Data Sheet

HUBER+SUHNER

Flexible RF cable
RG_178_B/U

Description

RG: RG type RF cables

RG178, 50 Ohm, 3 GHz, 200°C, ø1.8 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
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	1.8 mm +/- 0.1

Print: HUBER+SUHNER RG 178 B/U 50 Ohm (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		3 GHz
Capacitance		97 pF/m
Velocity of signal propagation		69 %
Signal delay		4.84 ns/m
Screening effectiveness		≥ 40 dB (up to 1 GHz)
Operating voltage		≤ 0.5 kV_{rms} (at sea level)
Test voltage		1 kV_{rms} (50 Hz/1 min)

Mechanical Data

Weight		0.84 kg/100 m
Min. bending radius	static	10 mm
		18 mm
	dynamic	27 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

Additional Information

MIL reference: M17/93-RG178 and M17/93-00001

Ordering Information

Order as	RG_178_B/U

Remarks

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

Suitable Connectors

Cable group	U1 1 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a = 1.414	b = 0.173	f_{max} = 3	P at 1GHz = 52

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
0,15	0,57	0,175	134
0,3	0,83	0,252	95
0,45	1,03	0,313	78
0,6	1,2	0,365	67
0,75	1,35	0,413	60
0,9	1,5	0,456	55
1,05	1,63	0,497	51
1,2	1,76	0,535	47
1,35	1,88	0,572	45
1,5	1,99	0,607	42
1,65	2,1	0,641	40
1,8	2,21	0,673	39
1,95	2,31	0,705	37
2,1	2,41	0,735	36
2,25	2,51	0,765	35
2,4	2,61	0,794	34
2,55	2,7	0,823	33
2,7	2,79	0,851	32
2,85	2,88	0,878	31
3,0	2,97	0,905	30