

Description

50 Ohm Coaxial cable
low loss for wireless communication systems



Data Sheet

WL300ZHN



Ø	1,80 (Cu)	4,80 (PEE)	4,97 (Al/Pet/Al/Sur)	5,57 (CuSn)	7,60 (LSZH)
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Construction data

Inner conductor of plain copper	(Cu)	Ø 1,80 ± 0,02	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEE)	Ø 4,80 ± 0,10	mm
Aluminium/Polyester/Aluminium/Surlyne tape longitudinally overlapped and bonded to the dielectric	(Al/Pet/Al/Sur)		
Braid of tinned copper wires	(CuSn)		
Braid optical coverage (IEC 96-1)		84	%
Diameter under Sheath		Ø 5,57	mm
Outer sheath of Thermoplastic material - black - halogen-free, low smoke, flame retardant and UV-resistant	(LSZH)	Ø 7,60 ± 0,10	mm

Printed each meter by yellow ink-jet :

CAVEL WL 300 ZHN 50 Ohm LOW LOSS WI-FI/RF - MADE IN ITALY - ss/aa - m
(ss=settimana aa=anno)

(ss=week, aa=year) (m=meter marking)

Physical data

Weight of copper conductors		43,90	kg/km
Total weight of cable		83,80	kg/km
Minimum bending radius		75	mm
Maximum cable pulling strength		540	N
Operating temperature		-40 / +70	°C
Fire Load	836 MJ/km	232	kWh/km

Electrical data

Characteristic impedance		50 ± 2	Ohm
Capacitance		78	pF/m
Velocity Ratio		86 %	
Inner conductor resistance		7	Ohm/km
Outer conductor resistance		7,30	Ohm/km
Loop resistance		14,30	Ohm/km
Sheat Insulation voltage (spark test)		5	kV
Maximum current (Ieff)		18	A
Structural return loss (SRL)		Max. power	
5 - 470 MHz	>30 dB	30 MHz	2.090 W
470 - 1000 MHz	>28 dB	150 MHz	920 W
1000 - 2000 MHz	>26 dB	450 MHz	520 W
2000 - 3000 MHz	>22 dB	1500 MHz	280 W
		2000 MHz	240 W
		50 MHz	1.620 W
		220 MHz	760 W
		900 MHz	360 W
		1800 MHz	250 W
		2500 MHz	210 W

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Date

05/06/2017

Responsible

Alberto Scardovi

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5800 MHz 130 W

Screening Attenuation (SA)

30 - 1000 MHz	>85 dB
1000 - 2000 MHz	>85 dB
2000 - 3000 MHz	>70 dB

Shield Transfer Impedance (Zt)

5 - 30 MHz <8 mOhm/m

Attenuation (at 20°C)

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	4,10	1500	24,50
150	7,00	1800	27,00
220	8,60	2000	28,60
450	12,80	2500	32,50
900	18,60	5800	50,00

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