



# SUHNER® COAXIAL CABLE DATA SHEET

## TYPE RG 178 B/U

*Single screened coaxial cable*

### Cable Design



	Material	Detail	Diameter
Centre conductor:	StCuAg	Strand-07 ( 0.1 mm)	0.31 mm
Dielectric:	PTFE		0.83 mm
1. Outer conductor:	CuAg Braid	95% coverage	1.33 mm
2. Outer conductor:	n/a n/a		
Jacket:	FEP	RAL 8015 - br	1.8 mm +/-0.1
Print:	SUHNER SWITZERLAND RG 178 B/U 50 Ohm		

Armour H: n/a

### Electrical Data

Impedance:	50 $\Omega$ +/-2
Max. operating frequency:	1 GHz
Capacitance :	96.8 pF / m
Velocity of signal propagation:	69 %
Signal delay:	4.84 ns / m
Min. screening effectiveness:	> 35 dB (up to 0.3 GHz)
Max. operating voltage:	1 kV <sub>rms</sub> (at sea level)
Test voltage:	2 kV <sub>rms</sub> (50 Hz/ 1min)
Insulation resistance:	> 10 M $\Omega$ m

### General Data

Temperature range:	-65 °C...+ 165 °C
Weight:	0.84 kg / 100 m
Min. bending radius :	static 10 mm
	repeated (for max. 50 bendings) 20 mm
	dynamic 40 mm

### Suitable Connectors

Cable group U1 / U1  
(for details refer to the "SUHNER coaxial connector catalogue" or contact you nearest HUBER+SUHNER partner)

### Notes

Order as **RG 178 B/U** under article number **22510043**

#### WAIVER!

While the information contained in this folder has been carefully compiled to the best of our present knowledge, it is not intended as representation or warranty of any kind on our part regarding the fitness of the products concerned for any particular use or purpose and neither shall any statement contained herein be constructed as a recommendation to infringe any industrial property rights or as a license to use any such rights. The fitness of each product for any particular purpose must be checked beforehand with our specialists.



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

Coefficients:

$a = 1.408$

$b = 0.2296$

$f_{\max} = 1$

$p_{\text{at } 1\text{GHz}} = 59$

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 (watt) sea level 40° C ambient temperature
0.05	0.326	0.0994	263.9
0.10	0.468	0.1426	186.6
0.15	0.580	0.1768	152.3
0.20	0.676	0.2060	131.9
0.25	0.761	0.2319	118.0
0.30	0.840	0.2560	107.7
0.35	0.913	0.2783	99.7
0.40	0.982	0.2993	93.3
0.45	1.048	0.3194	88.0
0.50	1.110	0.3383	83.4
0.55	1.170	0.3566	79.6
0.60	1.228	0.3743	76.2
0.65	1.284	0.3913	73.2
0.70	1.339	0.4081	70.5
0.75	1.392	0.4243	68.1
0.80	1.443	0.4398	66.0
0.85	1.493	0.4550	64.0
0.90	1.542	0.4700	62.2
0.95	1.590	0.4846	60.5
1.00	1.638	0.4992	59.0

**Test** (following tests have been passed successfully)

Flame propagation: IEC 332-3

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