

**Description**

Local Area Network Cable

Cat. 5e F/UTP 4x2xAWG24/1 PVC+PE

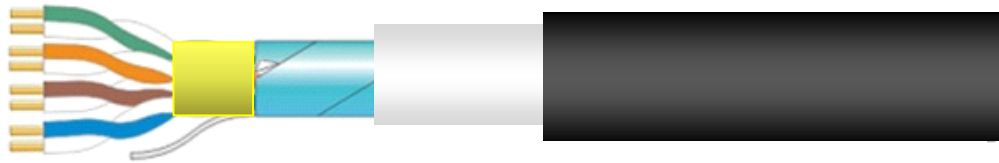
Coaxial Cables

**CAVEL**

since 1968

Data Sheet

**LAN5412G**



Ø	0,51	1,00	0,02	6,20	7,40
	(Cu)	(PE)	(Pet)	(PVC)	(PE)

**Application**

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)

IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T

IEEE 802.5 16 MB: ISDN; TPDDI; ATM

Power over Ethernet (PoE)/PoE+

**Standards**

EIA-TIA 568B.2	ISO/IEC 11801	IEC 61156-5	EN 50173
EN 50288-2-1			

**Construction data**

4 foil screened pairs with conductor of bare copper	(Cu)	Ø 0,51	mm
Insulation of solid Polyethylene	(PE)	Ø 1,00	mm
Polyester film spirally wrapped	(Pet)		

**Composition**

Twisted pairs, coloured by Standard TIA-568A

Drain wire of tinned copper	(CuSn)	Ø 0,40	mm
Alluminio/Polyester tape spirally wound	(Al/Pet)	23 x 30/19	mm/µm
Inner sheath of Polyvinylchloride white (PVC)	(PVC)	6,20	mm
Outer sheath of Polyethylene - black	(PE)	Ø 7,40	mm
Printed each meter by yellow ink-jet :			

**CAVEL LAN 541 2G MADE IN ITALY ss/aa F/UTP 4x2xAWG24 - CATEGORY 5E ISO-IEC 11801 EN50173  
CEI-UNEL 36762 C-4 (U0 =400V) - m**

(ss=week, aa=year) (m=meter marking)

**Physical data**

Weight of copper conductors		15,60	kg/km
Total weight of cable		46,41	kg/km
Minimum bending radius x1/n		25/50	mm
Maximum tensile strength during the installation		100	N
Installation temperature		0 / +50	°C
Operating temperature		-20 / +60	°C
Fire Load	1.042 MJ/km	289	kWh/km

**Electrical data**

Characteristic impedance	1 - 100 MHz	100 ± 5	Ohm
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**ITALIANA CONDUTTORI s.r.l.**

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

Date

12/05/2016

Responsible

Alberto Scardovi

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Capacitance of Twisted Pair (@800Hz)	48	pF/m
Velocity Ratio	67 %	
DC Conductor Resistance	95	Ohm/km
Loop resistance	190	Ohm/km
Insulation resistance	> 2000	MOhm/km
Sheath Insulation Voltage (DC, 1 min)	3	kV
Coupling Attenuation	> 45	dB

## Screening Attenuation (SA)

30 - 100 MHz

&gt; 50 dB

## Shield Transfer Impedance (Zt)

1 MHz

&lt; 22 mOhm/m

10 MHz

&lt; 10 mOhm/m

30 MHz

&lt; 26 mOhm/m

**Transmission-Characteristic (at 20°C)**

Frequency [MHz]	Attenuation [dB/100m]	RL [dB]	NEXT [dB]	ACR [dB]
1	1,90	20,00	71,00	69,10
10	6,00	25,00	56,00	50,00
20	8,50	25,00	51,00	42,50
31,2	10,70	24,00	49,00	38,30
62,5	15,70	22,00	44,00	28,30
100	19,80	20,00	41,00	21,20
155,5	24,20		38,00	13,80
200	27,50		36,00	8,50
250	29,20		35,00	5,80
300	32,00		34,00	2,00

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