

Cat 6 Premium

Copper

HITACHI Inspire the Next

Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified.
- Low Smoke Plenum construction.
- Guaranteed minimum performance.
- Enhanced performance beyond TIA Standard.
- Tested from 1 to 660 MHz.

TIA PARAMETER	GUARANTEED HEADROOM
NEXT loss	+5 dB
PSNEXT loss	+5 dB
ACRF	+6 dB
PSACRF	+6 dB

Packaging

- 1,000 foot (305m) reels
- Reverse sequential footage markings standard on a 1,000 packages.

Options

- CMP-50 rated cables available

Applications

- Including:
 - HDBase-T A & B
 - 5 Gigabit Ethernet (IEEE 802.3bz)
 - 2.5 Gigabit Ethernet (IEEE 802.3bz)
 - 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)
 - 100W PoE++ (IEEE 802.3bt Type 4)

Temp Range

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

Premium UTP (Plenum)

c(UL)us Listed Type CMP (UL 910), CSA Type FT6

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D. in.	mm	CABLE WEIGHT lbs/1000ft	kg/305m
30183-8-XXY	4	.20	5.1	25.74	11.68

Premium UTP (Riser)

c(UL)us Listed Type CMR (UL 1666), CSA Type FT4

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D. in.	mm	CABLE WEIGHT lbs/1000ft	kg/305m
30212-8-XXY	4	.215	6.22	26.93	12.22

Building a Part Number

Base Part Number Ex.	No. of Conductors	Jacket Color	Reel Type
30183	8	XX	Y

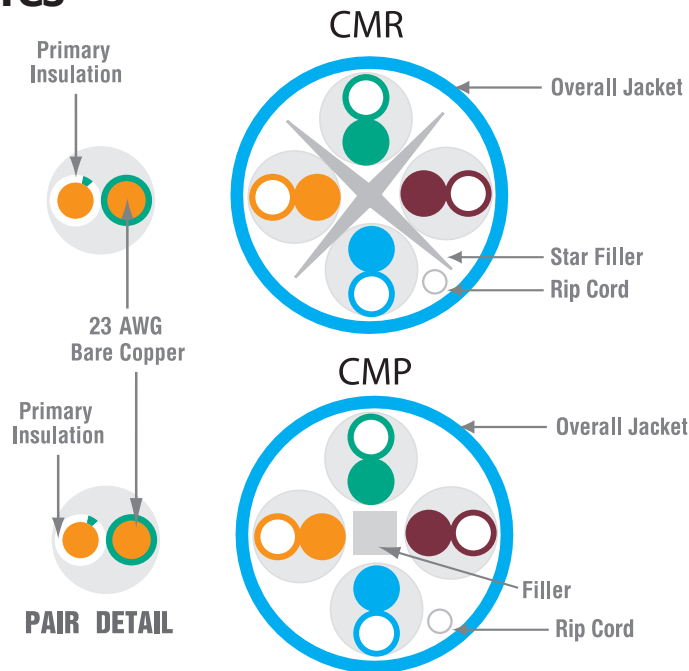
Jacket Colors (XX):

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

Reel Type (Y):

Reel Boxes(2); Reels(3)

Features



DIELECTRIC MATERIALS	RISER	PLENUM
Primary Insulation	Polyolefin	Plenum-rated fluoropolymer
Overall Jacket	Flame-retardant thermoplastic	Low-smoke, flame-retardant thermoplastic
Star Filler	Flame-retardant thermoplastic	Plenum-rated polymer

Hitachi Cable America reserves the right to revise any specifications.

Enhanced UTP Category 6

Copper

Electrical Characteristics

Input Impedance	100 ± 15Ω (1.0 to 100 MHz) 100 ± 20Ω (101 to 160 MHz) 100 ± 22Ω (161 to 250 MHz)
Maximum conductor resistance	9.38 Ω/100 meters @ 20C
Maximum resistance unbalance	3%
Maximum capacitance unbalance	330 pF/100 meters
Maximum delay skew	35 ns/100 meters (CMP) 45 ns/100 meters (CMR)
Nominal velocity of propagation (NVP)	riser, 68% plenum, 70%
Voltage Rating	300 Volts

Bundle Size	1	2-7	8-19	20-37	38-61	62-91	92-192
Cable Temp	75°C	75°C	75°C	75°C	75°C	75°C	75°C
23 AWG	2.5	1.5	1.1	0.8	0.7	0.7	0.5

The table above is derived from the one approved by the National Fire Protection Agency and used in the National Electrical Code, NFPA-70. The complete table can be found in sections 725.144 and 800 Communication Circuits of the code. The table identifies the ampacity of each conductor (in amperes) in a 4-pair Class 2 or Class 3 data cable. Ambient temperature used for development of the table is 30°C (86° F) with all conductors in all cables carrying current. The table is based on 60°C (140°F), 75°C (167°F) and 90°C (194°F) rated cables. All cable temps are operational temp ratings. Cables with temp ratings above 90c would deliver additional power handling capacity.



Photo is for representation purposes only.

Transmission Specifications

ANSI/TIA-568.2-D Category 6 Verified
ISO/IEC 11801, 2nd ed. Class E 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	74.3	79.3	72.3	77.3	72.3	77.3	70.3	75.3	67.8	73.8	64.8	70.8	20.0	20.0
4	3.8	3.8	65.3	70.3	63.3	68.7	61.5	66.5	59.5	64.5	55.8	61.8	52.8	58.8	23.0	23.0
8	5.3	5.3	60.8	65.8	58.8	63.8	55.4	60.4	53.4	58.4	49.7	55.7	46.7	52.7	24.5	24.5
10	6.0	6.0	59.3	64.3	57.3	62.3	53.3	58.3	51.3	56.3	47.8	53.8	44.8	50.8	25.0	25.0
16	7.6	7.6	56.2	61.2	54.2	59.2	48.7	53.7	46.7	51.7	43.7	49.7	40.7	46.7	25.0	25.0
31.25	10.7	10.7	51.9	56.9	49.9	54.9	41.2	46.2	39.2	44.2	37.9	43.9	34.9	40.9	23.6	23.6
62.50	15.4	15.4	47.4	52.4	45.4	50.4	32.0	37.0	30.0	35.0	31.9	37.9	28.9	34.9	21.5	21.5
100	19.8	19.8	44.3	49.3	42.3	47.3	24.5	29.5	22.5	27.5	27.8	33.8	24.8	30.8	20.1	20.1
155	25.2	25.2	41.1	46.4	39.4	44.4	16.3	21.3	14.3	19.2	24.0	30.0	21.0	27.0	18.8	18.8
200	29.0	29.0	39.8	44.8	37.8	42.8	10.8	15.8	8.8	13.8	21.8	27.8	18.8	24.8	18.0	18.0
250	32.8	32.8	38.3	43.3	36.3	41.3	5.5	10.5	3.5	8.5	19.8	25.8	16.8	22.8	17.3	17.3
300*	-	36.4	-	42.1	-	40.1	0.7	5.7	-	3.7	-	24.3	-	21.3	-	16.8
350*	-	39.8	-	41.1	-	39.1	-	1.4	-	-	-	22.9	-	19.9	-	16.3
400*	-	43.0	-	40.3	-	38.3	-	-	-	-	-	21.8	-	18.8	-	15.9
500*	-	48.9	-	38.8	-	36.8	-	-	-	-	-	19.8	-	16.8	-	15.2
555*	-	52.0	-	38.1	-	36.1	-	-	-	-	-	18.9	-	15.9	-	14.9
660*	-	57.7	-	37.0	-	35.0	-	-	-	-	-	17.4	-	14.4	-	14.4

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