

Flexible RF cable

K_01252_D Item: 22610061

Description

K: RF cables with PTFE/FEP/PFA dielectrics

RG178D/RD178, 50 Ohm, 6 GHz, 200°C, ø2.4 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.31 mm
Dielectric	PTFE (Polytetrafluoroethylene)		0.83 mm
Outer conductor	Copper, Silver plated	Braid, 95%	1.33 mm
Outer conductor	Copper, Silver plated	Braid, 92 %	1.83 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	2.4 mm +/- 0.1

Print: HUBER+SUHNER K 01252 D 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.84 ns/m
Screening effectiveness	≥ 80 dB (up to 6 GHz)
Operating voltage	≤ 0.5 kV _{rms} (at sea level)
Test voltage	1 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		1.5 kg/100 m
Min. bending radius	static	15 mm
	dynamic	24 mm
		36 mm

Environmental Data

Temperature range	-65 °C ... +200 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-3,
Halogen free	No
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

Remarks

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

Suitable Connectors

Cable group X1 1 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 = 1.3

b = 0.3327

$f_{\max} = 6$

P at 1GHz = 111

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
0,3	0,81	0,247	203
0,6	1,21	0,368	143
0,9	1,53	0,467	117
1,2	1,82	0,556	101
1,5	2,09	0,637	91
1,8	2,34	0,714	83
2,1	2,58	0,787	77
2,4	2,81	0,857	72
2,7	3,03	0,925	68
3,0	3,25	0,990	64
3,3	3,46	1,054	61
3,6	3,66	1,117	59
3,9	3,86	1,178	56
4,2	4,06	1,238	54
4,5	4,25	1,297	52
4,8	4,45	1,355	51
5,1	4,63	1,412	49
5,4	4,82	1,468	48
5,7	5,0	1,524	46
6,0	5,18	1,579	45