

**Description**

50 Ohm Coaxial cable  
low loss for wireless communication systems



Data Sheet

**WL500ZHN**



Ø	3,40 (Cu)	9,40 (PEG/PE)	9,57 (Al/Pet/Al/Sur)	10,17 (CuSn)	12,70 (LSZH)
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**Construction data**

Inner conductor of plain copper	(Cu)	Ø 3,40 ± 0,10	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEG/PE)	Ø 9,40 ± 0,15	mm
Aluminum/Polyester/Aluminum/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)		78	%
Diameter over Braid		Ø 10,17	mm
Outer sheath of Thermoplastic material - black - halogen-free, low smoke, flame retardant and UV-resistant	(LSZH)	Ø 12,70 ± 0,20	mm

Printed each meter by yellow ink-jet :

**CAVEL WL 500 ZHN 50 Ohm LOW LOSS WI-FI/RF - MADE IN ITALY - gggaan - m**

(ggg=day)(aa=year)(n=batch) (m=meter marking)

**Physical data**

Weight of copper conductors	116,00	kg/km
Total weight of cable	212,23	kg/km
Minimum bending radius	130	mm
Maximum cable pulling strength	1.150	N
Minimum installation temperature	-5	°C
Operating temperature	-25 / +80	°C

**Electrical data**

Characteristic impedance	50 ± 2	Ohm
Capacitance	78	pF/m
Velocity Ratio	86 %	
Inner conductor resistance	2,10	Ohm/km
Outer conductor resistance	5	Ohm/km
Loop resistance	7,10	Ohm/km
Sheat Insulation voltage (spark test)	8	kV
Maximum current (I <sub>eff</sub> )	34	A
Structural return loss (SRL)	Max. power	
5 - 470 MHz	>30 dB	30 MHz 4.400 W 50 MHz 3.400 W
470 - 1000 MHz	>28 dB	150 MHz 1.930 W 220 MHz 1.600 W
1000 - 2000 MHz	>26 dB	450 MHz 1.090 W 900 MHz 750 W
2000 - 3000 MHz	>22 dB	1500 MHz 570 W 1800 MHz 520 W
		2000 MHz 490 W 2500 MHz 430 W

**ITALIANA CONDUTTORI s.r.l.**

Viale Zanotti 90 I - 27027 Gropello Cairoli  
Tel +39-382.815150 Fax +39-0382.814212

Date

15/05/2020

Responsible

A. Bergaglio

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Screening Attenuation (SA)

&gt;90 dB

## Attenuation (at 20°C )

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	1,90	1500	13,10
150	3,40	1800	14,50
220	4,40	2000	15,40
450	6,60	2500	17,50
900	9,70	5800	23,80

**Connectors**

- NF500** Series NF Crimp, Crimp, for INDOOR installation, nitin-plated brass
- NM500** Series NM Crimp, Crimp, for INDOOR installation, nitin-plated brass
- SMAF500** Series SMA female, Crimp, for INDOOR installation
- SMAM500** Series SMA male, Crimp, for INDOOR installation

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