

## Description

50 Ohm Coaxial cable

low loss for wireless communication systems



## Data Sheet

WL400ZHN



Ø	2,70	7,20	7,37	7,97	10,30
	(Cu)	(PEG)	(Al/Pet/Al+Sur)	(CuSn)	(LSZH)

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

Eca

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 2,70 ± 0,10	mm
Dielectric of physical foam polyethylene	(PEG)	Ø 7,20 ± 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)		82	%
Diameter over Braid		Ø 7,97	mm
Outer sheath of Thermoplastic material - black (RAL 9011) - halogen-free, low smoke, flame retardant and UV-resistant	(LSZH)	Ø 10,30 ± 0,20	mm

Printed by yellow ink-jet :

**CAVEL WL 400 ZHN 50 Ohm LOW LOSS WI-FI/RF - MADE IN ITALY - gggaa(n) - m**

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

## Physical data

Weight of copper conductors	80,40	kg/km
Total weight of cable	148,80	kg/km
Minimum bending radius (single/repeated bending)	52 / 103	mm
Maximum cable pulling strength	720	N
Minimum installation temperature	-5	°C
Operating temperature	-20 / +80	°C

## Electrical data

Characteristic impedance	50 ± 2	Ohm
Capacitance	78	pF/m
Velocity Ratio	86 %	
Inner conductor resistance	3,40	Ohm/km

## ITALIANA CONDUTTORI s.r.l.

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

## Date

03/08/2023

## Responsible

A. Bergaglio

**Description**

50 Ohm Coaxial cable

low loss for wireless communication systems



**Data Sheet**

**WL400ZHN**

Outer conductor resistance	6	Ohm/km
Loop resistance	9,40	Ohm/km
Sheat Insulation voltage (spark test)	8	kV
Maximum current (I <sub>eff</sub> )	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
		1500 MHz	430 W	1800 MHz	390 W
		2000 MHz	360 W	2500 MHz	320 W

Screening Attenuation (SA)	
30 - 1000 MHz	>90 dB

**Attenuation (at 20°C )**

Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]
50	2,80	2000	18,60
150	5,00	2500	22,50
220	6,00	3000	24,70
450	8,70	4000	28,40
900	12,50	4800	31,00
1500	16,60	5800	37,00
1800	18,20		

**Connectors**

- NF400** Series NF Crimp, Crimp, for INDOOR installation, nitin-plated brass
- NM400** Series NM Crimp, Crimp, for INDOOR installation, nitin-plated brass
- SMAF400** Series SMA female, Crimp, for INDOOR installation
- SMAM400** Series SMA male, Crimp, for INDOOR installation

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

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

**Date**

**03/08/2023**

**Responsible**

**A. Bergaglio**