DATA SHEET

Low-loss, 50 Ohm, 8 GHz, 105°C, ø5.5 mm, RADOX® jacket

SX_04172_B-60

Properties

- Flexible RF cable for low loss applications
- Custom alternative to standard SPUMA cables
- Ozone, UV and weathering resistance
- Railway qualified
- UL AWM style 1354



Construction			
Component	**Material**	**Detail**	**Diameter**
Centre conductor	Copper, Silver plated	Wire	1.4 mm
Dielectric	SPEX (Crosslink Foam PE)		3.8 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	4.2 mm
Outer conductor	Copper, Tin plated	Braid, 86%	4.6 mm
Jacket	RADOX	RAL 9005 - bk	5.5 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 8 GHz
Capacitance	80.3 pF/m
Velocity of signal propagation	83 %
Signal delay	4.01 ns/m
Screening effectiveness	80 dB at frequency 0.01 GHz ... 2.2GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	11.4 Ω/km
Operating Voltage (at sea level)	≤ 0.7 kVrms
Voltage Rating UL	30 V
Test voltage (50 Hz/1 min)	≤ 1.4 kVrms

Mechanical data	
Weight	approx. 47.8 g/m
Static bending radius	≥ 25 mm
Repeated bending radius	90 mm

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Environmental data	
Operation temperature	-40 °C ... 105 °C
Flame propagation standard	EN 60332-1-2
	EN 50305, 9.1.2
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
84026748	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	

Additional Information
EN 45545 compliant Hazard level for indoor cables: HL3

Suitable connectors	
Cable group	X9

Ordering information		
Item number	Item description	Available as assembly only
84026748	SX_04172_B-60	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 =	**0.2375**	b coefficient typical =	**0.0438**
fmax =	**8**	P at 1 GHz =	**198**
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	0.079	0.024	626
0.20	0.115	0.035	443
0.30	0.143	0.044	361
0.40	0.168	0.051	313
0.60	0.210	0.064	256
0.80	0.247	0.075	221
1.00	0.281	0.086	198
1.20	0.313	0.095	181
1.40	0.342	0.104	167
1.60	0.370	0.113	157
1.80	0.397	0.121	148
2.00	0.423	0.129	140
2.50	0.485	0.148	125
3.00	0.543	0.165	114
3.50	0.598	0.182	106
4.00	0.650	0.198	99
5.00	0.750	0.229	89
6.00	0.845	0.257	81
7.00	0.935	0.285	75
8.00	1.022	0.312	70

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DOCUMENT PIM-P666 / Date of publication: 29.07.2026 / uncontrolled copy