

Description

50 Ohm Coaxial cable
low loss for wireless communication systems



Data Sheet

WL400ZHN



Ø	2,70 (Cu)	7,20 (PEE)	7,37 (Al/Pet/Al/Sur)	7,97 (CuSn)	10,30 (LSZH)
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Construction data

Inner conductor of plain copper	(Cu)	Ø 2,70 ± 0,10	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEE)	Ø 7,20 ± 0,15	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)		82	%
Diameter under Sheath		Ø 7,97	mm
Outer sheath of Thermoplastic material - black - halogen-free, low smoke, flame retardant and UV-resistant	(LSZH)	Ø 10,30 ± 0,20	mm

Printed each meter by yellow ink-jet :

CAVEL WL 400 ZHN 50 Ohm LOW LOSS WI-FI/RF - MADE IN ITALY - ss/aa - m

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

Physical data

Weight of copper conductors		80,18	kg/km
Total weight of cable		147,50	kg/km
Minimum bending radius		100	mm
Maximum cable pulling strength		720	N
Operating temperature		-40 / +70	°C
Fire Load	1.517 MJ/km	421	kWh/km

Electrical data

Characteristic impedance		50 ± 2	Ohm
Capacitance		78	pF/m
Velocity Ratio		86 %	
Inner conductor resistance		3,40	Ohm/km
Outer conductor resistance		5,40	Ohm/km
Loop resistance		8,80	Ohm/km
Sheat Insulation voltage (spark test)		8	kV
Maximum current (Ieff)		25	A

Structural return loss (SRL)		Max. power			
5 - 470 MHz	>30 dB	30 MHz	3.360 W	50 MHz	2.590 W
470 - 1000 MHz	>28 dB	150 MHz	1.470 W	220 MHz	1.200 W
1000 - 2000 MHz	>26 dB	450 MHz	820 W	900 MHz	570 W
2000 - 3000 MHz	>22 dB	1500 MHz	430 W	1800 MHz	390 W
		2000 MHz	360 W	2500 MHz	320 W

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Date

05/06/2017

Responsible

Alberto Scardovi

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5800 MHz 200 W

Screening Attenuation (SA)

30 - 1000 MHz	>100 dB
1000 - 2000 MHz	>100 dB
2000 - 3000 MHz	>90 dB

Shield Transfer Impedance (Zt)

5 - 30 MHz <1,8 mOhm/m

Attenuation (at 20°C)

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	2,60	1500	16,60
150	4,60	1800	18,20
220	5,70	2000	19,30
450	8,70	2500	22,00
900	12,50	5800	29,40

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