

LANmark-2000 Enhanced Category 6 Riser

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-B.2-1 Category 6 standard for transmitted signals, making them stronger and less susceptible to outside interference. LANmark-2000 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously.

Description

Construction

Bare copper wire insulated with Polyethylene. 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.

Standards

- North America: ANSI/TIA/EIA-568-B.2-1 Category 6, UL444 and C22.2 No. 214-02
- International: ISO/IEC 11801-2nd Edition category 6, EU directive 2002/95/EC (RoHS)

Flame Rating

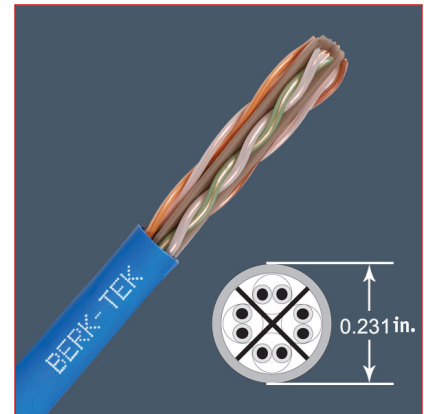
- Non-Plenum; UL 1666, CMR
- UL Listed

Applications

- IEEE 802.3 1000BASE-T 1 Gb/s
- TIA/EIA-854 1000BASE-TX 1 GB/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10Mb/s
- IP Video
- Broadband Video

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



Standards

National TIA/EIA-568-B.2

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Benefits

- 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 allows improved signal to reach the receiver resulting in cleaner data and video transmission

Characteristics

Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Fire safety	Riser Rated

Technical Data - Physical

Technical Data - Physical			Color Code		
			Pair-1	White/Blue	Blue
Conductor	23 AWG solid bare copper		Pair-2	White/Orange	Orange
Conductor diameter-in. (mm)	0.022	(0.56)	Pair-3	White/Green	Green
Insulated conductor diameter	0.039	(0.99)	Pair-4	White/Brown	Brown
Cable diameter-in. (mm)	0.231	(5.87)			
Nominal cable weight-lb./kft. (kg/km)	30	(41)	Temperature Rating		
Max. installation tension-lb. (N)	25	(110)	Installation	0°C to +50°C	
Min. bend radius-in. (mm)	1	(25.4)	Operation	-20°C to +75°C	

Technical Data - Parametrics

Mutual Capacitance	5.6 nF/100m max.
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. at 1 kHz
Velocity of Propagation	69% nom. non-plenum
Input Impedance	100 ± 13% 0.772-100 MHz, 100 ± [13 +15log (F/100)] 100-500 MHz
DC Resistance Unbalance	3% max.

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Technical Data - Electrical

FREQ (MHz)	SRL (dB)		RL (dB)		INSERTION LOSS (dB/100m)		PS-NEXT (dB)		NEXT (dB)		ACR (dB/100m)	
	min.	typical	min.	typical	max.	typical	min.	typical	min.	typical	min.	typical
1	na	44.0	20.0	36.8	2.0	1.7	82.3	101.8	84.3	107.8	82.3	102.7
4	na	46.6	23.6	34.5	3.7	3.5	73.3	88.9	75.3	97.6	71.6	87.2
10	26.0	47.8	26.0	38.3	5.8	5.6	67.3	82.6	69.3	89.4	63.5	79.3
16	26.0	44.5	26.0	36.8	7.4	7.2	64.3	79.7	66.3	86.5	58.9	75.3
20	26.0	45.1	26.0	38.9	8.2	8.1	62.5	77.5	64.5	86.8	56.3	71.0
31.25	25.1	53.4	25.1	39.3	10.4	10.1	59.9	74.9	61.9	81.9	51.6	66.4
62.5	23.5	41.0	23.5	39.0	15.0	14.6	55.4	68.4	57.4	74.8	42.4	56.2
100	22.5	43.0	22.5	36.4	19.3	18.7	52.3	65.0	54.3	78.1	35.1	47.4
250	20.5	38.4	20.5	34.8	32.0	30.7	46.3	63.3	48.3	69.2	16.4	35.6
350	19.8	37.8	19.8	41.2	38.7	36.9	44.2	61.0	46.2	67.4	7.6	26.5
500	19.0	35.4	19.0	33.6	47.6	45.1	41.8	51.4	43.8	60.7	—	7.2
600	18.6	33.9	18.6	33.4	53.0	49.8	40.6	50.3	42.6	56.0	—	2.0

