LANmark-2000 Enhanced Category 6 Riser

The LANmark-2000 cable series is comprised of ANSI/TIA/EIA Category 6 compliant cables that are specified and tested to 500 MHz. LANmark-2000 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously. The useable bandwidth allows for the convergence ofanalog video, voice and data onto one cable simultaneously. This convergence of technologies simplifies even the most dynamic network. LANmark-2000 is Berk-Tek's highest performing Enhanced Category 6 cableavailable. Every key electrical property for LANmark-2000 has been improved when measured against the TIA/EIA 568-B.2-1 Category 6 standard. This improvement in electrical performance ensures thattransmitted signals will be stronger and less susceptible to outside interference, resulting in more robust network performance.

Description

Construction

23 AWG bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

Standards

North American: ANSI/TIA/EIA-568-B.2-1 Category 6

International: ISO/IEC 11801-1995

European: EN 50173

Flame Rating

Non-plenum-UL 1666, CMR, CMG, IEC 332-1

UL Listed

Standards
National TIA/EIA-568-B.2

Applications

Berk-Tek's LANmark-2000 UTP cable is intended for future and high speed data and multimedia applications including:

- IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T
- 1000BASE-TX (ANSI/TIA/EIA-854-2001)
- 155 Mb/s ATM
- ANSI X3.263 100Mb/s
- 4/16 Mb/s Token Ring

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-B.2-1 Category 6 standard
- Highest performing UTP cable available

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Benefits

- Capable of handling applications which utilize full duplex operation and/or simultaneous bidirectional transmission
- Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics improves overall cable performance and reduces cable emission which results in reduced transmission errors
- Improved insertion loss allows more signal to reach the receiver resulting in cleaner data and video transmission
- State-of-the-art testing allows high frequency characterization of the cable to 500 MHz

Contact
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Characteristics

Dimensional characteristics		
Length per reel	1000.0	ft
Number of pairs	4	

Temperature Rating

Installation	0°C to +50°C
Operation	-10°C to +75°C

Technical Data - Physical

	CMR	
Conductor diameter-in. (mm)	0.024	(0.56)
Cable diameter-in. (mm)	0.25	(6.35)
Nominal cable weight-lb./kft. (kg/km)	32	(47)
Max. installation tension-lb. (N)	25	(110)
Min. bend radius-in. (mm)	1	(25.4)

Parametric Measurements

	HORIZONTAL
Mutual Capacitance	4.4 nF/100 m nom.
DC resistance max.	9.38 Ohms/100 m max.
Skew	35 ns/100 m nom. 45 ns/100 m max
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	70% nom. Non-Plenum
Input Impedance	100 ± 13% 0.772-100 MHz, 100 ± [13+15log (F/100)] 100-500 MHz

Color Code

Pair-1	White	Blue
Pair-2	White	Orange
Pair-3	White	Green
Pair-4	White	Brown

Technical Data - Electrical

	HORIZONTAL					
FREQ	**SRL (dB)**	**RL (dB)**	**INSERTION LOSS (dB/100m)**	**PS-NEXT (dB)**	**NEXT (dB)**	**ACR (dB/100m)**

