

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

SPUMA_400

Properties

- Halogen free cable with standard dimensions
- Ozone, UV and weathering resistance
- CPR 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, 71%	8.15 mm
	PE (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	100000000 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. 94 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	Fca
Fire characteristics	free of halogenes, acc. standard IEC 60754
Cold bend test	MIL-C-17 § 4.8.19

Suitable connectors	
Cable group	U30

Ordering information		
Item number	Item description	Available as assembly only
84102703	SPUMA_400	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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