

Description

50 Ohm Coaxial cable

low loss for wireless communication systems

**Data Sheet****WL500ZHN**

Ø	3,40	9,40			12,70
	(Cu)	(PEG)	(Al/Pet/Al+Sur)	(CuSn)	(LSZH)

Class CPR acc. to UE 305/2011 (DoP)

Fca

The cable can be used in the field of application of the Construction Product Regulation (DoP) UE nr. 305/ 2011 for the class of performance specified on the related product label.

Standards

CEI-UNEL 36762

Application

Indoor + Outdoor Installation

Construction data

Inner conductor of plain copper	(Cu)	Ø 3,40 ± 0,10	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEG)	Ø 9,40 ± 0,15	mm
Aluminum/Polyester/Aluminum+Surlyn 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 (RAL 9011) - 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 - gggaa(n) - m

(gggaan=batch number m=meter marking)

Physical data

Weight of copper conductors	116,00	kg/km
Total weight of cable	212,23	kg/km
Minimum bending radius (single/repeated bending)	65 / 130	mm
Maximum cable pulling strength	1.150	N
Minimum installation temperature	-5	°C
Operating temperature	-20 / +80	°C

Electrical data

Characteristic impedance	50 ± 2	Ohm
Velocity Ratio	85 %	
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

ITALIANA CONDUTTORI s.r.l.

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Date**03/08/2023****Responsible****A. Bergaglio**

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**Data Sheet****WL500ZHN**Maximum current (I_{eff})

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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

Screening Attenuation (SA)

30 - 1000 MHz

>90 dB

Attenuation (at 20°C)

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	2,30	2000	18,00
150	4,00	2500	19,50
220	5,00	3000	21,40
450	7,60	4000	25,80
900	11,00	4800	28,30
1500	15,50	5800	32,50
1800	17,00		

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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