

Low-loss, 50 Ohm, 6 GHz, 85°C, ø6.17 mm, LSFH jacket

SPUMA_240-FR-01

Properties

- Halogen free cable with standard dimensions
- Low smoke
- Motor oil, Fuels and hydrolysis, Flame retardant
- CPR qualified
- Railway qualified



| Construction | | | |
|------------------|------------------------------|-------------------------|--------------------|
| Component | Material | Detail | Diameter |
| Centre conductor | Copper | Wire | 1.42mm |
| Dielectric | SPE (Foamed Polyethylene) | | 3.82mm |
| Outer conductor | Aluminum / PES | longitudinal Foil, 100% | 3.94mm |
| Outer conductor | Copper, Tin plated | Braid, 94% | 4.52mm |
| | LSFH (modified polyethylene) | RAL 9005 - bk | 6.17 mm +/- 0.1 mm |

| Electrical data | |
|----------------------------------|-------------------------|
| Impedance | 50 Ω +/-2Ω |
| Operating frequency | ≤ 6 GHz |
| Capacitance | 78.9 pF |
| Inductance | 0.2 μH/m |
| Velocity of signal propagation | 82.6 % |
| Signal delay | 4.05 ns/m |
| Screening effectiveness | 90 dB at frequency 6GHz |
| Insulation resistance | 100000000 MΩ*m |
| Inner conductor resistance | 12.63 Ω/km |
| Operating Voltage (at sea level) | ≤ 0.9 kVrms |
| Test voltage (50 Hz/1 min) | ≤ 1.5 kVrms |

| Mechanical data | |
|-------------------------|----------------|
| Weight | approx. 61 g/m |
| Static bending radius | ≥ 14 mm |
| Repeated bending radius | 53 mm |

Low-loss, 50 Ohm, 6 GHz, 85°C, ø6.17 mm, LSFH jacket

SPUMA_240-FR-01

| Environmental data | |
|----------------------------|--|
| Operation temperature | -40 °C ... 85 °C |
| Installation temperature | -20 °C ... 60°C |
| CPR class | B2ca-s1a,d0,a1 |
| Flame propagation standard | IEC 60332-1 |
| | IEC 60332-3-25 |
| Fire characteristics | free of halogenes, acc. standard IEC 60754 |
| Smoke test | EN 61034-2 |

Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications.

Suitable connectors

| | |
|-------------|-----|
| Cable group | X28 |
|-------------|-----|

Ordering information

| Item number | Item description | Available as assembly only |
|-------------|------------------|----------------------------|
| 85021563 | SPUMA_240-FR-01 | No |

Power Matrix

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

| | | | |
|-------------------------|------------------------------------|------------------------------------|------------------------------------|
| a coefficient typical = | 0.2507 | b coefficient typical = | 0.009 |
| fmax = | 6.0 | P at 1 GHz = | 260.0 |
| 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 |
| 0.10 | 0.080 | 0.024 | 822 |
| 0.20 | 0.114 | 0.035 | 581 |
| 0.40 | 0.162 | 0.049 | 411 |
| 0.60 | 0.200 | 0.061 | 336 |
| 1.00 | 0.260 | 0.079 | 260 |
| 1.50 | 0.321 | 0.098 | 212 |
| 2.00 | 0.373 | 0.114 | 184 |
| 6.00 | 0.668 | 0.204 | 106 |

HUBER+SUHNER is certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, AS/EN 9100 and ISO/TS 22163-IRIS. Waiver: Facts and figures herein are for information only and do not represent any warranty of any kind.
DOCUMENT PIM-P31278 / Date of publication: 22.01.2024 / uncontrolled copy