

## Contact

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

## LANmark-10G2 Augmented Category 6 Riser

Cat. 6a

Part Number: 10137700

LANmark™-10G2 is a next generation cable for 10 gigabit Ethernet. LANmark-10G2 is a true multi-media cable and is specifically designed to handle voice, video and data simultaneously. This convergence of technologies simplifies even the most dynamic network. The 10G2 is a breakthrough in cable technology, and its patented design minimizes alien crosstalk while maintaining a nominal .32" outside diameter (CMR).

### Description

#### Construction

Bare copper wire insulated with polyethylene and cellular polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit made round with 3 monofilaments and with a striated flame-retardant PVC jacket.

#### Standards

- North American
  - ANSI/TIA/EIA-568-B.2-10 Augmented Category 6
  - UL 444 and C22.2 No. 214-02
- International
  - EU Directive 2002/95/EC (RoHS)

#### Flame Rating

- Riser - UL 1666, CMR
- ETL Listed

#### Applications

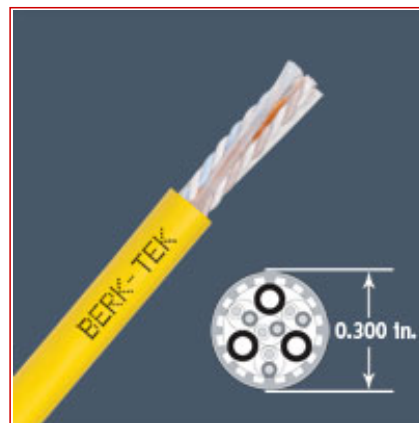
Berk-Tek's LANmark-10G2 UTP cable is intended for future and high speed data and multimedia applications including:

IEEE 802.3	10GBASE-T	10 Gb/s
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

- New flexible, round, compact design
- Alien Crosstalk compliant
- Fully compliant to Augmented Category 6 requirements
- Documented balance characteristics (LCL/TCL, EL TCTL)
- Reduced attenuation (Insertion Loss)
- Highest performing UTP cable available

#### Benefits



#### Standards

National TIA/EIA-568-B.2-10



## LANmark-10G2 Augmented Category 6 Riser

Cat. 6a

- Easier installation and cable management with round design
- Round design provides a true OD measurement
- Provides the bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics improves overall cable performance and reduce transmission errors
- Characterized to 750 MHz, 250 MHz greater than the standard
- Improved insertion loss for stronger signal to noise ratio



### Characteristics

Construction characteristics	
Type of cable	UTP
Colour	Blue
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Packaging	Reel
Field of application	Indoor
Category	Cat. 6a
Fire safety	Riser Rated

### Technical Data

Physical			Color Code		
Conductor	23 AWG bare copper		Pair-1	White	Blue
Conductor diameter—in. (mm)	0.023	(0.58)	Pair-2	White	Orange
Insulated conductor diameter—in. (mm)	0.047	(1.19)	Pair-3	White	Green
Cable diameter nom.—in. (mm)	0.320	(8.1)	Pair-4	White	Brown
Nominal cable weight—lb./kft. (kg/km)	46	(69)	<b>Temperature Rating</b>		
Max. installation tension—lb. (N)	25	(110)	Installation	0°C to +50°C	
Min. bend radius—in. (mm)	1.28	(32.5)	Operation	-20°C to +75°C	

### Technical Data - Parametric Measurements

Mutual Capacitance	5.1 nF/100 m nom.
Capacitance P-G	330 nF/100 m nom.
DC resistance max.	9.38 Ohms/100 m max.
DC unbalance max.	3%
Skew	45 ns/100 m max.
Pair to ground unbalance	330 pF/100 m max.
Velocity of Propagation	67% nom.

## LANmark-10G2 Augmented Category 6 Riser

Cat. 6a

### Technical Data - Electrical

FREQ MHz	RL		IL		NEXT		PSNEXT		ACR	
	dB min.	typical	dB max.	typical	dB min.	typical	dB min.	typical	dB min.	typical
1	20.0	33.9	2.1	1.7	76.3	101.0	74.3	92.1	74.2	92.0
4	23.0	41.9	3.8	3.5	67.3	90.9	65.3	81.5	63.5	79.3
10	25.0	42.0	5.9	5.6	61.3	91.2	59.3	80.7	55.4	75.9
16	25.0	44.3	7.5	7.2	58.3	86.3	56.3	75.4	50.8	69.9
31.25	23.6	39.0	10.5	10.1	53.9	77.1	51.9	69.1	43.5	60.7
62.5	21.5	41.6	15.0	14.6	49.4	74.5	47.4	68.3	34.4	56.7
100	20.1	36.9	19.1	18.7	46.3	71.9	44.3	63.3	27.3	46.3
250	17.3	33.3	31.1	30.7	40.3	62.9	38.3	56.7	9.3	29.5
400	15.9	31.1	40.1	39.6	37.3	60.0	35.3	52.8	--	16.1
500	15.2	33.1	45.3	45.1	35.8	58.3	33.8	50.9	--	9.3
600	14.7	30.1	50.1	49.8	34.6	53.6	32.6	46.1	--	0.5
750	14.0	29.5	56.7	56.2	33.2	53.4	31.2	40.1	--	0.0

### Technical Data - Electrical

FREQ MHz	PSACR		ACRF		PSACRF		PS-ANEXT	PS-AACRF	LCL/TCL	EL TCTL
	dB min.	typical	dB min.	typical	dB min.	typical	dB min.	dB min.	dB min.	dB min.
1	72.2	90.4	71.8	54.4	68.8	86.6	67.0	67.0	50.0	35.0
4	61.5	78.0	59.7	57.9	56.7	74.9	67.0	66.2	44.0	23.0
10	53.4	75.1	51.8	58.6	48.8	66.9	67.0	58.2	40.0	15.0
16	48.8	68.3	47.7	59.5	44.7	62.6	67.0	54.1	38.0	10.9
31.25	41.4	59.2	41.9	59.4	38.9	57.2	67.0	48.3	35.1	5.1
62.5	32.4	54.1	35.8	59.1	32.8	51.7	65.6	42.3	32.0	--
100	25.2	45.2	31.8	59.4	28.8	46.9	62.5	38.2	30.0	--
250	7.3	27.2	23.8	60.2	20.8	39.5	56.5	30.2	26.0	--
400	--	14.8	19.7	60.8	16.7	34.4	53.4	26.2	24.0	--
500	--	7.8	17.8	61.0	14.8	32.1	52.0	24.2	23.0	--
600	--	-1.2	16.2	61.6	13.2	30.8	50.8	22.6	22.2	--
750	--	--	14.3	62.4	11.3	26.9	49.3	20.7	21.2	--

Electrical characteristics above 500 MHz are for engineering information.

### 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.

