

LANmark-2000 Premium Category 6 Plenum Rated

LANmark-2000 Enhanced Category 6 Plenum

Part Number: 10167309

LANMARK-2000 is Berk-Tek's highest-performing Premium Category 6 cable. Every key electrical property has been improved when measured against the TIA/EIA-568-C.2 Category 6 standard for transmitted signals, making them stronger and less susceptible to outside interference. LANmark-2000 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously. It is also ideal for Power over Ethernet (PoE) applications where a larger gauge for greater current carrying capacity is needed.

Description

Berk-Tek LANmark-2000, Performance Guaranteed

Before any cable can display the **Berk-Tek LANmark-2000** legend, it must pass factory tests with **a minimum of 10dB of crosstalk margin beyond the CAT 6 standard for NEXT, PSNEXT, ACR and PSACR**. If the margin is missing, so is the legend. That is our guarantee to you.

Your business demands continuous performance from your IT network, so our specifications aren't simply numbers on the page. They define the way that we do business. This means that you are **guaranteed** industry-leading performance and quality for all Berk-Tek products.

Some other manufacturers talk about "typical" values, at Berk-Tek, we hold ourselves to a higher standard. We won't talk about typicals, we talk about what is true, guaranteed, and independently verified.

Keep your business running by relying on Berk-Tek.

Berk-Tek ...Because Your Business Runs Through Us.

Construction

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.

Flame Rating

Plenum; NFPA 262, CMP

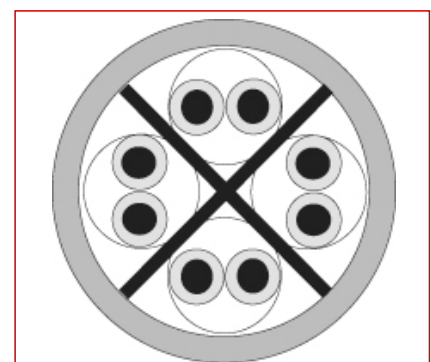
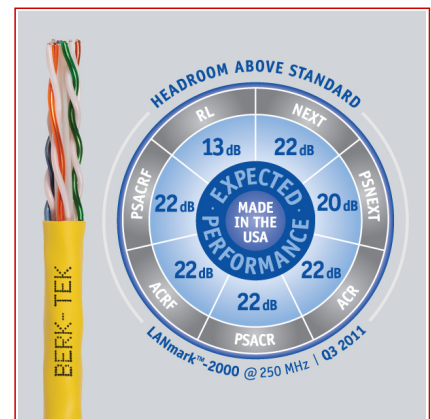
UL Listed

Features

- Full duplex operation capable over four cable pairs
- Increased usable bandwidth vs. the category 6 standard
- Documented balance characteristics (LCL/TCL, EL TCTL)
- Reduced attenuation (Insertion Loss)
- ETL verified to ANSI/TIA/EIA-568-C.2 Category 6 standard
- RoHS Compliant

Benefits

- Provides additional performance margin to reliably support Gigabit Ethernet in high-noise environments
- Provides bandwidth required for multimedia, broadband video analog video and other future applications
- Balance characteristics improve overall cable performance and reduce cable emissions which results in reduced transmission errors
- Reduced diameter allows for more efficient space utilization
- Characterized to 600 MHz, 350 MHz greater than the standard
- Improved ACR means stronger signal reaches the receiver resulting in cleaner data and video transmission



Standards

International ISO/IEC 11801

National ANSI/TIA-568-C.2; UL 444

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Characteristics

Construction characteristics	
Type of cable	UTP
Colour	Yellow
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Packaging	Reel in a box
Field of application	Indoor
Category	Cat. 6e
Fire safety	Plenum Rated

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LANmark-2000 Parametric Data: Electrical

FREQ MHz	RL (dB)			NEXT (dB)			PSNEXT (dB)		
	TIA Spec	Product Guarantee	Expected Performance	TIA Spec	Product Guarantee	Expected Performance	TIA Spec	Product Guarantee	Expected Performance
1	20.0	20.0	31.5	74.3	84.3	95.7	72.3	82.3	91.7
4	23.0	23.6	32.9	65.3	75.3	88.7	63.3	73.3	85.2
10	25.0	26.0	31.2	59.3	69.3	81.5	57.3	67.3	77.7
16	25.0	26.0	35.3	56.2	66.3	79.1	54.2	64.3	75.0
20	25.0	26.0	35.9	54.8	64.8	78.0	52.8	62.8	73.8
31.25	23.6	25.0	34.3	51.9	61.9	74.7	49.9	59.9	70.8
62.5	21.5	23.5	33.6	47.4	57.4	69.9	45.4	55.4	66.0
100	20.1	22.5	32.2	44.3	54.3	66.6	42.3	52.3	62.9
150	18.9	21.6	32.2	41.7	51.7	63.7	39.7	49.7	59.8
200	18.0	21.0	31.8	39.8	49.8	61.3	37.8	47.8	57.7
250	17.3	20.5	30.0	38.3	48.4	60.0	36.3	46.4	55.8
300	—	20.1	29.2	—	47.2	58.5	—	45.2	54.6
350	—	19.8	28.4	—	46.2	57.5	—	44.2	53.6
400	—	19.5	27.1	—	45.3	56.0	—	43.3	52.2
450	—	19.2	26.5	—	44.5	55.3	—	42.5	51.4
500	—	19.0	26.2	—	43.8	54.1	—	41.8	50.2

