

RG58 LSFH, 50 Ohm, 3 GHz, 105°C, ø5.1 mm, RADOX® jacket

RADOX_RF_58

Properties

- Halogen free alternative to RG_58
- Low smoke
- Ozone, UV and weathering resistance
- Railway qualified
- HUBER+SUHNER RADOX® jacket material



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Tin plated	Strand-19	0.9 mm
Dielectric	PEX (Polyethylene cross-linked)		2.95 mm
Outer conductor	Copper, Tin plated	Braid, 96%	3.6 mm
Jacket	RADOX EM104	RAL 9005 - bk	5.1 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 3 GHz
Capacitance	101 pF/m
Velocity of signal propagation	66 %
Signal delay	5.05 ns/m
Screening effectiveness	40 dB at frequency 0.04 GHz ... 2GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 2.5 kVrms
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 41.3 g/m
Static bending radius	≥ 25 mm
Repeated bending radius	50 mm (bendings, up to 50)
Dynamic bending radius	< 100 mm

Environmental data	
Operation temperature	-40 °C ... 105 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	EN 60332-1-2 EN 50305, 9.1.2

RG58 LSFH, 50 Ohm, 3 GHz, 105°C, ø5.1 mm, RADOX® jacket

RADOX_RF_58

Environmental data	
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
UV resistance	ISO 4892-2A

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

Suitable connectors	
Cable group	U7

Ordering information		
Item number	Item description	Available as assembly only
85023726	RADOX_RF_58	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 =	0.387	b coefficient typical =	0.201
fmax =	3	P at 1 GHz =	130
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	0.142	0.043	411
0.20	0.213	0.065	291
0.30	0.272	0.083	237
0.40	0.325	0.099	206
0.60	0.420	0.128	168
0.80	0.507	0.155	145
1.00	0.588	0.179	130
1.20	0.665	0.203	119
1.40	0.739	0.225	110
1.60	0.811	0.247	103
1.80	0.881	0.269	97
2.00	0.949	0.289	92
2.50	1.114	0.340	82
3.00	1.273	0.388	75

HUBER+SUHNER is certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, AS/EN 9100 and ISO/TS 22163-IRIS. Waiver: Facts and figures herein are for information only and do not represent any warranty of any kind.
DOCUMENT PIM-P982 / Date of publication: 10.10.2024 / uncontrolled copy