DATA SHEET

Low-loss, 50 Ohm, 18 GHz, 85°C, ø5.3 mm, PUR jacket

S_04212_B

Properties

- Alternative to standard SPUMA cables
- Low loss
- Suitable for applcations up to 18 GHz



Construction			
Component	**Material**	**Detail**	**Diameter**
Centre conductor	Copper, Silver plated	Wire	1.4 mm - 0.2 mm
Dielectric	SPE (Foamed Polyethylene)		3.8 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	4 mm
Outer conductor	Copper, Tin plated	Braid, 87%	4.5 mm
Jacket	PUR (Polyurethane)	RAL 9005 - bk	5.3 mm +/- 0.2 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 18 GHz
Capacitance	82 pF/m
Velocity of signal propagation	82 %
Signal delay	4.1 ns/m
Screening effectiveness	90 dB at frequency 0.1 GHz ... 18GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 0.5 kVrms
Test voltage (50 Hz/1 min)	≤ 1 kVrms

Mechanical data	
Weight	approx. 41 g/m
Static bending radius	≥ 25 mm
Repeated bending radius	90 mm

Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Fire characteristics	free of halogenes

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Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
22511855	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	

Suitable connectors	
Cable group	X9

Ordering information		
Item number	Item description	Available as assembly only
22511855	S_04212_B	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 =	**0.197**	b coefficient typical =	**0.045**
fmax =	**18**	P at 1 GHz =	**120**
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	0.067	0.020	379
0.20	0.097	0.030	268
0.40	0.143	0.043	190
0.60	0.180	0.055	155
1.00	0.242	0.074	120
1.50	0.309	0.094	98
2.00	0.369	0.112	85
6.00	0.753	0.229	49
6.50	0.795	0.242	47
7.00	0.836	0.255	45
7.50	0.877	0.267	44
8.00	0.917	0.280	42
8.50	0.957	0.292	41
9.00	0.996	0.304	40
9.50	1.035	0.315	39
10.00	1.073	0.327	38
12.00	1.222	0.373	35
14.00	1.367	0.417	32
16.00	1.508	0.460	30
18.00	1.646	0.502	28

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