

# Cat 5e

## HITACHI Inspire the Next

### Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified.
- Low Smoke Plenum construction.
- Tested from 1 to 400 MHz.
- CMR-LSHF version offers a halogen free design for improved environmental performance.
- Supports up to 80 watts of power.

### Packaging

- 1,000 foot (305m) reels
- 1,000 foot (305m) Reelex (featuring reverse sequential numbering)

### Options

- CMP-50 rated cables available

### Applications

- Including:
  - Gigabit Ethernet (IEEE 802.3ab)
  - 100 Mbps Ethernet (IEEE 802.3u)
  - 1000 Mbps ATM
  - 622 Mbps ATM
  - 15W PoE (IEEE 802.3af)
  - 30W PoE+ (IEEE 802.3at)
  - 60W PoE++ (IEEE 802.3bt Type 3)

### Temp Range

- Storage Temperature  
-40C to +60C (-40F to +140F)
- Installation Temperature  
0C to +60C (+32F to +140F)
- Operation Temperature  
-20C to +75C (-4F to +167F)

## Category 5e (Plenum)

c(UL)us Listed Type CMP, CSA Type FT6

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		in.	mm	lbs/1000ft	kg/305m
39419-8-XXY	4	.18	4.57	20.36	9.24

## Category 5e (Riser)

c(UL)us Listed Type CMR, CSA Type FT4

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		in.	mm	lbs/1000ft	kg/305m
38696-8-XXY	4	.17	4.55	17.86	8.10

## Category 5e (Riser-Low Smoke Halogen Free)

c(UL)us Listed Type CMR-LSHF (LSHF: Low Smoke Halogen Free)

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		in.	mm	lbs/1000ft	kg/305m
30308-8-XXY	4	.189	4.80	20.37	9.24

### Building a Part Number

Base Part Number Ex.	No. of Conductors	Jacket Color	Reel Type
39419	8	XX	Y

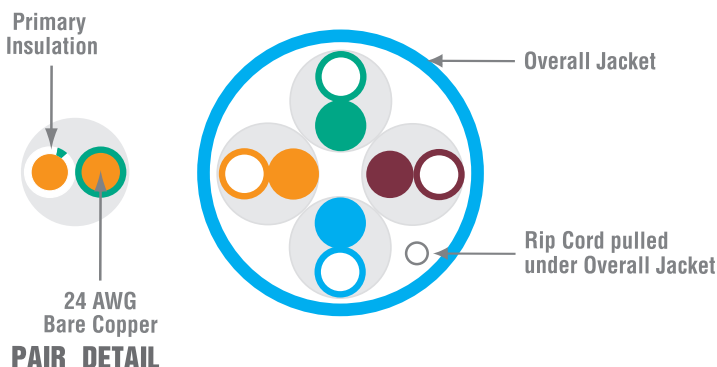
Jacket Colors (XX):

Black(BK); Blue(BL); Brown(BR); Gray(GA); Green(GR); Red(RD); White(WH); Yellow(YE)

Reel Type (Y):

Reelex Boxes(2); Reels(3)

## Features



DIELECTRIC MATERIALS	RISER	PLENUM	LSHF
Primary Insulation	Polyolefin	Plenum-rated Fluoropolymer	Polyethylene
Overall Jacket	Flame-retardant Thermoplastic	Flame-retardant Thermoplastic	Zero-Halogen Flame-retardant Thermoplastic

Hitachi Cable America reserves the right to revise any specifications.

# UTP Category 5e

Copper

## Electrical Characteristics

Input impedance	100 ± 15Ω (1.0 to 100 MHz)
Maximum resistance unbalance	5%
Maximum capacitance unbalance	330 pF/100 meters
Maximum delay skew	45 ns/100 meters
Nominal velocity of propagation (NVP)	68%, riser 70%, plenum
Voltage Rating	300 Volts
Ampacity <sup>1</sup>	.4 Amps/conductor



Photo is for representation purposes only.

## Transmission Specifications

ANSI/TIA 568-C.2 Category 5e Verified  
ISO/IEC 11801, 2nd ed. Class D Compliant

Freq. (MHz)	Ins. Loss		NEXT		PSNEXT		ACR		PSACR		ACRF		PSACRF		Return Loss	
	Std.	Max.	Std.	Min.	Std.	Min.	Cal.	Min.	Cal.	Min.	Std.	Min.	Std.	Min.	Std.	Min.
1	2.0	2.0	65.3	65.3	62.3	62.3	63.3	63.3	60.3	60.3	63.8	63.8	60.8	60.8	20.0	20.0
4	4.1	4.1	56.3	56.3	53.3	53.3	52.2	52.2	49.2	49.2	51.8	51.8	48.8	48.8	23.0	23.0
8	5.8	5.8	51.8	51.8	48.8	48.8	46.0	46.0	43.0	43.0	45.7	45.7	42.7	42.7	24.5	24.5
10	6.5	6.5	50.3	50.3	47.3	47.3	43.8	43.8	40.8	40.8	43.8	43.8	40.8	40.8	25.0	25.0
16	8.2	8.2	47.2	47.2	44.2	44.2	39.0	39.0	36.0	36.0	39.7	39.7	36.7	36.7	25.0	25.0
31.25	11.7	11.7	42.9	42.9	39.9	39.9	31.2	31.2	28.2	28.2	33.9	33.9	30.9	30.9	23.6	23.6
62.5	17.0	17.0	38.4	38.4	35.4	35.4	21.4	21.4	18.4	18.4	27.9	27.9	24.9	24.9	21.5	21.5
100	22.0	22.0	35.3	35.3	32.3	32.3	13.3	13.3	10.3	10.3	23.8	23.8	20.8	20.8	20.1	20.1
155*	-	28.1	-	32.4	-	29.4	4.4	4.4	1.4	1.4	-	20.0	-	17.0	-	18.8
200*	-	32.4	-	30.8	-	27.8	-	-	-	-	-	17.8	-	14.8	-	18.0
250*	-	36.9	-	29.3	-	26.3	-	-	-	-	-	15.8	-	12.8	-	17.3
400*	-	48.5	-	26.3	-	23.3	-	-	-	-	-	11.8	-	8.8	-	15.9

\*Frequencies beyond the TIA and ISO requirements are for information only.  
All values are dB/100m.

1. Ampacity rating per NEC 725.144 of NFPA NEC (2017) up to 192 cable bundle.

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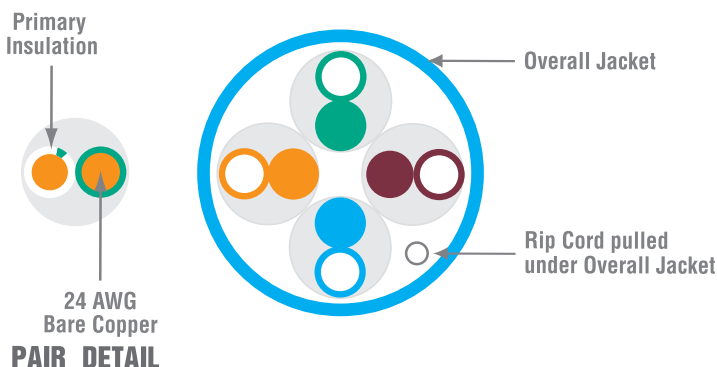
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