

LANmark-10G2 Augmented Category 6 Riser

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

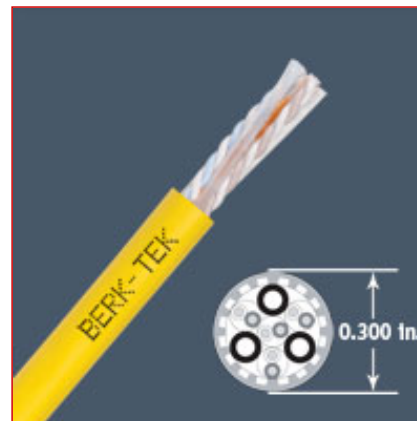
Applications

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



Standards

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

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Benefits

- 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
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Packaging	Reel
Field of application	Indoor
Category	Cat. 6a

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)	Temperature Rating		
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.

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Technical Data - Electrical

FREQ	RL		IL		NEXT		PSNEXT		ACR	
MHz	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	PSACR		ACRF		PSACRF		PS-ANEXT	PS-AACRF	LCL/TCL	EL TCTL
MHz	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.

Product List

☞ = Make to order, ☞ = Make to stock

Part Number	Description	Colour	Fire safety
☞ 10137700	Cat. 6a	Blue	Riser Rated
☞ 10138770	Cat. 6a	Green	Riser Rated
☞ 10137704	Cat. 6a	Black	Riser Rated
☞ 10138768	Cat. 6a	Red	Riser Rated
☞ 10137702	Cat. 6a	Violet	Riser Rated

☞ = Make to order, ☞ = Make to stock

Contact

Copper LAN Product Inquiry
Phone: 717-354-6200
copper-pc.us@nexans.com

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Part Number	Description	Colour	Fire safety
10137701	Cat. 6a	Grey	Riser Rated
10137703	Cat. 6a	White	Riser Rated
10137706	Cat. 6a	Yellow	Riser Rated
10138769	Cat. 6a	Pink	Riser Rated
10138772	Cat. 6a	Orange	Riser Rated
☎ = Make to order, 10137701 = Make to stock			

Selling delivery information

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