

RG214 LSFH, 50 Ohm, 6 GHz, 105°C, Ø10.8 mm, RADOX® jacket

GX_07272_D-04

Properties

- Halogen free alternative to RG_214
- Suitable for use in applications up to 6 GHz
- Low smoke
- Ozone, UV and weathering resistance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07, 93 %, RAL 9005 - bk	2.25 mm - 0.1 mm
Dielectric	PEX (Polyethylene cross-linked)		7.25 mm
Outer conductor	Copper, Silver plated	Braid, 93%	8 mm
Outer conductor	Copper, Silver plated	Braid, 95%	8.7 mm
Jacket	RADOX	RAL 9005 - bk	10.8 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	101 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	81 dB at frequency 0.1 GHz ... 6GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	5.8 Ω/km
Operating Voltage (at sea level)	≤ 5 kVrms
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 202 g/m
Static bending radius	≥ 50 mm
Repeated bending radius	110 mm
Dynamic bending radius	< 162 mm

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Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
	EN 60332-1-2
	NF C32-070 C2
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
Toxicity test	NF X 70-100

Additional Information

Railway certificates discontinued by end of 2017. Elimination candidate. Alternative: RADOX_RF_214.

Suitable connectors

Cable group	U32
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Ordering information

Item number	Item description	Available as assembly only
22511988	GX_07272_D-04	No

Power MatrixCalculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

a coefficient typical =	0.2203	b coefficient typical =	0.0874
fmax =	6.0	P at 1 GHz =	560.0
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	0.078	0.024	1771
0.20	0.116	0.035	1252
0.30	0.147	0.045	1022
0.40	0.174	0.053	885
0.60	0.223	0.068	723
0.80	0.267	0.081	626
1.00	0.308	0.094	560
1.20	0.346	0.105	511
1.40	0.383	0.117	473
1.60	0.418	0.127	443
1.80	0.453	0.138	417
2.00	0.486	0.148	396
2.50	0.567	0.173	354
3.00	0.644	0.196	323
3.50	0.718	0.219	299
4.00	0.790	0.241	280
4.50	0.861	0.262	264
5.00	0.930	0.283	250
5.50	0.997	0.304	239
6.00	1.064	0.324	229

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