

Cat 5e

UTP Category 5e

HITACHI Inspire the Next

Product Highlights

- REACH & RoHS compliant
- Low Smoke CMP construction
- Tested from 1 to 400 MHz
- UL Verified Category 5e

Packaging

- 1,000 foot (305m) reels
- 1,000 foot (305m) ReelEx (featuring reverse sequential numbering)
- 1,000 foot (305m) Reel-in-a-Box

Options

- CMP-50 rated cables available
- Available in a 4-pair construction

Applications

- Including:
 - 1000 BASE-T Gigabit Ethernet
 - 1000 Mbps ATM
 - 622 Mbps ATM
 - 100 BASE-T Ethernet
 - 10 BASE-T
 - Broadband Video
 - POE

Temp Range

- Storage Temperature: -40C to +60C (-40F to +140F)
- Installation Temperature: 0C to +60C (+32F to +140F)
- Operation Temperature: -20C to +50C (-4F to +122F)

Category 5e (Plenum)

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

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

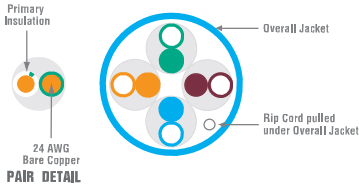
Category 5e (Riser)

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

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

To build a complete part number, visit page 102.

Features



| DIELECTRIC MATERIALS | RISER | PLENUM |
|----------------------|-------------------------------|--|
| Primary Insulation | Polyolefin | Plenum-rated Polypropylene |
| Overall Jacket | Flame-retardant thermoplastic | Low-smoke, flame-retardant thermoplastic |

Hitachi Cable America reserves the right to revise any specifications.

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 |



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 | 35.2 | 35.2 | 32.2 | 32.2 | 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 |

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