

HUBER+SUHNER® DATA SHEET

Coaxial Cable: RG_178_B/U

Rev.: H



Description

PTFE - 50 Ohm - single screen

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.31 mm
Dielectric	PTFE		0.83 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	1.33 mm
Jacket	FEP	RAL 8015 - br	1.8 mm +/- 0.1
Print	HUBER+SUHNER RG 178 B/U 50 Ohm (PA no.)		

Electrical Data

Impedance	50 Ω +/- 2
Max. operating frequency	1 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.84 ns/m
Insulation resistance	$\geq 1 \times 10^8 \text{ M}\Omega\text{m}$
Min. screening effectiveness	>40 dB (up to 1 GHz)
Max. 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
	repeated (for max. 50 bendings) 18 mm
	dynamic 27 mm

Environmental Data

Temperature range	-65 °C... + 165 °C
Installation temperature	-20 °C... + 60 °C
Flammability	IEC 60332-3
2002/95/EC (RoHS)	compliant

Ordering Information

Order as	RG_178_B/U
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Additional Information

Remarks

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

Cable group

U1 1 mm / 50 Ohm

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

Coefficients:

a=	1.4135	b=	0.2038	f _{max} =	1	p _{at} 1GHz =	59
	Frequency		Nom. attenuation		Nom. attenuation		Max. CW power
	(GHz)		(dB / m)		(dB / ft)		(watt)
			sea level 25° C ambient temperature		sea level 25° C ambient temperature		sea level 40° C ambient temperature
	0.05		0.33		0.101		264
	0.10		0.47		0.143		187
	0.15		0.58		0.177		152
	0.20		0.67		0.204		132
	0.25		0.76		0.232		118
	0.30		0.84		0.256		108
	0.35		0.91		0.277		100
	0.40		0.98		0.299		93
	0.45		1.04		0.317		88
	0.50		1.10		0.335		83
	0.55		1.16		0.354		80
	0.60		1.22		0.372		76
	0.65		1.27		0.387		73
	0.70		1.33		0.405		71
	0.75		1.38		0.421		68
	0.80		1.43		0.436		66
	0.85		1.48		0.451		64
	0.90		1.52		0.463		62
	0.95		1.57		0.479		61
	1.00		1.62		0.494		59

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!

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