FREQ MHz	IL (dB/100m)			ACR (dB/100m)			PSACR (dB/100m)		
	TIA Spec	Product Guarantee	Expected Performance	TIA Spec	Product Guarantee	Expected Performance	TIA Spec	Product Guarantee	Expected Performance
1	2.0	2.0	1.7	72.3	82.4	91.7	70.3	80.4	89.8
4	3.8	3.7	3.4	61.5	71.6	83.4	59.5	69.6	81.5
10	6.0	5.8	5.5	53.3	63.5	73.9	51.3	61.5	72.2
16	7.6	7.3	7.0	48.7	58.9	69.4	46.7	56.9	68.0
20	8.5	8.2	7.8	46.3	56.6	68.2	44.3	54.6	66.0
31.25	10.7	10.4	9.8	41.2	51.6	62.3	39.2	49.6	60.9
62.5	15.4	15.0	14.1	32.0	42.4	53.2	30.0	40.4	51.5
100	19.8	19.2	18.0	24.5	35.1	46.2	22.5	33.1	44.6
150	24.7	24.0	22.4	16.9	27.7	38.1	14.9	25.7	37.1
200	29.0	28.2	26.1	10.8	21.6	32.8	8.8	19.6	31.0
250	32.8	31.9	29.4	5.5	16.4	27.0	3.5	14.4	25.9
300	—	35.4	32.4	—	11.8	23.0	—	9.8	21.6
350	—	38.6	35.2	—	7.6	19.3	—	5.6	17.6
400	—	41.6	37.8	—	3.8	15.6	—	1.8	13.6

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450	—	44.7	40.5	—	-0.1	11.7	—	-2.1	10.0
500	—	47.6	43.0	—	-3.8	7.8	—	-5.8	5.9

LANmark-2000 Parametric Data: Electrical (cont.)

FREQ MHz	ACRF (dB/100m)			PSACRF (dB/100m)			LCL/TCL	EL TCTL
	TIA Spec	Product Guarantee	<u>Expected Performance</u>	TIA Spec	Product Guarantee	<u>Expected Performance</u>	Product Guarantee	Product Guarantee
1	67.8	76.8	89.4	64.8	73.8	85.3	40.0	35.0
4	55.8	64.7	78.0	52.8	61.7	73.9	40.0	23.0

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10	47.8	56.8	70.5	44.8	53.8	66.3	40.0	15.0
16	43.7	52.7	66.6	40.7	49.7	62.6	38.0	10.9
20	41.8	50.8	64.6	38.8	47.8	60.9	37.0	9.0
31.25	37.9	46.9	61.2	34.9	43.9	57.2	35.1	5.1
62.5	31.9	40.8	54.8	28.9	37.8	51.0	32.0	—
100	27.8	36.8	50.6	24.8	33.8	46.6	30.0	—
150	24.3	33.3	47.5	21.3	30.3	43.5	28.2	—
200	21.8	30.7	44.3	18.8	27.7	40.7	27.0	—
250	19.8	28.8	42.1	16.8	25.8	38.4	26.0	—
300	—	27.2	40.7	—	24.2	37.0	25.2	—
350	—	25.9	39.2	—	22.9	35.8	24.6	—
400	—	24.8	38.0	—	21.8	33.8	24.0	—
450	—	23.7	36.1	—	20.7	32.1	23.5	—
500	—	22.8	34.9	—	19.8	30.7	23.0	—

LANmark-2000 Plenum UTP Physical Data

Technical Data - Physical			Color Code		
Conductor	23 AWG Bare Copper		Pair-1	White/Blue	Blue
Conductor diameter - in. (mm)	0.022	(0.58)	Pair-2	White/Orange	Orange
Insulated conductor dia.-in.(mm)	0.037	(1.04)	Pair-3	White/Green	Green
Cable diameter - in. (mm)	0.220	(5.69)	Pair-4	White/Brown	Brown
Nom. cable wt.-lb./kft. (kg/km)	30	(13.2)	Temperature Rating (degrees C)		
Max. installation tension - lb. (N)	25	(110)	Installation	0 to +50	
Min. bend radius - in. (mm)	1	(25.4)	Operation	-20 to +60	

LANmark-2000 Plenum Technical Data - Parametric Measurements

Mutual Capacitance	5.6 nF/100 m max.
DC Resistance	9.38 Ohms/100 m max.
Skew	45 ns/100 m max.
Pair to Ground Unbalance	330 pF/100 m max.
Velocity of Propagation	72% nom.
DC Resistance unbalance	5% max.

Supported Category 6 Applications

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

Contact

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IEEE 802.3

10BASE-T

10 Mb/s

Selling delivery information

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