

Contact

Copper LAN Product Inquiry
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LANmark-2000 Premium Category 6 Plenum Rated

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Part Number: 10163780

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 multi-media 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.

Based on Berk-Tek's advanced testing, LANmark-2000 has a Converged Application Score (CA Score) of 8.0 and is a better choice for high bandwidth applications and to support a network with even more devices using PoE. For more information on CA Score, please click [here](#).

Perform Beyond Expectations... Choose Berk-Tek.

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



Standards

International ISO/IEC 11801

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

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- 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

Characteristics

Construction characteristics	
Type of cable	UTP
Colour	Blue
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	CMP - Plenum Rated

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LANmark-2000 Parametric Data: Electrical

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)		LCL/TCL
FQ	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	20.00	20.00	74.30	84.30	72.30	82.30	67.80	76.80	50.00
4	23.00	23.60	65.30	75.30	63.30	73.30	55.80	64.80	44.00
10	25.00	26.00	59.30	69.30	57.30	67.30	47.80	56.80	40.00
16	25.00	26.00	56.20	66.30	54.20	64.30	43.70	52.70	38.00
20	25.00	26.00	54.80	64.80	41.80	62.80	41.80	50.80	37.00
31.25	23.60	25.00	51.90	61.90	49.90	59.90	37.90	46.90	35.10
62.5	21.50	23.50	47.40	57.40	45.40	55.40	31.90	40.90	32.00
100	20.10	22.50	44.30	54.30	42.30	52.30	27.80	36.80	30.00
150	18.90	21.60	41.70	51.70	39.70	49.70	24.30	33.30	28.20
200	18.00	21.00	39.80	49.80	37.80	47.80	21.80	30.80	27.00
250	17.30	20.50	38.30	48.30	36.30	46.30	19.80	28.80	26.00
350	—	19.80	—	46.20	—	44.20	—	25.90	24.60
400	—	19.50	—	45.30	—	43.30	—	24.80	24.00
500	—	19.00	—	43.80	—	41.80	—	22.80	23.00
600	—	18.60*	—	42.60*	—	40.60*	—	21.20*	23.50*
	IL (dB/100 m)		ACR (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)		EL TCTL
FQ	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	2.00	2.00	72.20	82.30	70.30	80.30	64.80	73.80	35.00
4	3.80	3.70	61.50	71.60	59.50	69.60	52.80	61.70	23.00
10	6.00	5.80	53.40	63.50	51.30	61.50	44.80	53.80	15.00
16	7.60	7.40	48.80	58.90	46.70	56.90	40.70	49.70	10.90
20	8.50	8.20	46.40	56.60	44.30	54.60	38.80	47.80	9.00
31.25	10.70	10.40	41.40	51.60	39.20	49.50	37.90	43.90	—
62.50	15.40	15.00	32.40	42.40	30.00	40.40	28.90	37.90	—
100	19.80	19.30	25.20	35.10	22.50	33.00	24.80	33.80	—
150	24.70	24.10	16.90	27.70	14.90	25.70	21.30	30.30	—
200	29.00	28.20	10.80	21.60	8.80	19.60	18.80	27.80	—
250	32.80	32.00	7.30	16.40	3.50	14.40	16.80	25.80	—
350	—	38.70	—	7.50	—	5.40	13.90	22.90	—
400	—	41.80	—	3.50	—	1.50	12.80	21.80	—
500	—	47.60	—	-3.80	—	-5.80	10.80	19.80	—
600	—	53.00*	—	-10.40*	—	-12.40*	—	18.20*	—

*Values provided for reference only

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	(0.56)	Pair-2	White/Orange	Orange
Insulated conductor dia.-in.(mm)	0.037	(0.94)	Pair-3	White/Green	Green
Cable diameter - in. (mm)	0.22	(5.56)	Pair-4	White/Brown	Brown
Nom. cable wt.-lb./kft. (kg/kft)	30	(13.61)	Temperature Rating (degrees C)		
Max. installation tension - lb. (N)	25	(110)	Installation	0 to +50	
Min. bend radius - in. (mm)	1.00	(25.40)	Operation	-20 to +90	

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LANmark-2000 Plenum Technical Data - Parametric Measurements

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

LANmark-2000 Converged Application Score

A cable's Converged Application Score (CA Score) is an indicator of how well IP traffic is protected and how much heat rise there is when the cable undergoes PoE testing. The score is represented by a numeric value between 1 and 10, with 1 being the lowest and 10 being the highest. In reality, a score of 1 is unattainable because it would represent no connection, as is a score of 10 because it would mean zero heat rise with high power PoE. CA Scores range between 2 and 9.

LANmark-2000

CA Score	Score	> 3.6	3.6 - 5.5	5.6 - 6.5	6.6 - 7.5	7.6 - 8.5	8.6 +
	Performance	Unacceptable	Poor	Limited	Good	Better	Best
	Heat Rise	Severe	Significant	Moderate	Moderate	Moderate	Low

What does the CA Score tell you? A performance rating of "Poor" (less than 3.6) means that there were consistent noticeable flaws (dropped frames, media loss, etc) in the applications tested. As you move towards higher performance scores, you would notice fewer and fewer flaws, until you reach a score of 9, which is almost flawless. PoE testing is also an important factor; cables that experienced less temperature rise achieve higher CA Scores.

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
IEEE 802.3	10BASE-T	10 Mb/s
IEEE 802.3 af	PoE	1 Gb/s
IEEE 802.3 at	PoE+, Type 1 & 2	1 Gb/s

LANmark-2000 UTP Plenum Jacket Legend

BERK-TEK LANMARK-2000 23 AWG CMP 90C C(UL)US ETL VERIFIED TIA-568-C.2 CAT 6 [DATECODE] [SEQ#] FT

Selling 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.