

Power Sum Category 5e 25-Pair UTP Plenum

Berk-Tek's Category 5e 25 pair UTP Cables are designed for use in data and voice backbone applications and are ideal for Category 5e zone cabling applications and interconnect cable assemblies.

Description

Construction

24 AWG bare copper wire insulated with FEP (plenum). Two layer core construction jacketed in flame-retardant fluoropolymer (plenum).

Standards

- North American: ANSI/TIA/EIA-568-B.2 Category 5e Backbone, UL 444 and C22.2 No. 214-02
- International: EU Directive 2002/95/EC (RoHS)

Flame Rating

- Plenum - NFPA 262, CMP
- ETL Listed

Applications

Berk-Tek's 25 pair power sum Category 5e cable is intended for voice and data applications including:

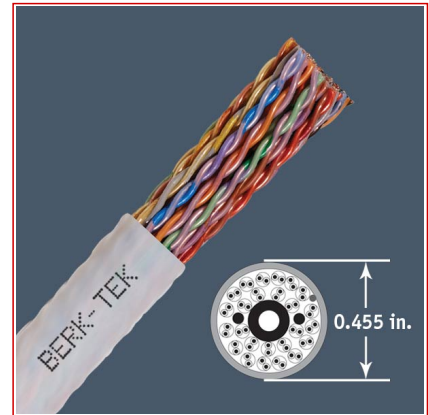
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|--------------|------------|----------|
| • ATM | 155 Mb/s | 155 Mb/s |
| • IEEE 802.3 | 100BASE-TX | 100 Mb/s |
| • CDDI | | 100 Mb/s |
| • IEEE 802.3 | 10BASE-T | 10 Mb/s |

Features

- ETL Verified to TIA/EIA-568-B.2 Category 5e backbone cable power sum performance
- Supports 10BASE-T, 100BASE-TX, 1000BASE-T, Token Ring, TP-PMD, Voice, Multimedia, 155 Mb/s ATM
- Small diameter and flexible construction with stable cable geometry.
- Ideally suited for backbone, cross-connect and pre-connectorized assemblies.

Benefits

- Supports current networking protocols
- Simplified structured cabling solution preserving long-term network investment
- High-performance multi-pair cable assemblies compatible with today's most common network interconnections.
- Characterized to 250 MHz, 150 MHz greater than the standard



Standards

National TIA/EIA-568-B.2

Power Sum Category 5e 25-Pair UTP Plenum

Characteristics

Construction characteristics	
Type of cable	UTP
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	25
Usage characteristics	
Packaging	Reel
Field of application	Indoor
Category	Cat. 5e
Fire safety	Plenum Rated

Technical Data - Physical

Technical Data - Physical			Color Code	
Conductor	24 AWG Bare Copper		See Below	
Conductor diameter—in. (mm)	0.021	(0.53)		
Insulated Conductor Diameter- in. (mm)	0.037	(0.94)		
Cable diameter—in. (mm)	0.455	(11.6)		
Nominal cable weight—lb./kft. (kg/km)	142	(210)		
Max. installation tension—lb. (N)	25	(110)		
Min. bend radius—in. (mm)	6.9	(175)	Temperature Rating	
			Installation	0°C to +50°C
			Operation	-20°C to +200°C

Color Code

Pair 1	White/Blue	Blue/White	Pair 13	Black/Green	Green/Black
Pair 2	White/Orange	Orange/White	Pair 14	Black/Brown	Brown/Black
Pair 3	White/Green	Green/White	Pair 15	Black/Gray	Gray/Black
Pair 4	White/Brown	Brown/White	Pair 16	Yellow/Blue	Blue/Yellow
Pair 5	White/Gray	Gray/White	Pair 17	Yellow/Orange	Orange/Yellow
Pair 6	Red/Blue	Blue/Red	Pair 18	Yellow/Green	Green/Yellow
Pair 7	Red/Orange	Orange/Red	Pair 19	Yellow/Brown	Brown/Yellow
Pair 8	Red/Green	Green/Red	Pair 20	Yellow/Gray	Gray/Yellow
Pair 9	Red/Brown	Brown/Red	Pair 21	Violet/Blue	Blue/Violet
Pair 10	Red/Gray	Gray/Red	Pair 22	Violet/Orange	Orange/Violet
Pair 11	Black/Blue	Blue/Black	Pair 23	Violet/Green	Green/Violet
Pair 12	Black/Orange	Orange/Black	Pair 24	Violet/Brown	Brown/Violet
			Pair 25	Violet/Gray	Gray/Violet

Application note: If installing as 6 4-pr. connections, use sequential pairs (1-4, 5-8, etc.) to ensure standard performance

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Technical Data - Parametrics

Mutual Capacitance	5.6 nF/100 m nom. @ 1 KHz
DC resistance	9.38 Ohms/100 m max.
Skew	45 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	72% nom.
Input Impedance	100 ± 15% 0.772-100 MHz
DC Resistance Unbalance:	5% max.

Technical Data - Electrical

FREQUENCY (MHz)	Insertion Loss (dB/100 m max.)	RL (dB min.)	SRL (dB min.)	PS-NEXT (dB min.)	NEXT (dB min.)	ELFEXT (dB min.)	PS-ELFEXT (dB min.)
1	2	20	25	62.3	65.3	63.8	60.8
4	4.1	23	25	53.2	56.3	51.7	48.7
10	6.5	25	25	47.3	50.3	43.8	40.8
16	8.2	25	25	44.2	47.3	39.7	36.7
20	9.3	25	25	42.7	45.8	37.7	34.7
31.25	11.7	23.6	23.6	39.8	42.9	33.9	30.9
62.5	17	21.5	21.5	35.3	38.4	27.8	24.8
100	22	20.1	20.1	32.3	35.3	23.8	20.8
150	27.5	18.9	18.9	29.7	32.7	20.2	17.2
200	32.4	18.0	18.0	27.8	30.8	17.7	14.7
250	36.9	17.3	17.3	26.3	29.3	15.8	12.8

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 100 MHz are for engineering information. Other jacket colors available.

Product List

☎ = Make to order, 📦 = Make to stock

Part Number	Description	Colour
📦 10059632	Power Sum Category 5e 25 pair UTP Plenum	Grey
📦 10119643	Power Sum Category 5e 25 pair UTP Plenum	Yellow
📦 10089521	Power Sum Category 5e 25 pair UTP Plenum	White
📦 10133971	Power Sum Category 5e 25 pair UTP Plenum	Blue
📦 10128219	Power Sum Category 5e 25 pair UTP Plenum	Orange
📦 10179231	Power Sum Category 5e 25 pair UTP Plenum	Violet

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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.