

# Cat 8/8.2 S/FTP

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### Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- Low Smoke Riser construction.
- Tested to 2 GHz.
- Verified to ANSI/TIA 568-C.2-1 Category 8 and ISO/IEC 11801 Category 8.2.
- Conductor pairs are individually wrapped in foil.
- Overall braid.
- CMR-LSHF version offers a halogen free design for improved environmental performance.

### Packaging

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

### Applications

- Including:
  - HDBase-T A & B
  - 40 Gigabit Ethernet (IEEE 802.3bq)
  - 25 Gigabit Ethernet (IEEE 802.3bq)
  - 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
  - 20°C to +75°C (-4°F to +167°F)

## Category 8/8.2 F/UTP (Riser-Low Smoke Halogen Free)

c(UL)us Listed Type CMR-LSHF (UL 1666 & IEC 62821), CSA Type FT4

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D. in.	mm	CABLE WEIGHT lbs/1000ft	kg/305m
30307-8-XXY	4	.350	8.89	56.13	25.46

### Building a Part Number

Base Part Number Ex.	No. of Conductors	Jacket Color	Reel Type
30307	8	XX	Y

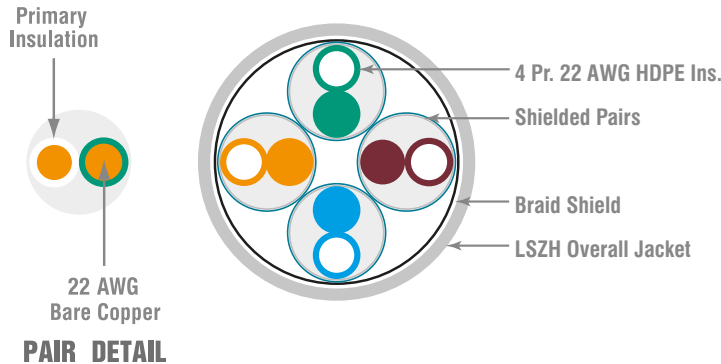
Jacket Colors (XX):

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

Reel Type (Y):

Reels(3)

### Features



DIELECTRIC MATERIALS	RISER
Primary Insulation	High-density Polyethylene
Overall Jacket	Zero-Halogen Flame-retardant Thermoplastic

Cable Ampacity Chart

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
22 AWG	3.0	1.8	1.2	0.9	0.8	0.7	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.

Hitachi Cable America reserves the right to revise any specifications.

## Electrical Characteristics

Maximum resistance unbalance	4% (Within Pairs), 5% (Between Pairs)
Maximum capacitance unbalance	99 pF/30 meters @ 1 KHz
Maximum delay skew	13.5ns/30 meters
Nominal velocity of propagation (NVP)	78%
Voltage Rating	300 Volts
Ampacity	Consult Cable Ampacity Chart opposite page.

## Transmission Specifications

ANSI/TIA-568.2-D Category 8 all values are dB/30m

	Ins. Loss	NEXT	PS NEXT	ACR	PSACR	ACRF	PSACRF	TCL	ELTCTL	Return Loss	CA (Type1)
Freq. (MHz)	Max	Min	Min	Cal. Min	Cal. Min	Min	Min	Min	Min	Min	Min
1.0	2.00	75.30	72.30	73.30	70.30	75.00	76.00	40.00	40.00	20.00	ns
4.0	2.00	66.27	63.27	64.27	61.27	66.96	63.96	40.00	27.96	23.01	ns
8.0	2.00	61.75	58.75	59.75	56.75	60.94	57.94	36.45	21.94	24.52	ns
10.0	2.00	60.30	57.30	58.30	55.30	59.00	56.00	35.00	20.00	25.00	ns
16.0	2.20	57.24	54.24	55.04	52.04	54.92	51.92	31.94	15.92	25.00	ns
20.0	2.46	55.78	52.78	53.32	50.32	52.98	49.98	30.48	13.98	25.00	ns
25.0	2.75	54.33	51.33	51.58	48.58	51.04	48.04	29.03	12.04	25.00	ns
31.25	3.08	52.88	49.88	49.80	46.80	49.10	46.10	27.58	10.10	25.00	55.00
62.5	4.37	48.36	45.36	43.99	40.99	43.08	40.08	23.06	5.00	23.64	55.00
100.0	5.56	45.30	42.30	39.74	36.74	39.00	36.00	20.00	5.00	22.21	55.00
200.0	7.94	40.78	37.78	32.84	29.84	32.98	29.98	15.48	5.00	20.11	48.98
300.0	9.81	38.14	35.14	28.34	25.34	29.46	26.46	12.84	5.00	18.87	45.46
400.0	11.40	36.27	33.27	24.87	21.87	26.96	23.96	10.97	5.00	18.00	42.96
500.0	12.83	34.82	31.82	21.99	18.99	25.02	22.02	9.52	5.00	17.32	41.02
600.0	14.13	33.63	30.63	19.50	16.50	23.44	20.44	8.33	5.00	16.77	39.44
700.0	15.34	32.62	29.62	17.28	14.28	22.10	19.10	7.32	5.00	16.30	38.10
800.0	16.48	31.75	28.75	15.28	12.28	20.94	17.94	7.00	5.00	15.89	36.94
900.0	17.55	30.99	27.99	13.43	10.43	19.92	16.92	7.00	5.00	15.53	35.92
1000.0	18.58	30.30	27.30	11.72	8.72	19.00	16.00	7.00	5.00	15.21	35.00
1100.0	19.56	29.68	26.68	10.12	7.12	18.17	15.17	7.00	5.00	14.92	34.17
1200.0	20.51	29.11	26.11	8.60	5.60	17.42	14.42	7.00	5.00	14.66	33.42
1300.0	21.42	28.59	25.59	7.17	4.17	16.72	13.72	7.00	5.00	14.42	32.72
1400.0	22.31	28.11	25.11	5.80	2.80	16.08	13.08	7.00	5.00	14.19	32.08
1500.0	23.17	27.66	24.66	4.49	1.49	15.48	12.48	7.00	5.00	13.98	31.48
1600.0	24.00	27.24	24.24	3.24	0.24	14.92	11.92	7.00	5.00	13.79	30.92
1700.0	24.82	26.84	23.84	2.03		14.39	11.39	7.00	5.00	13.60	30.39
1800.0	25.61	26.47	23.47	0.86		13.89	10.89	7.00	5.00	13.43	29.89
1900.0	26.39	26.12	23.12			13.42	10.42	7.00	5.00	13.26	29.42
2000.0	27.15	25.78	22.78			12.98	9.98	7.00	5.00	13.11	28.98

Not all Characteristics are shown. Refer to ANSI/TIA 568-C-2-1 for complete list of all required Characteristics and their limits. Discrete values are for information only. Equations for swept frequencies govern limits.

Note: Also meets Category 8.2. Refer to ISO/IEC 11801 (IEC 61156-9) for Characteristics and their limits.