

Description

50 Ohm Coaxial cable

low loss for wireless communication systems



Data Sheet

WL240

Ø	1,40	3,80	3,90	4,38	6,10
	(Cu)	(PEG)	(Al/Pet/Al)	(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.

Standards

CEI-UNEL 36762

Application

Exterior and Underground Installation

Construction data

Inner conductor of plain copper	(Cu)	Ø 1,40 ± 0,02	mm
Dielectric of physical foam polyethylene + outer PE skin	(PEG)	Ø 3,80 ± 0,10	mm
Outer Aluminum/Polyester/Aluminum tape longitudinally overlapped	(Al/Pet/Al)		
Water repellent sealing (dielectric)	(Jelly1)		
Braid of tinned copper wires	(CuSn)		
Braid optical coverage (IEC 96-1)		77	%
Diameter over Braid		Ø 4,38	mm
Outer sheath of Polyethylene - black (RAL 9011) - with carbonblack	(PE)	Ø 6,10 ± 0,10	mm
Printed each meter by yellow ink-jet :			

CAVEL WL 240 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	25,34	kg/km
Total weight of cable	43,63	kg/km
Minimum bending radius (single/repeated bending)	31 / 61	mm
Maximum cable pulling strength	360	N
Minimum installation temperature	-5	°C
Operating temperature	-40 / +80	°C

Electrical data

Characteristic impedance	50 ± 2	Ohm
Capacitance	82	pF/m
Velocity Ratio	80 %	

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

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Inner conductor resistance		11,20		Ohm/km	
Outer conductor resistance		12,40		Ohm/km	
Loop resistance		23,60		Ohm/km	
Sheat Insulation voltage (spark test)		5		kV	
Maximum current (I _{eff})		12		A	
Structural return loss (SRL)			Max. power		
5 - 470 MHz	>30 dB	30 MHz	1.410 W	50 MHz	1.090 W
470 - 1000 MHz	>28 dB	150 MHz	620 W	220 MHz	510 W
1000 - 2000 MHz	>24 dB				
2000 - 3000 MHz	>20 dB				
Screening Attenuation (SA)					
30 - 1000 MHz	>90 dB				
Attenuation (at 20°C)					
Frequency [MHz]	Attenuation [dB/100m]	Frequency [MHz]	Attenuation [dB/100m]		
50	6,00	2000	37,30		
150	10,00	2500	41,00		
220	11,80	3000	47,00		
450	16,90	4000	55,00		
900	24,00	4800	59,50		
1500	32,00	5800	68,00		
1800	35,20				
Connectors					
NF240	Series NF Crimp, Crimp, for INDOOR installation, nitin-plated brass				
NM240	Series NM Crimp, Crimp, for INDOOR installation, nitin-plated brass				
SMAF240	Series SMA female, Crimp, for INDOOR installation				
SMAM240	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	