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LANmark-6 Plenum Rated

LANmark-6 UTP Plenum

Part Number: 10136749

The Berk-Tek LANmark-6 features a reduced diameter compared to other Category 6 UTP cables. This is an ANSI/TIA/EIA Category 6 verified cable, constructed without the center spline for easy installation and termination. LANmark-6 is capable of transmitting applications such as 1000BASE-T. It is ideal for network applications that extend to 250 MHz. LANmark-6 is available in both CMP and CMR and conforms to ANSI/TIA/EIA 568-B.2-1 Category 6 and ISO/IEC 11801 2nd Edition Class E Category 6 requirements.

Description

Berk-Tek LANmark-6 UTP, Performance Guaranteed

Before any cable can display the **Berk-Tek LANmark-6 UTP** legend, it must pass factory tests with **a minimum of 2dB 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-6 has a Converged Application Score (CA Score) of 6.4 and is recommended for short-term installations, basic desktop and phone applications, and a low density of connected devices. For more information on CA Score, please click [here](#).

Perform Beyond Expectations... Choose Berk-Tek

Construction: 24 AWG 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.

Flame Rating: Plenum -NFPA 262, CMP

Features

- Inexpensive compact design
- Meets the requirements of ANSI/TIA/EIA-568-C.2
- Characterized to 500 MHz, 250 MHz greater than the standard
- Delivered in compact, strong, easy to identify boxes
- RoHS Compliant

Benefits

- Provides Category 6 performance
- Cost effective Category 6 solution
- Provides additional usable bandwidth required for future applications
- Superior box design allows cable to be pulled easily from the box with minimum kinking
- Compact box design takes up less shelf space.
- Clearly identified packaging eliminates potential confusion



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	Box
Field of application	Indoor
Category	Cat. 6
Fire safety	CMP - Plenum Rated

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LANmark-6 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	76.30	72.30	74.30	67.80	67.80	40.00
4	23.00	23.00	65.30	67.30	63.30	65.30	55.80	55.80	40.00
10	25.00	25.00	59.30	61.30	57.30	59.30	47.80	47.80	40.00
16	25.00	25.00	56.20	58.30	54.20	56.30	43.70	43.70	38.00
20	25.00	25.00	54.80	56.80	41.80	54.80	41.80	41.80	37.00
31.25	23.60	23.60	51.90	53.90	49.90	51.90	37.90	37.90	35.10
62.5	21.50	21.50	47.40	49.40	45.40	47.40	31.90	31.90	32.00
100	20.10	20.10	44.30	46.30	42.30	44.30	27.80	27.80	30.00
150	18.90	18.90	41.70	43.70	39.70	41.70	24.30	24.30	28.20
200	18.00	18.00	39.80	41.80	37.80	39.80	21.80	21.70	27.00
250	17.30	17.30	38.30	40.30	36.30	38.30	19.80	19.80	26.00
300	—	16.80*	—	39.10*	—	37.10*	—	18.30*	25.20
350	—	16.30*	—	38.20*	—	36.20*	—	16.90*	24.60*
400	—	15.90*	—	37.30*	—	35.30*	—	15.80*	24.00*
450	—	15.50*	—	36.50*	—	34.50*	—	14.70*	23.50*
500	—	15.20*	—	35.80*	—	33.80*	—	13.80*	23.00*
	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	74.30	70.30	72.30	64.80	64.80	35.00
4	3.80	3.80	61.50	63.50	59.50	61.50	52.80	52.80	23.00
10	6.00	6.00	53.40	55.40	51.30	53.40	44.80	44.80	15.00
16	7.60	7.60	48.80	50.70	46.70	48.70	40.70	40.70	10.90
20	8.50	8.50	46.40	48.40	44.30	46.40	38.80	38.80	9.00
31.25	10.70	10.70	41.40	43.30	39.20	41.30	37.90	34.90	—
62.50	15.40	15.40	32.40	34.00	30.00	32.00	28.90	28.90	—
100	19.80	19.80	25.20	26.60	22.50	24.60	24.80	24.80	—
150	24.70	24.60	16.90	19.10	14.90	17.10	21.30	21.30	—
200	29.00	29.00	10.80	12.90	8.80	10.90	18.80	18.70	—
250	32.80	32.80	7.30	7.50	3.50	5.50	16.80	16.80	—
300	—	36.40*	—	2.70*	—	—	—	15.30*	—
350	—	39.80*	—	-1.60*	—	—	13.90	13.90*	—
400	—	43.00*	—	-5.70*	—	—	12.80	12.80*	—
450	—	46.00*	—	-9.50*	—	—	—	11.70*	—
500	—	48.90*	—	-13.10*	—	—	10.80	10.80*	—

*Values provided for reference only

LANmark-6 Plenum UTP Physical Data

Technical Data - Physical			Color Code		
Conductor	24 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)	0.041	(1.04)	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)	27	(12.25)	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 +75	

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LANmark-6 Plenum Technical Data - Parametric Measurements

Mutual Capacitance	5.2 nF/100 m max.	Pair to Ground Unbalance	330 pF/100 m max.
DC Resistance	9.38 Ohms/100 m max.	Velocity of Propagation	67% nom.
Skew	45 ns/100 m max.	DC Resistance unbalance	5% max.

LANmark-6 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.

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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-6 UTP Plenum Jacket Legend

BERK-TEK LANMARK-6 24 AWG CMP 75C (UL)US ETL VERIFIED TIA-568-C.2 CAT 6 [ANY APPLICABLE PATENTS] [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.