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MHz	min.	typical	min.	typical	max.	typical	min.	typical	min.	typical	min.	typical
1	26.0	44.1	20.0	32.0	1.7	1.5	78.3	98.4	80.3	100.4	78.6	93.9
4	26.0	47.4	23.6	32.0	3.5	3.1	69.3	88.8	71.3	90.8	67.8	82.4
10	26.0	45.9	26.0	36.2	5.5	4.9	63.3	80.2	65.3	82.2	59.8	72.2
16	26.0	43.4	26.0	39.7	7.0	6.3	60.3	77.5	62.3	79.5	55.3	68.5
20	26.0	42.7	26.0	39.9	7.8	7.1	58.8	75.7	60.8	77.7	53.0	65.9
31.25	25.0	41.4	25.0	41.0	9.8	9.0	55.9	72.8	57.9	74.8	48.1	61.6
62.5	23.5	39.5	23.5	37.7	14.1	13.0	51.4	68.3	53.4	70.3	39.2	51.5
100	22.5	39.9	22.5	37.4	18.0	16.8	48.3	64.5	50.3	66.5	32.3	45.1
155	21.6	38.9	21.6	37.3	23.2	21.4	45.4	62.0	47.4	64.0	24.2	38.1
200	21.0	38.0	21.0	36.0	29.1	24.7	43.8	59.5	45.8	61.5	16.7	32.0
250	20.5	37.4	20.5	35.2	30.9	27.9	42.3	58.1	44.3	60.1	13.4	27.6
350	19.8	34.1	19.8	32.0	38.1	34.0	40.2	54.8	42.2	56.8	4.1	19.2
500	19.0	33.2	19.0	31.3	47.7	42.0	37.8	53.5	39.8	55.5	-	9.0
600	18.6	32.6	18.6	30.6	53.7	47.7	36.6	51.6	38.6	53.6	-	-

FREQ	PS-ACR (dB/100m)		ELFEXT (dB)		PS-ELFEXT (dB)		LCL/TCL (dB@100m)		EL TCTL (dB@100m)	
MHz	min.	typical	min.	typical	min.	typical	min.	typical	min.	typical
1	76.6	92.1	72.8	94.3	72.8	85.4	50.0	63.8	35.0	58.3
4	65.8	81.0	60.7	83.1	60.7	73.8	44.0	61.8	23.0	54.0
10	57.8	70.4	52.8	74.0	52.8	65.5	40.0	60.2	15.0	50.8
16	53.3	66.8	48.7	70.9	48.7	61.9	38.0	60.5	10.9	49.6
20	51.0	64.1	46.7	69.5	46.7	60.0	37.0	59.0	9.0	49.6
31.25	46.1	59.9	42.9	66.4	42.9	56.9	35.1	58.4	5.5	49.6
62.5	37.3	49.9	36.8	61.1	36.8	51.3	32.0	56.4	-	-
100	30.3	43.3	32.8	56.0	32.8	47.0	30.0	54.2	-	-
155	22.2	36.4	28.9	52.3	28.9	42.7	28.0	53.0	-	-
200	14.7	30.4	26.7	47.6	26.7	39.6	27.0	51.4	-	-
250	11.4	26.1	24.8	46.2	24.8	37.6	26.0	50.2	-	-
350	2.1	17.7	21.9	41.4	21.9	34.0	24.6	-	-	-
500	-	7.2	18.8	38.9	18.8	33.0	23.0	-	-	-
600	-	-	17.2	37.2	17.2	30.5	22.2	-	-	-

IMPORTANT: Berk-Tek performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the tables of data shown which are presented to demonstrate our guarantees at "representative" frequencies. Values above 500 MHz are provided for engineering information. Limited Combustible version also available. Other jacket colors available.

Product List

Berk-Tek P/N	Description	Type of cable	Colour	Packaging	Field of application
10033818	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Grey	Reel	Indoor

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Berk-Tek P/ N	Description	Type of cable	Colour	Packaging	Field of application
10065420	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Grey	Reel in a box	Indoor
10033394	LANmark-2000 Enhanced Catregory 6 Riser	UTP	White	Reel	Indoor
10065419	LANmark-2000 Enhanced Catregory 6 Riser	UTP	White	Reel in a box	Indoor
10094587	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Red	Reel	Indoor
10064917	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Black	Reel	Indoor
10066097	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Black	Reel in a box	Indoor
10033817	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Blue	Reel	Indoor
10065418	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Blue	Reel in a box	Indoor
10033819	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Yellow	Reel	Indoor
10065421	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Yellow	Reel in a box	Indoor
10033820	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Green	Reel	Indoor
10065422	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Green	Reel in a box	Indoor
10052967	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Orange	Reel	Indoor
10066096	LANmark-2000 Enhanced Catregory 6 Riser	UTP	Orange	Reel in a box	Indoor