

HITACHI Inspire the Next

Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified.
- Low Smoke Plenum construction.
- Guaranteed minimum performance.
- Tested from 1 to 555 MHz.
- No internal pair separator.
- Small outside diameter permits more cables per conduit than typical Category 6 cable.
- Standard Reelex package made with 100% post consumer materials.
- CMR-LSHF version offers a halogen free design for improved environmental performance.
- Supports up to 100 watts of power.

Packaging

- 1,000 foot (305m) reels
- 1,000 foot (305m) Reelex (featuring reverse sequential numbering)

Applications

- Including:
 - 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)

ECO™ (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 |
| 30237-8-XXY | 4 | .20 | 5.08 | 25.24 | 11.45 |

ECO™ (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 |
| 30238-8-XXY | 4 | .21 | 5.48 | 23.12 | 10.5 |

ECO™ (CMR-LSHF)

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 |
| 30309-8-XXY | 4 | .21 | 5.26 | 23.12 | 10.5 |

Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30237 | 8 | XX | Y |

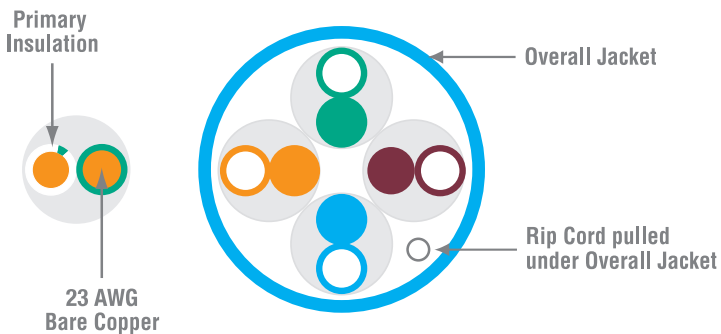
Jacket Colors (XX):

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

Reel Type (Y):

Reelex Boxes(2); Reels(3)

Features



PAIR DETAIL

| DIELECTRIC MATERIALS | RISER | PLENUM | LSHF |
|----------------------|-------------------------------|-------------------------------|--|
| Primary Insulation | Polyolefin | Plenum-rated Fluoropolymer | Polyethylene |
| Overall Jacket | Flame-retardant Thermoplastic | Flame-retardant Thermoplastic | Zero-Halogen Flame-retardant Thermoplastic |

Hitachi Cable America reserves the right to revise any specifications.

UTP

Category 6

Copper

Electrical Characteristics

| | |
|---------------------------------------|--|
| Input Impedance | 100 ± 15Ω (1.0 to 100 MHz) 100 ± 20Ω (101 to 250 MHz) |
| Maximum resistance unbalance | 5% |
| Maximum capacitance unbalance | 330 pF/100 meters |
| Maximum delay skew | 45 ns/100 meters |
| Nominal velocity of propagation (NVP) | riser, 68% plenum, 70% |
| Voltage Rating | 300 Volts |
| Ampacity ¹ | .5 Amps/conductor |



Photo is for representation purposes only.