Electrical characteristics are guaranteed to 500 MHz. Data above 500 MHz is for engineering information

Technical data - Electrical

FREQ (MHz)	PS-ACR (dB@100m)		ELFEXT (dB)		PS-ELFEXT (dB)		LCL/TCL (dB@100m)	EL TCTL (dB@100m)
	min.	typical	min.	typical	Min.	typical	min.	min.
1	80.3	100.1	76.8	100.7	73.8	92.1	50.0	35.0
4	69.6	85.5	64.7	92	61.7	81.8	44.0	23.0
10	61.5	77.1	56.8	80.9	53.8	73.3	40.0	15.0
16	56.9	72.7	52.7	76.3	49.7	69.5	38.0	10.9
20	54.6	69.6	50.7	74.5	47.7	67.6	37.0	9.0
31.25	49.5	65	46.9	70	43.9	63.8	35.1	5.5
62.5	40.4	54.2	40.8	59.6	37.8	54.9	32.0	—
100	33.0	46.7	36.8	62.1	33.8	52.8	30.0	—
250	14.4	33.1	28.8	52.7	25.8	46.5	26.0	—
350	5.4	24.5	25.9	45.6	22.9	37.3	24.6	—
500	—	6.2	22.8	40.3	19.8	34.1	23.0	—
600	—	-0.2	—	37.1	—	29.7	22.2	—

Product List

Part Number	Description	Type of cable	Colour	Packaging	Field of application
☐ 10167478	LANmark-2000 Enhanced Category 6 Riser	UTP	Light grey	Reel	Indoor

☒ = Make to order, ☐ = Make to stock

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Part Number	Description	Type of cable	Colour	Packaging	Field of application
☎ 10167479	LANmark-2000 Enhanced Category 6 Riser	UTP	Light grey	Reel in a box	Indoor
☎ 10167480	LANmark-2000 Enhanced Category 6 Riser	UTP	White	Reel	Indoor
☎ 10167481	LANmark-2000 Enhanced Category 6 Riser	UTP	White	Reel in a box	Indoor
☎ 10170687	LANmark-2000 Enhanced Category 6 Riser	UTP	Green	Reel	Indoor
☎ 10170688	LANmark-2000 Enhanced Category 6 Riser	UTP	Green	Reel in a box	Indoor
☎ 10170689	LANmark-2000 Enhanced Category 6 Riser	UTP	Orange	Reel	Indoor
☎ 10170690	LANmark-2000 Enhanced Category 6 Riser	UTP	Orange	Reel in a box	Indoor
☎ 10167482	LANmark-2000 Enhanced Category 6 Riser	UTP	Yellow	Reel	Indoor
☎ 10167483	LANmark-2000 Enhanced Category 6 Riser	UTP	Yellow	Reel in a box	Indoor
☎ 10167476	LANmark-2000 Enhanced Category 6 Riser	UTP	Blue	Reel	Indoor
☎ 10167477	LANmark-2000 Enhanced Category 6 Riser	UTP	Blue	Reel in a box	Indoor
☎ 10170691	LANmark-2000 Enhanced Category 6 Riser	UTP	Violet	Reel	Indoor
☎ 10170692	LANmark-2000 Enhanced Category 6 Riser	UTP	Violet	Reel in a box	Indoor
☎ 10170693	LANmark-2000 Enhanced Category 6 Riser	UTP	Red	Reel	Indoor
☎ 10170694	LANmark-2000 Enhanced Category 6 Riser	UTP	Red	Reel in a box	Indoor
☎ 10189739	LANmark-2000 Enhanced Category 6 Riser	UTP	Black	Reel	Indoor

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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.