

LANmark-1000 Enhanced Category 6 Plenum Rated

LANmark-1000 Plenum

Part Number: 10032094

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.

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.

Based on Berk-Tek's advanced testing, LANmark-1000 has a Converged Application Score (CA Score) of 7.3 and is a good choice for high bandwidth applications and to support a network with more devices using PoE. For more information on CA Score, please click [here](#).

Perform Beyond Expectations... Choose Berk-Tek

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	Blue
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-1000 Parametric Data: Electrical

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

FQ	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)		LCL/TCL
	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG	
1	20.00 / 20.00	74.30 / 79.30	72.30 / 77.30	67.80 / 72.80	50.00				
4	23.00 / 23.60	65.30 / 70.30	63.30 / 68.30	55.80 / 60.70	44.00				
10	25.00 / 26.00	59.30 / 64.30	57.30 / 62.30	47.80 / 52.80	40.00				
16	25.00 / 26.00	56.20 / 61.30	54.20 / 59.30	43.70 / 48.70	38.00				
20	25.00 / 26.00	54.80 / 59.80	41.80 / 57.80	41.80 / 46.80	37.00				
31.25	23.60 / 25.00	51.90 / 56.90	49.90 / 54.90	37.90 / 42.90	35.10				
62.5	21.50 / 23.50	47.40 / 52.40	45.40 / 50.40	31.90 / 36.80	32.00				
100	20.10 / 22.50	44.30 / 49.30	42.30 / 47.30	27.80 / 32.80	30.00				
150	18.90 / 21.60	41.70 / 46.70	39.70 / 44.70	24.30 / 29.30	28.20				
200	18.00 / 21.00	39.80 / 44.80	37.80 / 42.80	21.80 / 26.70	27.00				
250	17.30 / 20.50	38.30 / 43.30	36.30 / 41.30	19.80 / 24.80	26.00				
300	— / 20.10	— / 42.10	— / 40.10	— / 23.30	25.20				
350	— / 19.80	— / 41.20	— / 39.20	— / 21.90	24.60				
400	— / 19.50*	— / 40.30*	— / 38.30*	— / 20.70*	24.00*				
450	— / 19.20*	— / 39.50*	— / 37.50*	— / 19.70*	23.50*				
500	— / 19.00*	— / 38.80*	— / 36.80*	— / 18.80*	23.00*				

FQ	IL (dB/100 m)		ACR (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)		EL TCTL
	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG	
1	2.00 / 2.00	72.20 / 77.30	70.30 / 75.30	64.80 / 69.80	35.00				
4	3.80 / 3.80	61.50 / 66.60	59.50 / 64.50	52.80 / 57.70	23.00				
10	6.00 / 5.90	53.40 / 58.40	51.30 / 56.40	44.80 / 49.80	15.00				
16	7.60 / 7.50	48.80 / 53.80	46.70 / 51.70	40.70 / 45.70	10.90				
20	8.50 / 8.40	46.40 / 51.40	44.30 / 49.40	38.80 / 43.80	9.00				
31.25	10.70 / 10.60	41.40 / 46.40	39.20 / 44.30	37.90 / 39.90	—				
62.50	15.40 / 15.30	32.40 / 37.10	30.00 / 35.10	28.90 / 33.80	—				
100	19.80 / 19.70	25.20 / 29.70	22.50 / 27.60	24.80 / 29.80	—				
150	24.70 / 24.50	16.90 / 22.20	14.90 / 20.20	21.30 / 26.30	—				
200	29.00 / 28.80	10.80 / 16.00	8.80 / 14.00	18.80 / 23.70	—				
250	32.80 / 32.60	7.30 / 10.80	3.50 / 8.70	16.80 / 21.80	—				
300	— / 36.20	— / 6.00	— / 4.00	— / 20.30	—				
350	— / 39.50	— / 1.70	— / —	13.90 / 18.90	—				
400	— / 42.70*	— / -2.40*	— / —	12.80 / 17.70*	—				
450	— / 45.70*	— / -6.20*	— / —	— / 16.70*	—				
500	— / 48.60*	— / -9.80*	— / —	10.80 / 15.80*	—				

*Values provided for reference only

LANmark-1000 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)	0.040	(1.02)	Pair-3	White/Green	Green
Cable diameter - in. (mm)	0.23	(5.84)	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 +75	

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LANmark-1000 Plenum Technical Data - Parametric Measurements

Mutual Capacitance	5.1 nF/100 m max.	Pair to Ground Unbalance	330 pF/100 m max.
DC Resistance	9.38 Ohms/100 m max.	Velocity of Propagation	68% nom.
Skew	45 ns/100 m max.	DC Resistance unbalance	5% max.

LANmark-1000 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-1000

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-1000 UTP Plenum Jacket Legend

BERK-TEK LANMARK-1000 23 AWG CMP 75C C(UL)US ETL VERIFIED TIA-568-C.2 CAT 6 [ANY APPLICABLE PATENTS] [DATECODE] [SEQ#] FT

Selling information

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