

**Contact**

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## NEW LANmark-1000 Category 6 Plenum

LANmark-1000 has been improved to offer best-in-class electrical performance. Berk-Tek's engineers completely redesigned LANmark-1000 so that all crosstalk parameters could be improved by four dB. As a result, the Power Sum Attenuation to Crosstalk ratio (PSACR) is nearly 3 times better (at 250 MHz) allowing for much greater signal strength and less vulnerability to noise interference. At Berk-Tek, we understand that your business runs through us.

### Description

#### Construction

23 AWG bare copper wire insulated with FEP. Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit, jacketed with flame-retardant PVC.

#### Standards

North American: ANSI/TIA/EIA-568-B.2-1 Category 6, UL 444 and C22.2 No. 214-02

International: ISO/IEC 11801-2nd Edition Category 6, EU Directive 2002/95/EC (RoHS)

#### Flame Rating

Plenum - NFPA 262, CMP, UL Listed

#### Applications:

Berk-Tek's LANmark-1000 UTP cable is intended for high speed data applications including:

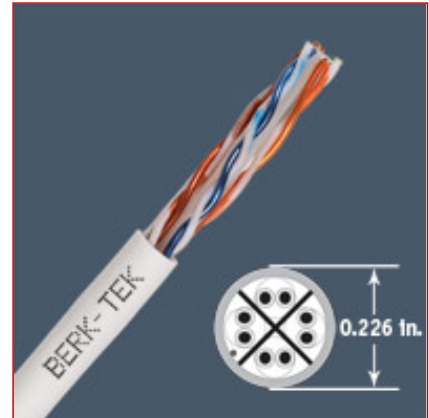
- IEEE 802.3 1000BASE-T 1 Gb/s
- TIA/EIA-854 1000BASE-TX 1 Gb/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10 Mb/s

#### Features

- Full Power Sum Performance
- Documented balance characteristics (LCL, LCTL)
- ETL verified to ANSI/TIA/EIA-568-B.2-1 Category 6 standard

#### Benefits

- Optimal support for Gigabit Ethernet with headroom
- Power sum characterization gives highest performance using existing applications
- Provides additional bandwidth required for future applications
- Addition of balance requirements improves overall cable performance and reduces cable emissions which results in reduced transmission errors
- Characterized to 550 MHz, 300 MHz greater than the standard



#### Standards

**International** ISO/IEC 11801  
**National** TIA/EIA-568-B.2



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### Characteristics

<b>Construction characteristics</b>	
Type of cable	UTP
<b>Dimensional characteristics</b>	
Length per reel	1000.0 ft
Number of pairs	4
<b>Usage characteristics</b>	
Field of application	Indoor
Category	Cat. 6
Fire safety	Plenum Rated

### Technical Data - Physical

Technical Data - Physical			Color Code		
			<b>Pair-1</b>	<b>White/Blue</b>	<b>Blue</b>
<b>Conductor</b>	23 AWG Bare Copper		<b>Pair-2</b>	<b>White/Orange</b>	<b>Orange</b>
<b>Conductor diameter-in. (mm)</b>	0.022	(0.56)	<b>Pair-3</b>	<b>White/Green</b>	<b>Green</b>
<b>Insulated Conductor Diameter- in. (mm)</b>	0.037	(0.94)	<b>Pair-4</b>	<b>White/Brown</b>	<b>Brown</b>
<b>Cable diameter-in. (mm)</b>	0.226	(5.7)	<b>Temperature Rating</b>		
<b>Nominal cable weight-lb./kft. (kg/km)</b>	29	(44.3)	<b>Installation</b>	0°C to +50°C	
<b>Max. installation tension-lb. (N)</b>	25	(110)	<b>Operation</b>	-20°C to +60°C	
<b>Min. bend radius-in. (mm)</b>	1	(25.4)			

### Parametric Measurements

<b>Mutual Capacitance</b>	4.4 nF/100 m nom.
<b>DC resistance</b>	9.38 Ohms/100 m max.
<b>Skew</b>	35 ns/100 m max.
<b>Pair to ground Unbalance</b>	330 pF/100 m max.
<b>Velocity of Propagation</b>	72% nom. Plenum
<b>Input Impedance</b>	100 ± 13% 0.772-100 MHz 100 ± [13 +15log (F/100)] 100-350 MHz



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### Technical Data - Electrical

