

HUBER+SUHNER® DATA SHEET

Coaxial Cable: RG_316_/U



Description

PTFE - 50 Ohm - single screen

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.54 mm
Dielectric	PTFE		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	2 mm
Jacket	FEP	RAL 8015 - br	2.5 mm +/- 0.1
Print	HUBER+SUHNER RG 316 U 50 Ohm (PA no.)		

Electrical Data

Impedance	50 Ω +/- 2
Max. operating frequency	3 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.86 ns/m
Insulation resistance	$\geq 1 \times 10^8 \text{ M}\Omega\text{m}$
Min. screening effectiveness	>38 dB (up to 1 GHz)
Max. operating voltage	0.85 kV _{rms} (at sea level)
Test voltage	1.7 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	1.6 kg/100 m	
Min. bending radius	static	15 mm
	repeated (for max. 50 bendings)	25 mm
	dynamic	75 mm

Environmental Data

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

Ordering Information

Order as RG_316_/U

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	crimped (U2)
	clamped (U2)
	soldered —

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Rev.: I

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

Coefficients:

a=	0.7727	b=	0.0972	f _{max} =	3	p _{at} 1GHz =	135
	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
	0.2		0.37		0.113		302
	0.3		0.45		0.137		246
	0.5		0.59		0.180		191
	0.6		0.66		0.201		174
	0.8		0.77		0.235		151
	0.9		0.82		0.250		142
	1.1		0.92		0.280		129
	1.2		0.96		0.293		123
	1.4		1.05		0.320		114
	1.5		1.09		0.332		110
	1.7		1.17		0.357		104
	1.8		1.21		0.369		101
	2.0		1.29		0.393		95
	2.1		1.32		0.402		93
	2.3		1.40		0.427		89
	2.4		1.43		0.436		87
	2.6		1.50		0.457		84
	2.7		1.53		0.466		82
	2.9		1.60		0.488		79
	3.0		1.63		0.497		78