

## Karbon Cable CAT5E CMP Plenum Lan Cable

### Product Description

- U/UTP, 24AWG solid bare copper, CAT.5E, CMP
- With rip cord

### Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 350 MHz.
- Reelex II carton and easy to pull out.
- Carton with one layer corrugated design providing sufficient strength and saving packaging space.

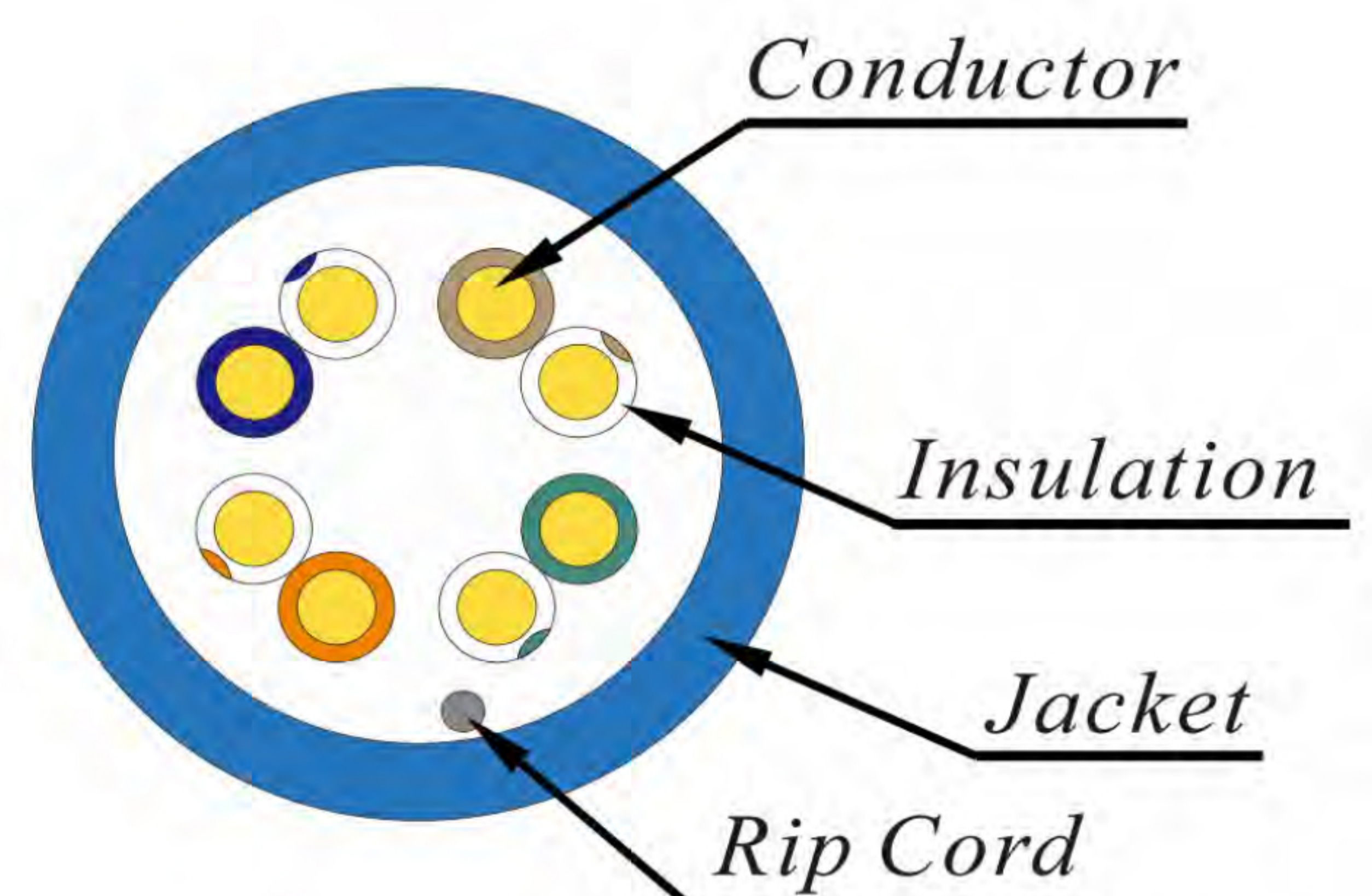
### Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- IEEE 802.3u 100BASE-T and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

