

LANmark-350 Plenum

Berk-Tek's LANmark-350 Premium Category 5e UTP cables are ideally suited to support 100BASE-TX Ethernet. Tested up to 450 MHz, the guaranteed performance of this cable far exceeds the ANSI/TIA/EIA-568-B.2 and ISO/IEC 11801 Category 5e horizontal cable requirements for PSNEXT, attenuation, return loss, attenuation-to-crosstalk ratio (ACR) and impedance.

Description

Construction

Bare copper wire insulated with FEP. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit jacketed with flame-retardant PVC.

Standards

- North American: ANSI/TIA/EIA-568-B.2 Category 5e, UL 444 and C22.2 No.214-02
- International: ISO/IEC 11801-2nd Edition Category 5, EU Directive 2002/95/EC (RoHS)

Flame Rating

- Plenum - NFPA 262, CMP
- UL Listed

Applications

Berk-Tek's LANmark-350 Premium Category 5e UTP cable is intended for high speed data applications up to 350 MHz including:

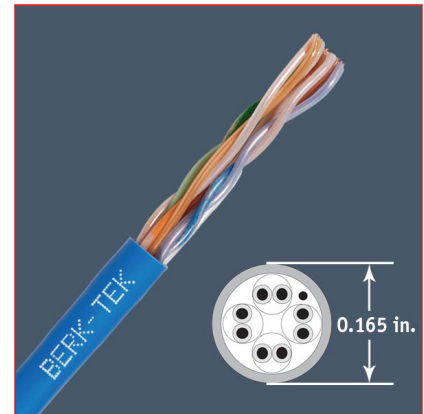
- IEEE 802.3 1000BASE-T 1 Gb/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10 Mb/s

Features

- Small, round design
- ETL verified to TIA/EIA-568-B.2 and ISO/IEC 11801

Benefits

- Reliably supports 100BASE-TX Ethernet
- Reduced installation costs and maintenance
- Characterized to 450 MHz, 350 MHz greater than standard
- Lower bit error rates, increases network efficiency and uptime



Standards

National TIA/EIA-568-B.2

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Characteristics

Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Category	Cat. 5e
Fire safety	Plenum Rated

Technical Data

Technical Data - Physical			Color Code		
			Pair-1	White/Blue	Blue
Conductor	24 AWG Bare Copper		Pair-2	White/Orange	Orange
Conductor diameter-in. (mm)	0.02	(0.52)	Pair-3	White/Green	Green
Insulated Conductor Diameter- in. (mm)	0.035	(0.89)	Pair-4	White/Brown	Brown
Cable diameter-in. (mm)	0.165	(4.2)	Temperature Rating		
Nominal cable weight-lb./kft. (kg/km)	21	(31)			
Max. installation tension-lb. (N)	25	(110)	Installation	0°C to +50°C	
Min. bend radius-in. (mm)	1	(25.4)	Operation	-20°C to +60°C	

Technical Data - Parametric Measurements

Mutual Capacitance	4.4 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.
Skew	25 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	72% nom.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13 +15log (F/100)] 100-350 MHz
DC Resistance Unbalance of a Pair	5% max.

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Technical Data - Electrical Characteristics

FREQ	SRL		RL		INSERTION LOSS		PS-NEXT		NEXT	
	(dB)		(dB)		(dB/100m)		(dB)		(dB)	
MHz	min.	typical	min.	typical	max.	typical	min.	typical	min.	typical
1	25.5	44.7	20.0	38.2	2.0	1.7	68.3	82.7	70.3	89.1
4	25.5	44.9	23.3	36.0	4.0	3.5	59.9	73.3	61.9	81.9
10	25.5	47.7	25.0	39.0	6.4	5.6	53.3	65.9	55.3	75.1
20	25.5	45.9	25.5	47.5	9.2	8.1	48.8	60.6	50.8	66.3
31.25	24.4	55.3	24.4	43.0	11.6	10.1	45.9	59	47.9	65
62.5	22.7	41.6	22.7	39.5	16.8	14.6	41.4	55.7	43.4	62.1
100	21.5	37.3	21.5	35.5	21.7	18.7	38.3	51.4	40.3	57.5
200	19.8	43.1	19.8	46.5	32.1	27.2	33.8	47.7	35.8	53.2
300	18.8	36.1	18.8	35.7	40.5	33.9	31.2	45.2	33.2	53.4
350	18.4	35.4	18.4	35.0	44.4	36.9	30.2	42.2	32.2	48.8
400	18.1	38.0	18.1	34.4	48.0	39.6	29.3	39.4	31.3	45.6
450	17.8	34.7	17.8	34.5	51.5	42.4	28.5	36.2	30.5	43.4

