

LANmark-10G2 Augmented Category 6 Plenum

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 .30" outside diameter (CMP).

Description

Construction

Bare copper wire insulated with FEP. 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
 - ISO/IEC 11801-2nd Edition
 - EU Directive 2002/95/EC (RoHS)

Flame Rating

- Plenum-NFPA 262, CMP
- ETL Listed

Applications

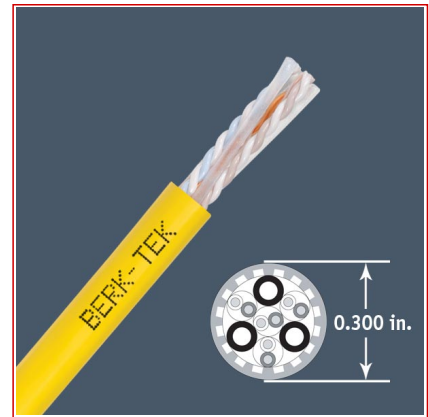
Berk-Tek's LANmark-10G2 UTP cable is intended for future and high speed data and multimedia applications including:

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

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- 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
Fire safety	Plenum 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)	0.044	(1.12)	Pair-3	White	Green
Cable diameter nom.–in. (mm)	0.300	(7.6)	Pair-4	White	Brown
Nominal cable weight–lb./kft. (kg/km)	43	(65)	Temperature Rating		
Max. installation tension–lb. (N)	25	(110)	Installation	0°C to +50°C	
Min. bend radius–in. (mm)	1.2	(30.5)	Operation	-20°C to +60°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 Plenum

Technical Data - Electrical

FREQ	RL		IL		NEXT		PSNEXT		ACR	
	MHz	dB min.	typical	dB max.	typical	dB min.	typical	dB min.	typical	dB min.
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.
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
📦 10130484	LANmark-10G2 Plenum CAT 6a UTP	Blue
📦 10137694	LANmark-10G2 Plenum CAT 6a UTP	Green
📦 10137695	LANmark-10G2 Plenum CAT 6a UTP	Black
📦 10138765	LANmark-10G2 Plenum CAT 6a UTP	Red
📦 10138182	LANmark-10G2 Plenum CAT 6a UTP	Violet

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Part Number	Description	Colour
 10137183	LANmark-10G2 Plenum CAT 6a UTP	Grey
 10137384	LANmark-10G2 Plenum CAT 6a UTP	White
 10137385	LANmark-10G2 Plenum CAT 6a UTP	Yellow
 10138181	LANmark-10G2 Plenum CAT 6a UTP	Pink
 10138767	LANmark-10G2 Plenum CAT 6a UTP	Orange

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Selling delivery information

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