

Flexible RF cable Spuma_240-RS-FR Item: 85089188

Description

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

High-flexible, 50 Ohm, 6 GHz, 85°C, ø6.17 mm, TPU jacket, flame retardant, railway qualified



Technical Data

Construction

| | Material | Detail | Diameter |
|------------------|---------------------------|-------------------------|-----------------|
| Centre conductor | Copper | Strand, Low-loss | 1.42 mm |
| Dielectric | SPE (Foamed Polyethylene) | | 3.81 mm |
| Outer conductor | Aluminum / PES | longitudinal Foil, 100% | 3.94 mm |
| Outer conductor | Copper, Tin plated | Braid, 94 % | 4.52 mm |
| Jacket | TPU (Urethane TPE) | RAL 9005 - bk | 6.17 mm +/- 0.1 |

Print: HUBER+SUHNER SPUMA 240-RS-FR 50 Ohm (production order number)

Electrical Data

| | |
|--------------------------------|--|
| Impedance | 50 Ω +/- 2 |
| Operating Frequency | 6 GHz |
| Capacitance | 81 pF/m |
| Velocity of signal propagation | 85 % |
| Signal delay | 4.05 ns/m |
| Screening effectiveness | ≥ 90 dB (up to 6 GHz) |
| Operating voltage | ≤ 0.9 kV _{rms} (at sea level) |
| Test voltage | 1.5 kV _{rms} (50 Hz/1 min) |

Mechanical Data

| | | |
|---------------------|---------------|--------------|
| Weight | | 5.4 kg/100 m |
| Min. bending radius | static | 14 mm |
| | | 53 mm |
| Abrasion test | EN 50305, 5.2 | |

Environmental Data

| | |
|--|------------------------------|
| Temperature range | -40 °C ... +85 °C |
| Installation temperature | -20 °C... +60 °C |
| Flame propagation test | EN 60332-1-2, IEC 60332-3-25 |
| Smoke density test | EN 61034-2 |
| Halogen free | Yes |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant |
| 1907/2006/EC (REACH) | compliant |
| 2012/19/EU (WEEE) | no special marking needed |

Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL2 NFPA-130 compliant. An operating temperature of -55°C is feasible for static applications. *) LMR is a registered trademark of Times Microwave Inc.

Remarks

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

Suitable Connectors

| | |
|-------------|-------------------|
| Cable group | X34 4 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 = 0.276

b = 0.0165

f_{max} = 6

P at 1GHz = 230

| 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 |
|--------------------|---|--|---|
| 0,3 | 0,16 | 0,048 | 420 |
| 0,6 | 0,22 | 0,068 | 297 |
| 0,9 | 0,28 | 0,084 | 242 |
| 1,2 | 0,32 | 0,098 | 210 |
| 1,5 | 0,36 | 0,111 | 188 |
| 1,8 | 0,4 | 0,122 | 171 |
| 2,1 | 0,43 | 0,132 | 159 |
| 2,4 | 0,47 | 0,142 | 148 |
| 2,7 | 0,5 | 0,152 | 140 |
| 3,0 | 0,53 | 0,161 | 133 |
| 3,3 | 0,56 | 0,169 | 127 |
| 3,6 | 0,58 | 0,178 | 121 |
| 3,9 | 0,61 | 0,186 | 116 |
| 4,2 | 0,63 | 0,194 | 112 |
| 4,5 | 0,66 | 0,201 | 108 |
| 4,8 | 0,68 | 0,208 | 105 |
| 5,1 | 0,71 | 0,216 | 102 |
| 5,4 | 0,73 | 0,223 | 99 |
| 5,7 | 0,75 | 0,230 | 96 |
| 6,0 | 0,78 | 0,236 | 94 |

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