

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:

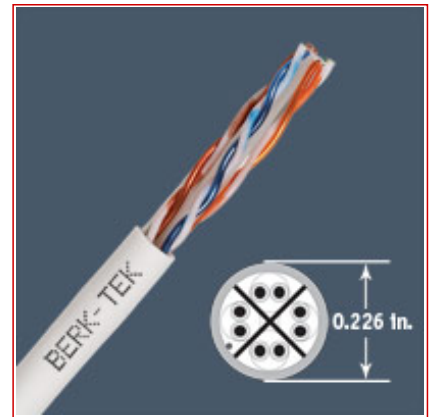
- IEEE 802.3 1000BASE-T 1 Gb/s
- TIA/EIA-854 1000BASE-TX 1 Gb/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10 Mb/s

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

Characteristics

Construction characteristics	
Type of cable	UTP
Dimensional characteristics	
Length per reel	1000.0 ft

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Dimensional characteristics	
Number of pairs	4
Usage characteristics	
Field of application	Indoor
Category	Cat. 6
Fire safety	Plenum Rated

Technical Data - Physical

Technical Data - Physical			Color Code		
			Pair-1	White/Blue	Blue
Conductor	23 AWG Bare Copper		Pair-2	White/Orange	Orange
Conductor diameter—in. (mm)	0.022	(0.56)	Pair-3	White/Green	Green
Insulated Conductor Diameter- in. (mm)	0.037	(0.94)	Pair-4	White/Brown	Brown
Cable diameter—in. (mm)	0.226	(5.7)			
Nominal cable weight—lb./kft. (kg/km)	29	(44.3)	Temperature Rating		
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	

Parametric Measurements

Mutual Capacitance	4.4 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.
Skew	35 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	72% nom. Plenum
Input Impedance	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



☎=Make to order, 📦=Make to stock

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

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Part Number	Description	Colour	Packaging
 10032089	LANmark-1000 Plenum	Yellow	Reel
 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

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Selling delivery information

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