Contact
Copper LAN Product Inquiry
Phone: 717-354-6200
berktek.support@nexans.com

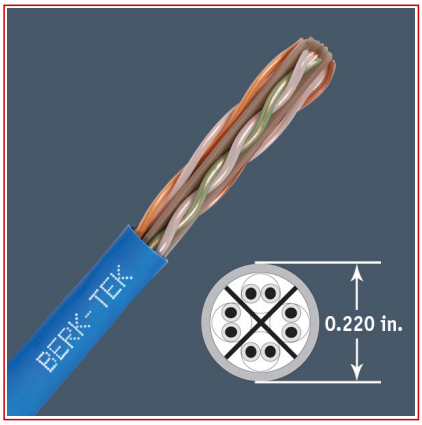
LANmark-2000 Enhanced Category 6 Plenum

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. It is also ideal for Power over Ethernet (PoE) applications where a larger gauge for greater current carrying capacity is needed.

Description

Construction

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.



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

Plenum; NFPA 262, CMP

UL Listed

Standards

National TIA/EIA-568-B.2

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

Benefits

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

Characteristics

Construction characteristics	
Type of cable	UTP
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Field of application	Indoor
Category	Cat. 6e
Fire safety	Plenum Rated

Product List

=Make to order, =Make to stock

Part Number	Description	Colour	Packaging
10163222	LANmark-2000 Enhanced Category 6 Plenum	Blue	Reel
10167464	LANmark-2000 Enhanced Category 6 Plenum	Light grey	Reel
10167308	LANmark-2000 Enhanced Category 6 Plenum	Yellow	Reel
10167311	LANmark-2000 Enhanced Category 6 Plenum	White	Reel
10170668	LANmark-2000 Enhanced Category 6 Plenum	Green	Reel
10170684	LANmark-2000 Enhanced Category 6 Plenum	Red	Reel
10170672	LANmark-2000 Enhanced Category 6 Plenum	Violet	Reel
10170670	LANmark-2000 Enhanced Category 6 Plenum	Orange	Reel
10163780	LANmark-2000 Enhanced Category 6 Plenum	Blue	Reel in a box
10167312	LANmark-2000 Enhanced Category 6 Plenum	White	Reel in a box
10167309	LANmark-2000 Enhanced Category 6 Plenum	Yellow	Reel in a box
10170673	LANmark-2000 Enhanced Category 6 Plenum	Violet	Reel in a box
10170669	LANmark-2000 Enhanced Category 6 Plenum	Green	Reel in a box
10167307	LANmark-2000 Enhanced Category 6 Plenum	Light grey	Reel in a box
10170671	LANmark-2000 Enhanced Category 6 Plenum	Orange	Reel in a box
10170685	LANmark-2000 Enhanced Category 6 Plenum	Red	Reel in a box
10178756	LANmark-2000 Enhanced Category 6 Plenum	Pink	Reel in a box

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Technical Data - Physical

Technical Data - Physical		
Conductor	23 AWG solid bare copper	
Conductor diameter–in. (mm)	0.022	(0.56)
insulated conductor diamater	0.037	(0.94)
Cable diameter–in. (mm)	0.22	(5.59)
Nominal cable weight–lb./kft. (kg/km)	30	(45)
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	
Installation	0°C to +50°C
Operation	-20°C to +60°C

Parametric Measurements

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	72% nom. Plenum
Input Impedance	100 ± 13% 0.772-100 MHz, 100 ± [13+15log (F/100)] 100-500 MHz
DC Resistance Unbalance	3% max.

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

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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	—

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.