

Coaxial Cable RG_303_/U

Description

PTFE - 50 Ohm - single screen



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Wire	0.95 mm
Dielectric	PTFE (Polytetrafluoroethylene)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 97%	3.6 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	4.3 mm +/- 0.1

Print: HUBER+SUHNER RG 303 U 50 Ohm (PA no.)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	1 GHz
Capacitance	94 pF/m
Velocity of signal propagation	69 %
Signal delay	4.75 ns/m
Insulation resistance	$\geq 1 \times 10^8$ M Ω m
Min. screening effectiveness	≥ 40 dB (up to 3 GHz)
Max. operating voltage	≤ 2.5 kV _{rms} (at sea level)
Test voltage	5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	4.48 kg/100 m
Min. bending radius	static 25 mm
	repeated (for ≤ 50 bendings) 43 mm

Environmental Data

Temperature range	-65 °C... +165 °C
Installation temperature	-20 °C... +60 °C
Flammability	IEC 60332-3,
2011/65/EU (RoHS)	compliant

Additional Information

Ordering Information

Order as	RG_303_/U
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Remarks

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

Suitable Connectors

Cable group	U7 3 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 = 0.3956

b = 0.0645

f_{max} = 1

P at 1GHz = 338

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	0,09	0,028	1512
0,1	0,13	0,040	1069
0,15	0,16	0,050	873
0,2	0,19	0,058	756
0,25	0,21	0,065	676
0,3	0,24	0,072	617
0,35	0,26	0,078	571
0,4	0,28	0,084	534
0,45	0,29	0,090	504
0,5	0,31	0,095	478
0,55	0,33	0,100	456
0,6	0,35	0,105	436
0,65	0,36	0,110	419
0,7	0,38	0,115	404
0,75	0,39	0,119	390
0,8	0,41	0,124	378
0,85	0,42	0,128	367
0,9	0,43	0,132	356
0,95	0,45	0,136	347
1,0	0,46	0,140	338