

Low-loss, 50 Ohm, 6 GHz, 85°C, ø3.15 mm, LSFH jacket

S_02162_B

Properties

- Alternative to standard SPUMA cables
- Low loss
- Low smoke
- Flame retardant



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper	Strand-07	0.8 mm - 0.05 mm
Dielectric	SPE (Foamed Polyethylene)		2.1 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	2.15 mm
Outer conductor	Copper, Tin plated	Braid, 75%	2.65 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	3.15 mm +/- 0.05 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	82 pF/m
Velocity of signal propagation	81 %
Signal delay	4.08 ns/m
Screening effectiveness	80 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	41.8 Ω/km
Outer conductor resistance	17.575 Ω/km
Operating Voltage (at sea level)	≤ 0.25 kVrms
Test voltage (50 Hz/1 min)	≤ 0.5 kVrms

Mechanical data	
Weight	approx. 25 g/m
Static bending radius	≥ 16 mm
Repeated bending radius	30 mm (bendings, up to 500)
Dynamic bending radius	< 50 mm
Load test	IEC 794-1-E3
Tensile stress test	VW TL 821 33

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Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified

Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
Fire characteristics	free of halogenes, acc. standard IEC 60754
Ageing test	VW TL 821 33
Thermal stress test	IEC 61196-1 § 10.9

Suitable connectors	
Cable group	S9

Ordering information		
Item number	Item description	Available as assembly only
22512310	S_02162_B	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 =	0.435	b coefficient typical =	0.1019
fmax =	6	P at 1 GHz =	82
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	0.148	0.045	259
0.20	0.215	0.066	183
0.40	0.316	0.096	130
0.60	0.398	0.121	106
1.00	0.537	0.164	82
1.50	0.686	0.209	67
2.00	0.819	0.250	58
6.00	1.677	0.511	33

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