environmental Data

| | |
|---|---|
| Temperature range | -40 °C ... +85 °C |
| Temperature rating UL | 60 °C |
| Installation temperature | -20 °C... +60 °C |
| Cold bend test | MIL-C-17 § 4.8.19 |
| Flame propagation test | UL 1581 § 1100, UL 1581 § 1090, IEC 60332-3-24, EN 60332-1-2 |
| Smoke density test | EN 61034-2 |
| Halogen test | IEC 60754 |
| Halogen free | Yes |
| 2011/65/EU (RoHS) | compliant |
| 2006/1907/EC (REACH) | compliant |
| 2000/53/EC (ELV) | compliant |
| 2012/19/EU (WEEE) | no special marking needed |

## Additional Information

*) LMR is a registered trademark of Times Microwave Inc.

### Ordering Information

| | |
|---|---|
| Order as | SPUMA_400-FR |

### Remarks

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

### Suitable Connectors

| | |
|---|---|
| Cable group | U30 7 mm / 50 Ohm |

# Data Sheet

## Flexible RF cable
## SPUMA_400-FR

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a = | 0.1241 | b = | 0.008 | $f_{max}$ = | 6 | P at 1GHz = | 600 |

| Frequency | Nom. attenuation | Nom. attenuation | Max. CW power |
|---|---|---|---|
| (GHz) | (dB / m) | (dB / ft) | (W) |
| | sea level 25° C ambient temperature | sea level 25° C ambient temperature | sea level 40° C ambient temperature |
| 0,3 | 0,07 | 0,021 | 1095 |
| 0,6 | 0,1 | 0,031 | 775 |
| 0,9 | 0,12 | 0,038 | 632 |
| 1,2 | 0,15 | 0,044 | 548 |
| 1,5 | 0,16 | 0,050 | 490 |
| 1,8 | 0,18 | 0,055 | 447 |
| 2,1 | 0,2 | 0,060 | 414 |
| 2,4 | 0,21 | 0,064 | 387 |
| 2,7 | 0,23 | 0,069 | 365 |
| 3,0 | 0,24 | 0,073 | 346 |
| 3,3 | 0,25 | 0,077 | 330 |
| 3,6 | 0,26 | 0,081 | 316 |
| 3,9 | 0,28 | 0,084 | 304 |
| 4,2 | 0,29 | 0,088 | 293 |
| 4,5 | 0,3 | 0,091 | 283 |
| 4,8 | 0,31 | 0,095 | 274 |
| 5,1 | 0,32 | 0,098 | 266 |
| 5,4 | 0,33 | 0,101 | 258 |
| 5,7 | 0,34 | 0,104 | 251 |
| 6,0 | 0,35 | 0,107 | 245 |


Waiver: Fact and figures herein are for information only and do not represent any warranty of any kind.