

Low-loss, 50 Ohm, 6 GHz, 85°C, ø10.25 mm, LSFH jacket

SPUMA_400-FR

Properties

- Halogen free cable with standard dimensions
- Low smoke
- Ozone, UV and weathering resistance
- UL AWM style 1354



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	≤ 6 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
Outer conductor resistance	6.06 Ω/km
Operating Voltage (at sea level)	≤ 1.6 kVrms
Voltage Rating UL	30 V
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
Flame propagation standard	UL 1581 § 1100
	UL 1581 § 1090
	IEC 60332-3-24
	EN 60332-1-2
Fire characteristics	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

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
84040210	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	

Suitable connectors	
Cable group	U30

Ordering information		
Item number	Item description	Available as assembly only
84040210	SPUMA_400-FR	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 =	0.1241	b coefficient typical =	0.008
fmax =	6	P at 1 GHz =	600
Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation (dB/ft)	CW power (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

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