Berk-Tek

A NEXANS COMPANY

LANmark-1000 Enhanced Category 6 Plenum Rated

LANmark-1000 Plenum
Part Number: 10032090

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

Berk-Tek LANmark-1000, Performance Guaranteed

Before any cable can display the **Berk-Tek LANmark-1000** legend, it must pass factory tests with *a minimum of 5dB 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

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.
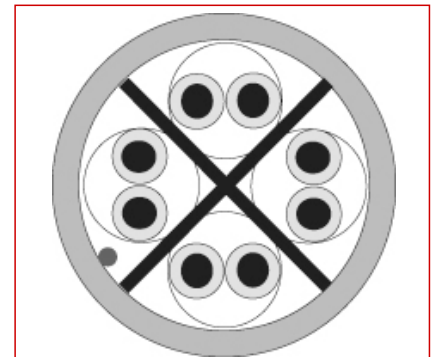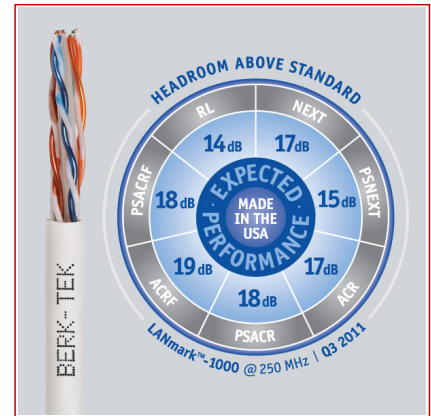
Flame Rating

Plenum - NFPA 262, CMP, UL Listed

Features

- Full Power Sum Performance
- Documented balance characteristics (LCL, LCTL)
- ETL verified to ANSI/TIA/EIA-568-C.2
- RoHS Compliant

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 ANSI/TIA-568-c.2 Category 6; 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	Plenum Rated

Berk-Tek®
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Part Number: 10032090

LANmark-1000 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	32.0	74.3	79.3	93.0	72.3	77.3	89.3
4	23.0	23.6	32.9	65.3	70.3	83.5	63.3	68.3	79.8
10	25.0	26.0	35.4	59.3	64.3	77.1	57.3	62.3	73.4
16	25.0	26.0	37.4	56.2	61.3	73.7	54.2	59.3	70.2
20	25.0	26.0	36.8	54.8	59.8	72.8	52.8	57.8	69.0
31.25	23.6	25.0	36.9	51.9	56.9	69.2	49.9	54.9	66.0
62.5	21.5	23.5	34.3	47.4	52.4	65.2	45.4	50.4	61.3
100	20.1	22.5	32.8	44.3	49.3	62.2	42.3	47.3	58.3
150	18.9	21.6	31.5	41.7	46.7	59.2	39.7	44.7	55.3
200	18.0	21.0	31.7	39.8	44.8	57.1	37.8	42.8	53.2
250	17.3	20.5	31.2	38.3	43.4	55.5	36.3	41.4	51.6
300	—	20.1	29.8	—	42.2	54.2	—	40.2	50.4
350	—	19.8	29.2	—	41.2	52.7	—	39.2	49.0
400	—	—	28.4	—	—	51.7	—	—	47.8
450	—	—	27.4	—	—	49.9	—	—	45.6
500	—	—	26.8	—	—	47.9	—	—	43.6

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	77.3	89.4	70.3	75.3	87.5
4	3.8	3.8	3.5	61.5	66.6	77.6	59.5	64.6	76.1
10	6.0	5.9	5.6	53.3	58.4	69.2	51.3	56.4	67.7
16	7.6	7.5	7.1	48.7	53.8	64.6	46.7	51.7	62.9
20	8.5	8.4	8.0	46.3	51.4	62.4	44.3	49.4	61.0
31.25	10.7	10.6	10.0	41.2	46.4	57.5	39.2	44.3	55.7
62.5	15.4	15.3	14.4	32.0	37.1	48.2	30.0	35.1	46.7
100	19.8	19.7	18.4	24.5	29.7	41.2	22.5	27.6	39.6
150	24.7	24.5	22.8	16.9	22.2	33.6	14.9	20.2	32.2
200	29.0	28.8	26.7	10.8	16.0	27.8	8.8	14.0	26.1
250	32.8	32.6	30.1	5.5	10.8	22.7	3.5	8.7	21.0
300	—	36.1	33.1	—	6.1	18.3	—	4.1	16.6
350	—	39.4	36.0	—	1.8	14.4	—	-0.2	12.5
400	—	—	38.7	—	—	10.1	—	—	8.4

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LANmark-1000 Parametric Data: Electrical (cont)

FREQ MHz	ACRF (dB/100m)			PSACRF (dB/100m)			LCL/TCL	EL TCTL
	TIA Spec	Product Guarantee	Expected Performance	TIA Spec	Product Guarantee	Expected Performance	Product Guarantee	Product Guarantee
450	—	—	41.4	—	—	4.9	—	—	3.5
500	—	—	43.9	—	—	0.0	—	—	-1.2

All swept frequency values above 350 MHz are for engineering purposes only.

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1	67.8	**72.8**	86.8	64.8	**69.8**	83.1	50.0	35.0
4	55.8	**60.7**	74.9	52.8	**57.7**	71.5	44.0	23.0
10	47.8	**52.8**	67.1	44.8	**49.8**	63.5	40.0	15.0
16	43.7	**48.7**	63.0	40.7	**45.7**	59.2	38.0	10.9
20	41.8	**46.8**	61.0	38.8	**43.8**	57.2	37.0	9.0
31.25	37.9	**42.9**	57.3	34.9	**39.9**	53.6	35.1	5.1
62.5	31.9	**36.8**	51.2	28.9	**33.8**	47.6	32.0	—
100	27.8	**32.8**	46.9	24.8	**29.8**	43.5	30.0	—
150	24.3	**29.3**	43.3	21.3	**26.3**	39.6	28.2	—
200	21.8	**26.7**	40.9	18.8	**23.7**	37.1	27.0	—
250	19.8	**24.8**	38.9	16.8	**21.8**	35.2	26.0	—
300	—	**23.2**	37.7	—	**20.2**	33.6	25.2	—
350	—	**21.9**	36.2	—	**18.9**	32.6	24.6	—
400	—	—	34.7	—	—	30.9	24.0	—
450	—	—	33.1	—	—	29.4	23.5	—
500	—	—	32.2	—	—	27.8	23.0	—

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LANmark-1000 Plenum UTP Physical Data

Technical Data - Physical		
Conductor	23 AWG Bare Copper	
Conductor diameter - in. (mm)	0.022	(0.58)
Insulated conductor dia.-in.(mm)	0.037	(1.04)
Cable diameter - in. (mm)	0.226	(5.69)
Nom. cable wt.-lb./kft. (kg/km)	29	(13.2)
Max. installation tension - lb. (N)	25	(110)
Min. bend radius - in. (mm)	1	(25.4)

Color Code		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

Temperature Rating (degrees C)	
Installation	0 to +50
Operation	-20 to +60

LANmark-1000 Plenum Technical Data - Parametric Measurements

Mutual Capacitance	5.6 nF/100 m max.
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.
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

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IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

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.