Technical Data - Electrical Characteristics

FREQ	ACR		PS-ACR		ELFEXT		PS-ELFEXT	
	(dB@100m)		(dB@100m)		(dB)		(dB)	
MHz	min.	typical	min.	typical	min.	typical	min.	typical
1	68.3	83	66.3	80.8	66.8	86.2	63.8	77
4	57.3	71	55.3	69.6	54.7	73.2	42.7	64.8
10	48.9	61	46.9	59.8	46.8	65.5	44.8	57
20	41.6	55	39.6	52	40.7	60.8	38.7	51.5
31.25	36.3	50	34.3	48.1	36.9	56.6	34.9	47.8
62.5	26.6	42	24.6	40	30.8	50.5	28.8	42.1
100	18.6	33	16.6	31.2	26.8	45.5	24.8	38.5
200	3.7	21.2	1.7	18.4	20.7	44.7	17.7	37.4
300	—	9.6	—	8.3	17.2	38.1	14.2	31.9
350	—	4.9	—	1.9	15.9	36.4	12.9	30.6
400	—	-1.8	—	-4	14.7	33.4	11.7	27.5
450	—	-8.9	—	-10.6	13.7	36.7	10.7	28.3

IMPORTANT: Berk-Tek performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the table of data shown which are presented to demonstrate our guarantees at "representative" frequencies. Values above 350 MHz are for engineering information. Limited combustible version also available. Other jacket colors available.

Product List

☎ = Make to order, 🏭 = Make to stock

Part Number	Description	Type of cable	Colour	Packaging	Field of application
🏭 10032059	LANmark-350 Plenum	UTP	Yellow	Reel	Indoor

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Part Number	Description	Type of cable	Colour	Packaging	Field of application
10032060	LANmark-350 Plenum	UTP	Yellow	Box	Indoor
10032058	LANmark-350 Plenum	UTP	Yellow	Reel in a box	Indoor
10032064	LANmark-350 Plenum	UTP	Blue	Reel	Indoor
10032065	LANmark-350 Plenum	UTP	Blue	Box	Indoor
10032063	LANmark-350 Plenum	UTP	Blue	Reel in a box	Indoor
10032085	LANmark-350 Plenum	UTP	Green	Reel	Indoor
10032086	LANmark-350 Plenum	UTP	Green	Box	Indoor
10032084	LANmark-350 Plenum	UTP	Green	Reel in a box	Indoor
10032078	LANmark-350 Plenum	UTP	Grey	Reel	Indoor
10032079	LANmark-350 Plenum	UTP	Grey	Box	Indoor
10032077	LANmark-350 Plenum	UTP	Grey	Reel in a box	Indoor
10032087	LANmark-350 Plenum	UTP	Violet	Reel	Indoor
10032088	LANmark-350 Plenum	UTP	Violet	Box	Indoor
10047430	LANmark-350 Plenum	UTP	Violet	Reel in a box	Indoor
10032100	LANmark-350 Plenum	UTP	Brown	Reel	Indoor
10032101	LANmark-350 Plenum	UTP	Brown	Box	Indoor
10032099	LANmark-350 Plenum	UTP	Brown	Reel in a box	Indoor
10032068	LANmark-350 Plenum	UTP	Pink	Reel	Indoor
10032069	LANmark-350 Plenum	UTP	Pink	Box	Indoor
10032067	LANmark-350 Plenum	UTP	Pink	Reel in a box	Indoor
10032071	LANmark-350 Plenum	UTP	White	Reel	Indoor
10032072	LANmark-350 Plenum	UTP	White	Box	Indoor
10032070	LANmark-350 Plenum	UTP	White	Reel in a box	Indoor
10032081	LANmark-350 Plenum	UTP	Orange	Reel	Indoor
10032082	LANmark-350 Plenum	UTP	Orange	Box	Indoor
10032080	LANmark-350 Plenum	UTP	Orange	Reel in a box	Indoor
10032075	LANmark-350 Plenum	UTP	Red	Reel	Indoor
10032076	LANmark-350 Plenum	UTP	Red	Box	Indoor
10032074	LANmark-350 Plenum	UTP	Red	Reel in a box	Indoor
10032102	LANmark-350 Plenum	UTP	Black	Reel	Indoor
10034514	LANmark-350 Plenum	UTP	Black	Box	Indoor
10067869	LANmark-350 Plenum	UTP	Black	Reel in a box	Indoor

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Selling delivery information

PLEASE NOTE: In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.