

# Indoor

Enhanced UTP

Copper

## Product Highlights

- REACH & RoHS 2 compliant
- Made in U.S.A.
- UL Verified ANSI/TIA-568.2-D
- 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

TIA Parameter	Guaranteed Headroom
PSANEXT loss	+6 dB
PSACRF	+6 dB

## Packaging

- 1,000 feet (305 m)
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12 Reels
- CMP Carton Weight (lbs): 43.64
- CMP Product Weight (lbs): 40.34
- \*weight may vary, call for CMR information

## Applications

- Including:
  - HDBase-T A & B
  - 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
  - 40°C to +60°C
  - (-40°F to +140°F)
- Installation Temperature
  - 0°C to +60°C
  - (+32°F to +140°F)
- Operation Temperature
  - Plenum**
    - 20°C to +90°C
    - (-4°F to +194°F)
  - Riser/Low Smoke Halogen Free**
    - 20°C to +75°C
    - (-4°F to +167°F)

## Supra 10G-XE (Plenum)

c(UL)us Listed Type CMP (NFPA 262), CSA Type FT6

PART #	# OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		inches	mm	lbs/1000 ft	kg/305 m
30303-8-XXY	4	0.250	6.35	34.60	15.69

## Supra 10G-XE (Riser)

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

PART #	# OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		inches	mm	lbs/1000 ft	kg/305 m
30304-8-XXY	4	0.275	6.985	39.02	17.70

## Supra 10G-XE (Riser-Low Smoke Zero Halogen Jacket)

c(UL)us Listed Type CMR (UL1666), CSA Type FT4

PART #	# OF PAIRS	CALCULATED CABLE O.D.		CABLE WEIGHT	
		inches	mm	lbs/1000 ft	kg/305 m
30295-8-XXY	4	0.28	7.11	39.02	17.70

## Building a Part Number

Base Part Number Ex.	No. of Conductors	Jacket Color	Reel Type
30303	8	XX	Y

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

## Features



### DIELECTRIC MATERIALS

#### PLENUM

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

#### RISER

- Primary Insulation: Polyolefin
- Overall Jacket: Flame-retardant Thermoplastic
- Star Filler: Flame-retardant Thermoplastic

Hitachi Cable America reserves the right to revise any specifications.

# Cat 6A Supra 10G-XE™

## Transmission Specifications

ANSI/TIA-568.2-D Category 6A Verified  
ISO/IEC 11801, 2nd ed. Class EA Compliant

	Ins. Loss	NEXT	PSNEXT	ACR	PSACR	ACRF	PSACRF	Return Loss	PSANEXT	PSANEXT	PSAACRF	PSAACRF
Freq. (MHz)	Max.	Min.	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	2.3	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	38.3	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.

Photo is for representation purposes only.



Copper

## Electrical Characteristics

Input Impedance:	100 ± 15Ω (1.0 to 100 MHz) 100 ± 20Ω (100 to 250 MHz) 100 ± 25Ω (251 to 500 MHz)
Maximum Resistance Unbalance:	3%
Maximum Capacitance Unbalance:	330 pF/100 meters
Maximum Delay Skew:	45 ns/100 meters
Nominal Velocity Of Propagation (Nvp):	70%, Plenum 68%, Riser
Voltage Rating:	300 Volts
LP Rating (UL) - CMP	0.6 Amps/conductor

Cable Ampacity Chart

Bundle Size	1		2-7		8-19		20-37		38-61		62-91		92-192	
	75°C	90°C	75°C	90°C	75°C	90°C	75°C	90°C	75°C	90°C	75°C	90°C	75°C	90°C
23 AWG	2.5	2.5	1.5	1.7	1.1	1.7	0.8	0.9	0.7	0.8	0.7	0.8	0.5	0.6

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.