

LANmark-1000 Category 6 Riser

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

Construction

23 AWG 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 American: ANSI/TIA/EIA-568-B.2-1 Category 6, UL 444 and C22.2 No. 214-02

International: ISO/IEC 11801-2nd Edition Category 6, EU Directive 2002/95/EC (RoHS)

Flame Rating

Riser - UL 1666, CMR, IEC 332-1, UL Listed

Applications

Berk-Tek's LANmark-1000 UTP cable is intended for high speed data applications including:

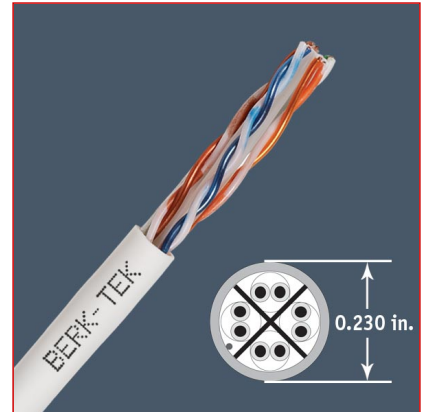
- IEEE 802.3 1000BASE-T 1 Gb/s
- TIA/EIA-854 1000BASE-TX 1 Gb/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10 Mb/s

Features

- Full Power Sum Performance
- Documented balance characteristics (LCL, LCTL)
- ETL verified to ANSI/TIA/EIA-568-B.2-1 Category 6 standard

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

National TIA/EIA-568-B.2

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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. 6

Technical Data - Physical

Technical Data - Physical			Color Code		
			Pair-1	White/Blue	Blue
Conductor	23 AWG Bare Copper		Pair-2	White/Orange	Orange
Conductor diameter-in. (mm)	0.022 (0.56)		Pair-3	White/Green	Green
Insulated Conductor Diameter- in. (mm)	0.039 (0.99)		Pair-4	White/Brown	Brown
Cable diameter-in. (mm)	0.228 (5.8)				
Nominal cable weight-lb./kft. (kg/km)	25 (38.2)		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	

Parametric Measurements

Mutual Capacitance	4.4 nF/100 m nom.
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	69% nom.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13 +15log (F/100)] 100-350 MHz

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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	26.0	34.7	20.0	41.2	2.0	1.7	77.3	88.4	79.3	95.6	77.3	88.2
4	26.0	43.1	23.6	38.7	3.8	3.5	68.3	82.3	70.3	91.6	66.5	80.1
10	26.0	45.4	26.0	40.7	5.9	5.6	62.3	74.7	64.3	80.4	58.4	71.3
16	26.0	39.4	26.0	41.7	7.5	7.2	59.3	75.8	61.3	82.7	53.8	70.3
20	26.0	41.8	26.0	46.0	8.4	8.1	57.8	69.9	59.8	76.3	51.4	63.9
31.25	25.0	45.5	25.0	43.6	10.6	10.1	54.9	67.7	56.9	75.7	46.3	59.1
62.5	23.5	39.4	23.5	37.2	15.3	14.6	50.4	67.3	52.4	74.2	37.1	54.3
100	22.5	37.5	22.5	35.3	19.7	18.7	47.3	63.8	49.3	71.4	29.6	47.0
250	20.5	34.5	20.5	32.5	32.6	30.7	41.3	56.0	43.3	62.4	10.7	26.6
350	19.8	32.2	19.8	30.6	39.5	36.9	39.2	52.1	41.2	59.5	1.7	15.6
500	19.0	33.6	19.0	31.2	48.6	45.1	36.8	51.6	38.8	57.7	—	7.0
550	18.8	33.8	18.8	32.3	51.4	47.3	36.2	50.5	38.2	55.7	—	3.6

RL, SRL, IL, NEXT, PSNEXT, ELNEXT, PSELNEXT and impedance are guaranteed to 350 MHz. Data above 350 MHz is for engineering information.

