

## Description

50 Ohm Coaxial cable

low loss for wireless communication systems

Coaxial Cables

CAVEL®

since 1968

Data Sheet

WL500



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

## 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.

## 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 Polyethylene - black - with carbonblack	(PE)	Ø 12,70 ± 0,20	mm

Printed each meter by yellow ink-jet :

CAVEL WL 500 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	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	4,20	Ohm/km
Loop resistance	6,30	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	

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Date

22/05/2017

Responsible

Alberto Scardovi

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Data Sheet

**WL500**

2000 - 3000 MHz &gt;22 dB

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

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