

## Hitachi Cable America introduces Next Generation High-Performance Cable:

# Supra 10G-XE™

## 10 Gigabit Category 6A UTP

30303 Plenum / 30304 Riser

### Improved Cable Diameter - Small .27" OD

- 20% size reduction compared to ANSI/TIA 568-C.2 OD maximum for CAT6A
- More efficient space utilization when replacing obsolete cables in existing cable pathways
- Small OD minimizes cable congestion in small telecommunication closets

### Superior transmission performance over traditional UTP and discontinuous designs

- Noise Control Barrier™ improves immunity to Alien Crosstalk and EMI/RFI
- EMI/RFI immunity nearly equal to fully shielded/bonded cable design
- UTP design enables compatibility with all 6A compliant unshielded connectivity
- Demonstrated zero Link-Loss events during EMC testing\*
- Significantly improved Alien Crosstalk performance compared to standard Category 6A UTP cable

### UL Verified electrical performance

- UL verified Category 6A TIA-568-C.2
- Cable Component tested to 660 MHz
- Permanent link and channel tested with all popular connectivity brands

### Supports all data network and low voltage building system standards

- 10Gbps Ethernet to 100m for Campus Network and Enterprise applications
- Emerging applications such as 2.5 Gbps & 5 Gbps to 100m
- Can be mingled safely in J-hooks and trays with other category cables
- 4-pair PoE applications including IEEE 802.3bt 100 watts
- Limited Power (LP) rating of .6 Amps/conductor ensures PoE support up to 120 watts

### Ideal interoperability guarantee with user-preferred brand connectivity

- Included in Hitachi's OSA Lifetime Warranty program
- Ideal product for next generation network evolution and green field applications

### Made in U.S.A. at Manchester, NH facility

\*IEC 61000-4-3 Electromagnetic compatibility (EMC) -Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test.

# Cat 6A

# Supra 10G-XE™

10 Gigabit Enhanced UTP

## Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified TIA-568-C.2.
- Low Smoke Plenum construction.
- Tested from 1 to 660 MHz.
- Small O.D. allows more cables per conduit.
- Noise Control Barrier (NCB™) technology allows for a reduced outside diameter and electrical performance that is superior to discontinuous shield designs.
- UL Tested (LP) for maximum power support.
- Supports up to 120 watts for Power Over Ethernet (PoE).

## Packaging

- 1,000 foot (305m) reels

## Options

- Available in LSZH

## Applications

- Including:

HDBase-T  
 10 Gigabit Ethernet (IEEE 802.3an)  
 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  
-40C to +60C (-40F to +140F)
- Installation Temperature  
0C to +60C (+32F to +140F)
- Operation Temperature  
-20C to +75C (-4F to +167F)

## Category 6A (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
30303-8-XXY	4	.27	6.858	40.34	18.29

Jacket Colors (XX): Black(BK); Blue(BL); Brown(BR); Gray(GA); Green(GR); Red(RD); White(WH); Yellow(YE); Violet(VI)  
 Reel Type (Y): Reels(3)

## Category 6A (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
30304-8-XXY	4	.275	6.985	39.02	17.70



## Electrical Characteristics

Input impedance	100 ± 15Ω (1.0 to 100 MHz)	Max resistance unbalance	3%
	100 ± 20Ω (100 to 250 MHz)	Max capacitance unbalance	330 pF/100 meters
	100 ± 25Ω (251 to 500 MHz)	Max delay skew	45 ns/100 meters
Voltage Rating	300 Volts	Nominal velocity of propagation (NVP)	68%, riser / 70%, plenum
LP Rating (UL)	.6 Amps/conductor		

## Features

### DIELECTRIC MATERIALS

#### RISER

Primary Insulation	Polyolefin
Overall Jacket	Flame-retardant thermoplastic
Star Filler	Flame-retardant thermoplastic

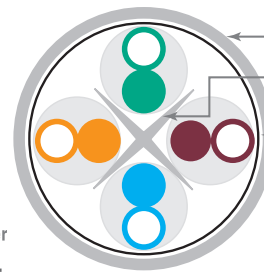
#### PLENUM

Primary Insulation	Plenum-rated fluoropolymer
Overall Jacket	Low-smoke, flame-retardant thermoplastic
Star Filler	Plenum-rated polymer

Primary Insulation



23 AWG Bare Copper PAIR DETAIL



Overall Jacket

Star Filler

Noise Control Barrier (NCB)™

## Transmission Specifications

ANSI/TIA 568-C.2 Category 6A Verified

ISO/IEC 11801, 2nd ed. Class EA Compliant

Freq. (MHz)	Ins. Loss	NEXT	PSNEXT	ACR	PSACR	ACRF	PSACRF	Return Loss	PSANEXT	PSANEXT	PSAACRF	PSAACRF
	Max.	Min.	Min.	Min.	Min.	Min.	Min.		TIA Std.	Min	TIA Std.	Min
1	2.1	74.3	72.3	72.2	70.2	67.8	64.8	20.0	67.0	73.0	67.0	73.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0	67.0	73.0	66.2	72.2
8	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5	67.0	73.0	60.1	66.1
10	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0	67.0	73.0	58.2	64.2
16	7.5	56.2	54.2	48.8	46.8	43.7	40.7	25.0	67.0	73.0	54.1	60.1
20	8.4	54.8	52.8	46.4	44.4	41.8	38.8	25.0	67.0	73.0	52.2	58.2
25	9.4	53.3	51.3	44.0	42.0	39.8	36.8	24.3	67.0	73.0	50.2	56.2
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6	67.0	73.0	48.3	54.3
62.5	15.0	47.4	45.4	32.4	30.4	31.9	28.9	21.5	65.6	71.6	42.3	48.3
100	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1	62.5	68.5	38.2	44.2
155	24.1	41.4	39.4	17.4	15.4	24.0	21.0	18.8	59.6	65.6	34.4	40.4
200	27.6	39.8	37.8	12.2	10.2	21.8	18.8	18.0	58.0	64.0	32.2	38.2
250	31.1	39.3	36.3	7.3	5.3	19.8	16.8	17.3	56.5	62.5	30.2	36.2
300	34.3	37.1	35.1	2.9	0.9	18.3	15.3	16.8	55.3	61.3	28.7	34.7
350	37.2	36.1	34.1	-	-	16.9	13.9	16.3	54.3	60.3	27.3	33.3
400	40.1	35.3	33.3	-	-	15.8	12.8	15.9	53.5	59.3	26.2	32.2
500	45.3	33.8	31.8	-	-	13.8	10.8	15.2	52.0	58.0	24.2	30.2
555*	47.9	33.1	31.1	-	-	12.9	9.9	14.9	51.3	57.3	23.3	29.3
660*	52.8	32.0	30.0	-	-	11.4	8.4	14.4	50.2	56.2	21.8	27.8

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

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