

Low-loss, 50 Ohm, 8 GHz, 85°C, ø10.25 mm, LSFH jacket

SPUMA_400-FR-01

Properties

- Halogen free cable with standard dimensions
- Low smoke
- Ozone, UV and weathering resistance
- CPR qualified
- Railway qualified



Construction

Component	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 mm

Electrical data

Impedance	50 Ω +/-2Ω
Operating frequency	≤ 8 GHz
Capacitance	78 pF/m
Inductance	0.2 μH/m
Velocity of signal propagation	85 %
Signal delay	3.9 ns/m
Screening effectiveness	90 dB at frequency 6GHz
Insulation resistance	1000000 MΩ*m
Inner conductor resistance	4.75 Ω/km
Operating Voltage (at sea level)	≤ 1.6 kVrms
Test voltage (50 Hz/1 min)	≤ 3 kVrms

Mechanical data

Weight	approx. 115 g/m
Static bending radius	≥ 25 mm
Repeated bending radius	100 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
CPR class	Dca
Flame propagation standard	UL 1581 § 1100
	UL 1581 § 1080 (VW-I)
	EN 60332-1-2
Fire characteristics	IEC 60332-3-25
	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
Cold bend test	MIL-C-17 § 4.8.19
UV resistance	ISO 4892-2A

Additional Information

EN 45545 compliant Hazard level for indoor cables: HL3 NFPA-130 compliant.

Suitable connectors

Cable group	U30
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Ordering information

Item number	Item description	Available as assembly only
84132035	SPUMA_400-FR-01	No

Power Matrix

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

a coefficient typical =	0.1241	b coefficient typical =	0.008
fmax =	8	P at 1 GHz =	600
Frequency	Nom. attenuation	Nom. attenuation	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	0.040	0.012	1897
0.20	0.057	0.017	1342
0.40	0.082	0.025	949
0.60	0.101	0.031	775
1.00	0.132	0.040	600
1.50	0.164	0.050	490
2.00	0.192	0.058	424
6.00	0.352	0.107	245
6.50	0.368	0.112	235
7.00	0.384	0.117	227
7.50	0.400	0.122	219
8.00	0.415	0.126	212

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