

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

SPUMA_400-RS-FR

Properties

- Halogen free cable with standard dimensions
- Low smoke
- - ozone, UV and weathering resistance
- Highly flexible
- Railway qualified



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper	Strand, Low-loss	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, 91%	8.15 mm
	TPU (Urethane TPE)	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	90dB
Insulation resistance	1000000 MΩ*m
Inner conductor resistance	4.75 Ω/km
Operating Voltage (at sea level)	≤ 1 kVrms
Test voltage (50 Hz/1 min)	≤ 2 kVrms

Mechanical data	
Weight	approx. 142 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	EN 60332-1-2 IEC 60332-3-25
Fire characteristics	free of halogenes
Smoke test	EN 61034-2

Additional Information
EN 45545-2 compliant

Suitable connectors
Cable group X32

Ordering information		
Item number	Item description	Available as assembly only
85089191	SPUMA_400-RS-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 =	0.1349	b coefficient typical =	0.0061
fmax =	6.0	P at 1 GHz =	560.0
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	0.043	0.013	1771
0.20	0.062	0.019	1252
0.40	0.088	0.027	885
0.60	0.108	0.033	723
1.00	0.141	0.043	560
1.50	0.174	0.053	457
2.00	0.203	0.062	396
6.00	0.367	0.112	229

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