Technical Data - Electrical

FREQ MHz	PS-ACR (dB@100m)		ELNEXT (dB)		PS-ELNEXT (dB)		LCL/TCL (dB)	EL TCTL (dB)
	min.	typical	min.	typical	min.	typical	min.	min.
1	75.3	86.8	72.8	95.7	69.8	87.4	50.0	35.0
4	64.5	78.8	60.7	83.7	57.7	77.1	44.0	23.0
10	56.4	69.1	52.8	74.8	49.8	68.1	40.0	15.0
16	51.7	68.7	48.7	70.0	45.7	63.3	38.0	10.9
20	49.4	61.9	46.7	66.9	43.7	60.3	37.0	9.0
31.25	44.3	57.7	42.9	62.3	39.9	55.7	35.1	5.5
62.5	35.1	52.7	36.8	55.0	33.8	49.5	32.0	—
100	27.6	45.0	32.8	55.1	29.8	45.8	30.0	—
250	8.7	24.7	24.8	40.6	21.8	33.8	26.0	—
350	—	14.2	21.9	43.6	18.9	33.0	24.6	—
500	—	4.5	18.8	36.0	15.8	27.4	23.0	—
550	—	0.8	17.9	39.4	14.9	29.5	22.6	—

RL, SRL, IL, NEXT, PSNEXT, ELNEXT, PSELNEXT and impedance are guaranteed to 350 MHz. Data above 350 MHz is provided for engineering information.

























Product List

☎ = Make to order, 🏭 = Make to stock

Part Number	Description	Colour	Packaging	Fire safety
🏭 10032451	LANmark-1000 Riser	Grey	Reel	Riser Rated
🏭 10032452	LANmark-1000 Riser	Grey	Box	Riser Rated
🏭 10032454	LANmark-1000 Riser	Blue	Reel	Riser Rated

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LANmark-1000 Category 6 Riser

Part Number	Description	Colour	Packaging	Fire safety
 10032455	LANmark-1000 Riser	Blue	Box	Riser Rated
 10032458	LANmark-1000 Riser	White	Reel	Riser Rated
 10032459	LANmark-1000 Riser	White	Box	Riser Rated
 10032460	LANmark-1000 Riser	Yellow	Reel	Riser Rated
 10032461	LANmark-1000 Riser	Yellow	Box	Riser Rated
 10032476	LANmark-1000 Riser	Red	Reel	Riser Rated
 10032477	LANmark-1000 Riser	Red	Box	Riser Rated
 10032478	LANmark-1000 Riser	Green	Reel	Riser Rated
 10032479	LANmark-1000 Riser	Green	Box	Riser Rated
 10032501	LANmark-1000 Riser	Violet	Box	Riser Rated
 10033815	LANmark-1000 Riser	Black	Box	Riser Rated
 10033994	LANmark-1000 Riser	Black	Reel	Riser Rated
 10035206	LANmark-1000 Riser	Cream	Box	Riser Rated
 10042063	LANmark-1000 Riser	Pink	Box	Riser Rated
 10042077	LANmark-1000 Riser	Orange	Box	Riser Rated
 10065429	LANmark-1000 Riser	Blue	Reel in a box	Riser Rated
 10065430	LANmark-1000 Riser	White	Reel in a box	Riser Rated
 10065431	LANmark-1000 Riser	Grey	Reel in a box	Riser Rated
 10065432	LANmark-1000 Riser	Yellow	Reel in a box	Riser Rated
 10065433	LANmark-1000 Riser	Green	Reel in a box	Riser Rated
 10066094	LANmark-1000 Riser	Orange	Reel in a box	Riser Rated
 10066095	LANmark-1000 Riser	Black	Reel in a box	Riser Rated
 10070406	LANmark-1000 Riser	Orange	Reel	Riser Rated
 10095375	LANmark-1000 Riser	Violet	Reel in a box	Riser Rated

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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.