FREQ MHz	SRL (dB)		RL (dB)		INSERTION LOSS (dB/100m)		PS-NEXT (dB)		NEXT (dB)		ACR (dB@100m)	
	min.	typical	min.	typical	max.	typical	min.	typical	min.	typical	min.	typical
1	26.0	34.7	20.0	41.2	2.0	1.7	77.3	88.4	79.3	95.6	77.3	88.2
4	26.0	43.1	23.6	38.7	3.8	3.5	68.3	82.3	70.3	91.6	66.5	80.1
10	26.0	45.4	26.0	40.7	5.9	5.6	62.3	74.7	64.3	80.4	58.4	71.3
16	26.0	39.4	26.0	41.7	7.5	7.2	59.3	75.8	61.3	82.7	53.8	70.3
20	26.0	41.8	26.0	46.0	8.4	8.1	57.8	69.9	59.8	76.3	51.4	63.9
31.25	25.0	45.5	25.0	43.6	10.6	10.1	54.9	67.7	56.9	75.7	46.3	59.1
62.5	23.5	39.4	23.5	37.2	15.3	14.6	50.4	67.3	52.4	74.2	37.1	54.3
100	22.5	37.5	22.5	35.3	19.7	18.7	47.3	63.8	49.3	71.4	29.6	47.0
250	20.5	34.5	20.5	32.5	32.6	30.7	41.3	56.0	43.3	62.4	10.7	26.6
350	19.8	32.2	19.8	30.6	39.5	36.9	39.2	52.1	41.2	59.5	1.7	15.6
500	19.0	33.6	19.0	31.2	48.6	45.1	36.8	51.6	38.8	57.7	—	7.0
550	18.8	33.8	18.8	32.3	51.4	47.3	36.2	50.5	38.2	55.7	—	3.6




RL, SRL, IL, NEXT, PSNEXT, ELFEXT, PSELFEXT and impedance are guaranteed to 350 MHz. Data above 350 MHz is for engineering information.

### Technical Data - Electrical

FREQ MHz	PS-ACR (dB@100m)		ELFEXT (dB)		PS-ELFEXT (dB)		LCL/TCL (dB)	EL TCTL (dB)
	min.	typical	min.	typical	min.	typical	min.	min.
1	75.3	86.8	72.8	95.7	69.8	87.4	50.0	35.0
4	64.5	78.8	60.7	83.7	57.7	77.1	44.0	23.0
10	56.4	69.1	52.8	74.8	49.8	68.1	40.0	15.0
16	51.7	68.7	48.7	70.0	45.7	63.3	38.0	10.9
20	49.4	61.9	46.7	66.9	43.7	60.3	37.0	9.0
31.25	44.3	57.7	42.9	62.3	39.9	55.7	35.1	5.5
62.5	35.1	52.7	36.8	55.0	33.8	49.5	32.0	—
100	27.6	45.0	32.8	55.1	29.8	45.8	30.0	—
250	8.7	24.7	24.8	40.6	21.8	33.8	26.0	—
350	—	14.2	21.9	43.6	18.9	33.0	24.6	—
500	—	4.5	18.8	36.0	15.8	27.4	23.0	—
550	—	0.8	17.9	39.4	14.9	29.5	22.6	—

RL, SRL, IL, NEXT, PSNEXT, ELFEXT, PSELFEXT and impedance are guaranteed to 350 MHz. Data above 350 MHz is provided for engineering information.

### Product List

Part Number	Description	Colour	Packaging
 10032025	LANmark-1000 Plenum	Grey	Reel
 10032026	LANmark-1000 Plenum	Grey	Box
 10032089	LANmark-1000 Plenum	Yellow	Reel

☎ = Make to order, 📦 = Make to stock

## NEW LANmark-1000 Category 6 Plenum

Part Number	Description	Colour	Packaging
☰ 10032090	LANmark-1000 Plenum	Yellow	Box
☰ 10032091	LANmark-1000 Plenum	White	Reel
☰ 10032092	LANmark-1000 Plenum	White	Box
☰ 10032093	LANmark-1000 Plenum	Blue	Reel
☰ 10032094	LANmark-1000 Plenum	Blue	Box
☰ 10032095	LANmark-1000 Plenum	Red	Reel
☰ 10032096	LANmark-1000 Plenum	Green	Reel
☰ 10032097	LANmark-1000 Plenum	Green	Box
☰ 10032108	LANmark-1000 Plenum	Black	Reel
☰ 10032120	LANmark-1000 Plenum	Pink	Reel
☰ 10033809	LANmark-1000 Plenum	Violet	Box
☰ 10033811	LANmark-1000 Plenum	Pink	Box
☰ 10033897	LANmark-1000 Plenum	Orange	Reel
☰ 10033996	LANmark-1000 Plenum	Red	Box
☰ 10033997	LANmark-1000 Plenum	Orange	Box
☰ 10034197	LANmark-1000 Plenum	Violet	Reel
☰ 10035304	LANmark-1000 Plenum	Black	Box
☰ 10043530	LANmark-1000 Plenum	Brown	Box
☰ 10065427	LANmark-1000 Plenum	Yellow	Reel in a box
☰ 10065423	LANmark-1000 Plenum	Blue	Reel in a box
☰ 10065424	LANmark-1000 Plenum	White	Reel in a box
☰ 10065425	LANmark-1000 Plenum	Grey	Reel in a box
☰ 10065428	LANmark-1000 Plenum	Green	Reel in a box
☰ 10066098	LANmark-1000 Plenum	Orange	Reel in a box
☰ 10066099	LANmark-1000 Plenum	Black	Reel in a box
☰ 10081066	LANmark-1000 Plenum	Red	Reel in a box
☰ 10083461	LANmark-1000 Plenum	Violet	Reel in a box
☰ 10120387	LANmark-1000 Plenum	Pink	Reel in a box

☎ = Make to order, ☰ = Make to stock

### 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.

