

Flexible RF cable

RADOX_RF_213 Item: 85023730

Description

RADOX RF: Highly flame retardant LSFH alternatives to RG cables

RG213 LSFH, 50 Ohm, 2 GHz, 105°C, ø10.6 mm, RADOX® jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Strand-07	2.25 mm
Dielectric	PEX (Polyethylene cross-linked)		7.25 mm
Outer conductor	Copper, Silver plated	Braid, 95%	8.09 mm
Jacket	RADOX EM104	RAL 9005 - bk	10.6 mm +/- 0.1

Print: HUBER+SUHNER RADOX_RF_213 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	2 GHz
Capacitance	101 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	≥ 41 dB (up to 2 GHz)
Operating voltage	≤ 5 kV _{rms} (at sea level)
Test voltage	10 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	16.8 kg/100 m
Min. bending radius	static 50 mm
	repeated (for ≤ 50 bendings) 100 mm
	dynamic 150 mm

Environmental Data

Temperature range	-40 °C ... +105 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, IEC 60332-3-25
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

EN 45545 compliant Hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	U42 7 mm / 50 Ohm
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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.191

b = 0.0689

 $f_{\max} = 2$

P at 1GHz = 560

Frequency	Nom. attenuation	Nom. attenuation	Max. 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
0,1	0,07	0,021	1771
0,2	0,1	0,030	1252
0,3	0,13	0,038	1022
0,4	0,15	0,045	885
0,5	0,17	0,052	792
0,6	0,19	0,058	723
0,7	0,21	0,063	669
0,8	0,23	0,069	626
0,9	0,24	0,074	590
1,0	0,26	0,079	560
1,1	0,28	0,084	534
1,2	0,29	0,089	511
1,3	0,31	0,094	491
1,4	0,32	0,098	473
1,5	0,34	0,103	457
1,6	0,35	0,107	443
1,7	0,37	0,112	430
1,8	0,38	0,116	417
1,9	0,39	0,120	406
2,0	0,41	0,124	396