### Applicable Standard

- Electrical Transmission
  - ANSI/TIA-568-C.2 (2009)
  - ISO/IEC 11801 (Edition 2.2)
  - IEC 61156-5 (Edition 2.1)
- Flame Test
  - NFPA 262 (CMP)
- Material and Construction
  - UL 444
  - CSA 22.2 NO.214
- EU Directive 2011/65/EU (RoHS2)
- EU Directive 2006/95/EC (LVD)

### Sectional Drawing



# KARBON CABLE

## Material and Construction

Conductor	Material	24AWG solid bare copper	
Insulation	Material	Fluorinated Ethylene Propylene (FEP)	
	Color code & diameter	Blue & white/blue Stripe	0.84 ± 0.02 mm
		Orange & white/orange stripe	0.82 ± 0.02 mm
		Green & white/green stripe	0.83 ± 0.02 mm
	Brown & white/brown stripe	0.82 ± 0.02 mm	
Twisted	Description	Left hand direction	
Assembly	Description	Left hand direction	
Rip cord	Material	Polyester multi-yarn	
Jacket	Material	Low smoke flame retardant polyvinyl chloride (LSFRPVC)	
	Diameter	4.4 ± 0.2 mm	
	Thickness	0.35 ± 0.03 mm	
	Color	Per customer's request	
Marking	KARBON CABLE CAT 5E E503612-W UTP 4PR 24AWG 75°C C(UL)US CMP---ETL VERIFIED TO TIA-568-C.2 mmyy <sup>1</sup> RoHS COMPLIANT XXXXFT  Note 1: mmyy is date code.		

## Usage & Environmental Condition

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius		≥ 4 times of overall diameter
Maximum pulling tension		≤ 110 N

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## Physical & Electrical Characteristics (at 20°C)

Temperature rating	75°C
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω/100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ • km
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

## Transmission Performance (at 20°C)

Frequency (MHz)	IL	NEXT	PS.NEXT	ACR	PS.ACR	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
	Max. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Max. ns/100m	Max. ns/100m
1	2.04	65.30	62.30	63.26	60.26	63.80	60.80	20.00	570.00	45.00
4	4.05	56.27	53.27	52.22	49.22	51.76	48.76	23.01	552.00	
8	5.77	51.75	48.75	45.99	42.99	45.74	42.74	24.52	546.73	
10	6.47	50.30	47.30	43.83	40.83	43.80	40.80	25.00	545.38	
16	8.25	47.24	44.24	38.99	35.99	39.72	36.72	25.00	543.00	
20	9.27	45.78	42.78	36.52	33.52	37.78	34.78	25.00	542.05	
25	10.42	44.33	41.33	33.91	30.91	35.84	32.84	24.32	541.20	
31.25	11.72	42.88	39.88	31.15	28.15	33.90	30.90	23.64	540.44	
62.5	16.99	38.36	35.36	21.37	18.37	27.88	24.88	21.54	538.55	
100	21.98	35.30	32.30	13.33	10.33	23.80	20.80	20.11	537.60	
150	27.54	32.66	29.66	5.11	2.11	20.28	17.28	18.87	536.94	
200	32.42	30.78	27.78	N.A.	N.A.	17.78	14.78	18.00	536.55	
250	36.85	29.33	26.33	N.A.	N.A.	15.84	12.84	17.32	536.28	
300	40.97	28.14	25.14	N.A.	N.A.	14.26	11.26	16.77	536.08	
350	44.85	27.14	24.14	N.A.	N.A.	12.92	9.92	16.30	535.92	

Values above 100MHz are for information only.