

LANmark-1000 Category 6 Patch

LANmark-1000 is an ANSI/TIA/EIA Enhanced Category 6 verified cable that is ideal for Gigabit Ethernet applications. Exceptional electrical characteristics include: PSNEXT, PAELFEXT, ELFEXT, RL and LCL/TCL/EL TCTL (balance). LANmark-1000 was the first cable in the industry which set requirements for cable balance. Cable balance helps protect the network from the damaging effects of outside noise sources.

Description

Construction

24 AWG, stranded tinned copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with flame-retardant PVC.

Standards

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

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

Flame Rating

Patch-UL 1581, CM, 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)
- ELT 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 for existing applications
- Addition of balance requirements improves overall cable performance and reduces transmission errors
- Characterized to 500 MHz, 250 MHz greater than the standard

Standards

National TIA/EIA-568-B.2

LANmark-1000 Category 6 Patch

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
Fire safety	CM

Technical Data - Physical

Technical Data - Physical			Color Code		
			Pair-1	White/Blue	Blue
Conductor	24 AWG Stranded Tinned Copper		Pair-2	White/Orange	Orange
Conductor diameter—in. (mm)	0.024	(0.61)	Pair-3	White/Green	Green
Insulated Conductor Diameter- in. (mm)	0.04	(1.02)	Pair-4	White/Brown	Brown
Cable diameter—in. (mm)	0.224	(5.69)	Temperature Rating Installation 0°C to +50°C Operation -20°C to +75°C		
Nominal cable weight—lb./kft. (kg/km)	25	(37)			
Max. installation tension—lb. (N)	25	(110)			
Min. bend radius—in. (mm)	1	(25.4)			

Parametric Measurements

Mutual Capacitance	4.4 nF/100 m nom., 5.6 nF/100 m max. @ 1 KHz
DC resistance	9.09 Ohms/100 m max.
Skew	25 ns/100 m nom, 30 nsec/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	70% nom.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-350 MHz
DC Resistance Unbalance:	3% max.

Technical Data - Electrical

FREQ MHz	SRL (dB)	RL (dB)	IL (dB/100m)	PS-NEXT (dB)	NEXT (dB)	ELFEXT (dB)	PS-ELFEXT (dB)	LCL/TCL (dB)	EL TCTL (dB)
	min.	min.	max.	min.	min.	min.	min.	min.	min.
1	26.0	20.0	2.4	73.3	75.3	68.8	65.8	50.0	35.0
4	26.0	23.6	4.6	64.3	66.3	56.7	53.7	43.0	22.0
10	26.0	26.0	7.1	58.3	60.3	48.8	45.8	40.0	15.0
16	26.0	26.0	9.0	55.3	57.3	44.7	41.7	37.0	10.9
20	26.0	26.0	10.1	53.8	55.8	42.7	39.7	36.0	9.0
31.25	25.0	25.0	12.7	50.9	52.9	38.9	35.9	35.1	5.1

LANmark-1000 Category 6 Patch

62.5	23.5	23.5	18.4	46.4	48.4	32.8	29.8	32.0	—
100	22.5	22.5	23.6	43.3	45.3	28.8	25.8	30.0	—
200	21.0	21.0	34.6	38.8	40.8	22.7	19.7	27.0	—
250	20.5	20.5	39.1	37.3	39.3	20.8	17.8	26.0	—
350	19.8	19.8	47.4	35.2	37.2	17.9	14.9	—	—
500	19.0	19.0	58.3	32.8	34.8	14.8	11.8	—	—

IMPORTANT: Berk-Tek performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the tables of data shown which are presented to demonstrate our guarantees at “representative” frequencies. Values above 350 MHz are provided for engineering information. Limited Combustible version also available. Other jacket colors available.

Product List

☎=Make to order, 📦=Make to stock

Part Number	Description	Colour	Packaging
☎ 10032678	LANmark-1000 Patch	Grey	Reel
☎ 10032679	LANmark-1000 Patch	White	Reel
☎ 10032690	LANmark-1000 Patch	Red	Reel
☎ 10033898	LANmark-1000 Patch	Orange	Reel
☎ 10032693	LANmark-1000 Patch	Green	Reel
☎ 10049499	LANmark-1000 Patch	Cream	Reel
☎ 10032680	LANmark-1000 Patch	Blue	Reel
☎ 10032681	LANmark-1000 Patch	Yellow	Reel
☎ 10032691	LANmark-1000 Patch	Violet	Reel
☎ 10032692	LANmark-1000 Patch	Black	Reel
☎ 10032700	LANmark-1000 Patch	Pink	Reel

☎ = Make to order, 📦 = Make to stock

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.