



Product: [DPLN50](#)

Category 3 Backbone Cable, 50 Pair, U/UTP, CMP

Product Description

Category 3 Premise Backbone Cable (16MHz), DIW 50 Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, PVC-LS Jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Backbone Cable, Ethernet 10BASE-T, Analog Phone, FAX
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Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
24	Solid	BC - Bare Copper	50

Insulation

Material	Color Code
PVC - Polyvinyl Chloride	Western Electric (Non-Striped) Bound in 25 Pair Sub-Units, Binder 1: Blue/White, Binder 2: Orange/White
Bonded-Pair:	No

Outer Jacket Material

Material	Material Trade Name	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	Flamarrest®	0.540 in	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance
93.8 Ohm/km	5%	330 pF/100m	17 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
16 MHz	543 ns/100m	45 ns/100m	61%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. RL (Return Loss) [dB]	Max./Min. Fitted Impedance
0.772 MHz	2.2 dB/100m	47.0 dB	43.0 dB	50.1 dB	46.1 dB		
1 MHz	2.6 dB/100m	45.0 dB	41.0 dB	47.8 dB	43.8 dB	12.0 dB	100 ± 15 Ohm
4 MHz	5.6 dB/100m	36.0 dB	32.0 dB	36.0 dB	32.0 dB	12.0 dB	100 ± 15 Ohm
8 MHz	8.5 dB/100m	31.0 dB	28.0 dB	28.3 dB	24.3 dB	12.0 dB	100 ± 15 Ohm
10 MHz	9.7 dB/100m	30.0 dB	26.0 dB	26.2 dB	22.3 dB	12.0 dB	100 ± 15 Ohm
16 MHz	13.1 dB/100m	27.0 dB	23.0 dB	20.1 dB	16.1 dB	10.0 dB	100 ± 15 Ohm

Voltage

UL Voltage Rating
300 V (CMP)

Mechanical Characteristics

Temperature

UL Rating	Operating	Installation	Storage
60°C	-30°C To +60°C	0°C To +50°C	-30°C To +60°C

Bend Radius

Stationary Min.	Installation Min.
5.5 in	11.0 in

Max. Pull Tension:	300 lbs
Bulk Cable Weight:	205 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Flammability / Fire Resistance:	NFPA 262, UL 910 (Plenum), FT6, FT6, IEC 60332-1-2
NEC / UL Compliance:	CMP
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-90-661-2012
NEMA Compliance:	NEMA WC-63.1
Data Category:	Category 3
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 3
CPR Euroclass:	Eca
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Part Number

Non-Plenum Number:	DIW50
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Variants

Item #	Color	Putup Type	Length	UPC
DPLN50 732S1007	Gray			
DPLN50 732CUT	Olive	Cut to Length		612825061007
DPLN50 732CUT	Olive	Cut to Length	1 ft	612825061007

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Print Includes Descending Footage/Meter Markings.
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History

Update and Revision:	Revision Number: 0.355 Revision Date: 09-30-2020
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