

Berk-Tek's IP 5e CMP, UTP cables are designed to provide improved performance for emerging technologies and applications that require next generation 4-pair Power over Ethernet (4PPoE) support up to 100 watts and bandwidth requirements up to 1 Gigabit Ethernet.

DESCRIPTION

Today, more and more devices are being connected to and powered through our IP networks than ever before. Many of the devices support emerging technologies and applications that require higher power PoE support up to 100 watts over 4 pairs (4PPoE). While some of these applications are power intensive, they do not all require high bandwidth speeds and only need up to 1 Gigabit Ethernet support. The Berk-Tek IP 5e CMP cable was specifically designed for these type of technologies and applications and is the ideal choice to support high power (4PPoE) when bandwidth requirements do not exceed 1 Gigabit Ethernet.

Construction

22 AWG 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, jacketed with polymer alloy.

Flame Rating

- Plenum - NFPA 70, CMP-LP (0.7A)
- UL Listed

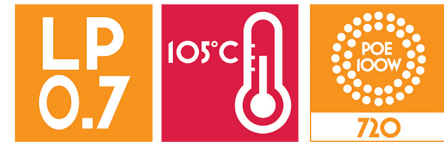
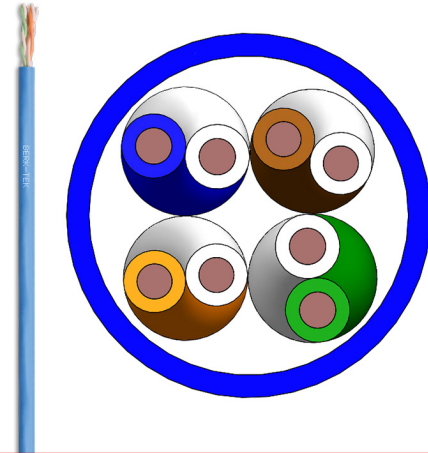
Features

- The IP 5e cable utilizes 22 AWG copper conductors
- Small OD size of 0.240"
- No center filler
- All FEP insulated conductors
- 105°C temperature listing
- Usable bandwidth up to 250 MHz
- Tested in cable bundles to simulate real world worst case scenario

Benefits

- Lower temperature rise versus traditional Category 5e or 6 to support 4PPoE
- Reduced energy costs
- Improved flexibility and ease of installation
- Bandwidth beyond Category 5e requirements - guaranteed performance
- 88% power efficiency
- Supports emerging technologies

Country of Origin: USA



STANDARDS

International ISO/IEC 11801

National ANSI/TIA 568.2-D;
UL 444

CHARACTERISTICS

Construction characteristics

Type of cable	UTP
Conductor material	22 AWG Bare Copper
Insulation	FEP
Jacket Material	Polymer Alloy

Dimensional characteristics



Number of pairs	4
Length per reel	1000.0 ft

Usage characteristics

Field of application	Indoor
Category	Cat. 5e
Fire safety	CMP - Plenum Rated
Recommended installation temperature range	0 .. 50 °C
Recommended operating temperature range	-20 .. 105 °C

PRODUCT LIST

Part Number	Description	Colour	Packaging
 11098078 New	LANmark-IP 5e	Blue	Reel in a box
 11098080 New	LANmark-IP 5e	Grey	Reel in a box
 11098079 New	LANmark-IP 5e	White	Reel in a box

 = Make to order,  = In stock

LANMARK-IP 5E - TECHNICAL INFORMATION

Electrical Characteristics

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

FQ	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)	
	TIA	PG	TIA	PG	TIA	PG	TIA	PG
1	20.00	20.00	65.30	66.30	62.30	62.30	63.80	63.80
4	23.00	23.00	56.30	57.30	53.30	53.30	51.80	51.70
10	25.00	25.00	50.30	51.30	47.30	47.30	43.80	43.80
16	25.00	25.00	47.20	48.30	44.20	44.30	39.70	39.70
20	25.00	25.00	45.80	46.80	42.80	42.80	37.80	37.70
31.25	23.60	23.60	42.90	43.90	39.90	39.90	33.90	33.90
62.5	21.50	21.50	38.40	39.40	35.40	35.40	27.90	27.80
100	20.10	20.10	35.30	36.30	32.30	32.30	23.80	23.80
150	—	18.90*	—	33.70*	—	29.70*	—	—
200	—	18.00*	—	31.80*	—	27.80*	—	—
250	—	17.30*	—	30.30*	—	26.30*	—	—
300	—	16.80*	—	29.20*	—	25.20*	—	—
350	—	16.30*	—	28.20*	—	24.20*	—	—

FQ	IL (dB/100 m)		ACR** (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)	
	TIA	PG	TIA	PG	TIA	PG	TIA	PG
1	2.00	2.00	63.30	64.30	60.30	60.30	60.80	60.80
4	4.10	3.60	52.20	53.20	49.20	49.20	48.80	48.70
10	6.50	5.80	43.80	44.80	40.80	40.80	40.80	40.80
16	8.20	7.30	39.00	40.00	36.00	36.00	36.70	36.70
20	9.30	8.20	36.50	37.50	33.50	33.50	34.80	34.70
31.25	11.70	10.40	31.20	32.20	28.20	28.20	30.90	30.90
62.50	17.00	15.00	21.40	22.40	18.40	18.40	24.90	24.80
100	22.00	19.30	13.30	14.30	10.30	10.30	20.80	20.80
150	—	274.10*	—	6.10*	—	—	—	—
200	—	28.20*	—	—	—	—	—	—
250	—	32.00*	—	—	—	—	—	—
300	—	—	—	—	—	—	—	—
350	—	—	—	—	—	—	—	—

*Values provided for reference only
 **ACR values provided as calculations

Parametric Measurements

Description

Mutual Capacitance	5.2 nF Ohms/100m max.
DC Resistance	5.53 Ohms/100m max.
Skew	45 ns/100m max.
Pair-to-Ground Unbalance	330 pF/100m max.
Velocity of Propagation	72% nom.
DC Resistance Unbalance	5% max.

Color Code

Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

Supported Applications

Standard	Application	Speed
IEEE 802.3	1000BASE-T	1 Gb/s
ATM	155 Mb/s	155 Mb/s
CDDI		100 Mb/s
IEEE 802.3	100BASE-T	10 Mb/s
IEEE 802.3 af	PoE	1 GB/s
IEEE 802.3 at	PoE+, Type 1 & 2	1 Gb/s
IEEE 802.3	10BASE-T	10 Mb/s
IEEE 802.3bt	4PPoE Type 3 and 4	1 Gb/s

Technical Data - Physical

Conductor	22 AWG Bare Copper	
Conductor Diameter - in. (mm)	0.026	(0.660)
Insulated Conductor Diameter - in. (mm)	0.045	(1.14)
Cable Diameter - in. (mm)	0.240	(6.10)
Nom. Cable Weight - lb./kft (kg/kft)	20	(9)
Max. Installation Tension - lb. (N)	25	(110)
Min. Bend Radius - in. (mm)	1.00	(25.40)

LANMARK-IP 5E - JACKET LEGEND

“BERK-TEK LANMARK-IP CAT 5E 22 AWG CMP 105C C(UL)US CMP-LP (0.7A) ETL VERIFIED ANSI/TIA-568.2-D [DATE] [COUNTER]”

SELLING INFORMATION

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