Transmission Specifications

ANSI/TIA 568-C.2 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 | 74.3 | 72.3 | 72.3 | 72.3 | 72.3 | 70.3 | 70.3 | 67.8 | 67.8 | 64.8 | 64.8 | 20.0 | 20.0 |
| 4 | 3.8 | 3.8 | 65.3 | 65.3 | 63.3 | 63.3 | 61.5 | 61.5 | 59.5 | 59.5 | 55.8 | 55.8 | 52.8 | 52.8 | 23.0 | 23.0 |
| 8 | 5.3 | 5.3 | 60.8 | 60.8 | 58.8 | 58.8 | 55.4 | 55.4 | 53.4 | 53.4 | 49.7 | 49.7 | 46.7 | 46.7 | 24.5 | 24.5 |
| 10 | 6.0 | 6.0 | 59.3 | 59.3 | 57.3 | 57.3 | 53.3 | 53.3 | 51.3 | 51.3 | 47.8 | 47.8 | 44.8 | 44.8 | 25.0 | 25.0 |
| 16 | 7.6 | 7.6 | 56.2 | 56.2 | 54.2 | 54.2 | 48.7 | 48.7 | 46.7 | 46.7 | 43.7 | 43.7 | 40.7 | 40.7 | 25.0 | 25.0 |
| 31.25 | 10.7 | 10.7 | 51.9 | 51.9 | 49.9 | 49.9 | 41.2 | 41.2 | 39.2 | 39.2 | 37.9 | 37.9 | 34.9 | 34.9 | 23.6 | 23.6 |
| 62.5 | 15.4 | 15.4 | 47.4 | 47.4 | 45.4 | 45.4 | 32.0 | 32.0 | 30.0 | 30.0 | 31.9 | 31.9 | 28.9 | 28.9 | 21.5 | 21.5 |
| 100 | 19.8 | 19.8 | 44.3 | 44.3 | 42.3 | 42.3 | 24.5 | 24.5 | 22.5 | 22.5 | 27.8 | 27.8 | 24.8 | 24.8 | 20.1 | 20.1 |
| 200 | 29.0 | 29.0 | 39.8 | 39.8 | 37.8 | 37.8 | 10.8 | 10.8 | 8.8 | 8.8 | 21.8 | 21.8 | 18.8 | 18.8 | 18.0 | 18.0 |
| 250 | 32.8 | 32.8 | 38.3 | 38.3 | 36.3 | 36.3 | 5.5 | 5.5 | 3.5 | 3.5 | 19.8 | 19.8 | 16.8 | 16.8 | 17.3 | 17.3 |
| 300* | - | 36.4 | - | 37.1 | - | 35.1 | - | - | - | - | - | 18.3 | - | 15.3 | - | 16.8 |
| 350* | - | 39.8 | - | 36.1 | - | 34.1 | - | - | - | - | - | 16.9 | - | 13.9 | - | 16.3 |
| 400* | - | 43.0 | - | 35.3 | - | 33.3 | - | - | - | - | - | 15.8 | - | 12.8 | - | 15.9 |
| 500* | - | 48.9 | - | 33.8 | - | 31.8 | - | - | - | - | - | 13.8 | - | 10.8 | - | 15.2 |
| 555* | - | 52.0 | - | 33.1 | - | 31.1 | - | - | - | - | - | 12.9 | - | 9.9 | - | 14.9 |

*Frequencies beyond the TIA and ISO requirements are for information only.

All values are dB/100m.

1. Ampacity rating per NEC 725.144 of NFPA NEC (2017) up to 192 cable bundle.

HITACHI Inspire the Next

Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified.
- Low Smoke Plenum construction.
- Guaranteed minimum performance.
- Tested from 1 to 555 MHz.
- No internal pair separator.
- Small outside diameter permits more cables per conduit than typical Category 6 cable.
- Standard Reelex package made with 100% post consumer materials.
- CMR-LSHF version offers a halogen free design for improved environmental performance.
- Supports up to 100 watts of power.

Packaging

- 1,000 foot (305m) reels
- 1,000 foot (305m) Reelex (featuring reverse sequential numbering)

Applications

- Including:
 - 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)

ECO™ (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 |
| 30237-8-XXY | 4 | .20 | 5.08 | 25.24 | 11.45 |

ECO™ (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 |
| 30238-8-XXY | 4 | .21 | 5.48 | 23.12 | 10.5 |

ECO™ (CMR-LSHF)

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 |
| 30309-8-XXY | 4 | .21 | 5.26 | 23.12 | 10.5 |

Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30237 | 8 | XX | Y |

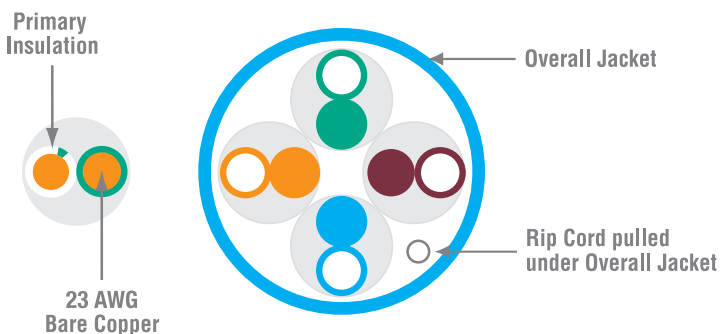
Jacket Colors (XX):

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

Reel Type (Y):

Reelex Boxes(2); Reels(3)

Features



PAIR DETAIL

| DIELECTRIC MATERIALS | RISER | PLENUM | LSHF |
|----------------------|-------------------------------|-------------------------------|--|
| Primary Insulation | Polyolefin | Plenum-rated Fluoropolymer | Polyethylene |
| Overall Jacket | Flame-retardant Thermoplastic | Flame-retardant Thermoplastic | Zero-Halogen Flame-retardant Thermoplastic |

Hitachi Cable America reserves the right to revise any specifications.

UTP

Category 6

Copper

Electrical Characteristics

| | |
|---------------------------------------|--|
| Input Impedance | 100 ± 15Ω (1.0 to 100 MHz) 100 ± 20Ω (101 to 250 MHz) |
| Maximum resistance unbalance | 5% |
| Maximum capacitance unbalance | 330 pF/100 meters |
| Maximum delay skew | 45 ns/100 meters |
| Nominal velocity of propagation (NVP) | riser, 68% plenum, 70% |
| Voltage Rating | 300 Volts |
| Ampacity ¹ | .5 Amps/conductor |



Photo is for representation purposes only.

Transmission Specifications

ANSI/TIA 568-C.2 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 | 74.3 | 72.3 | 72.3 | 72.3 | 72.3 | 70.3 | 70.3 | 67.8 | 67.8 | 64.8 | 64.8 | 20.0 | 20.0 |
| 4 | 3.8 | 3.8 | 65.3 | 65.3 | 63.3 | 63.3 | 61.5 | 61.5 | 59.5 | 59.5 | 55.8 | 55.8 | 52.8 | 52.8 | 23.0 | 23.0 |
| 8 | 5.3 | 5.3 | 60.8 | 60.8 | 58.8 | 58.8 | 55.4 | 55.4 | 53.4 | 53.4 | 49.7 | 49.7 | 46.7 | 46.7 | 24.5 | 24.5 |
| 10 | 6.0 | 6.0 | 59.3 | 59.3 | 57.3 | 57.3 | 53.3 | 53.3 | 51.3 | 51.3 | 47.8 | 47.8 | 44.8 | 44.8 | 25.0 | 25.0 |
| 16 | 7.6 | 7.6 | 56.2 | 56.2 | 54.2 | 54.2 | 48.7 | 48.7 | 46.7 | 46.7 | 43.7 | 43.7 | 40.7 | 40.7 | 25.0 | 25.0 |
| 31.25 | 10.7 | 10.7 | 51.9 | 51.9 | 49.9 | 49.9 | 41.2 | 41.2 | 39.2 | 39.2 | 37.9 | 37.9 | 34.9 | 34.9 | 23.6 | 23.6 |
| 62.5 | 15.4 | 15.4 | 47.4 | 47.4 | 45.4 | 45.4 | 32.0 | 32.0 | 30.0 | 30.0 | 31.9 | 31.9 | 28.9 | 28.9 | 21.5 | 21.5 |
| 100 | 19.8 | 19.8 | 44.3 | 44.3 | 42.3 | 42.3 | 24.5 | 24.5 | 22.5 | 22.5 | 27.8 | 27.8 | 24.8 | 24.8 | 20.1 | 20.1 |
| 200 | 29.0 | 29.0 | 39.8 | 39.8 | 37.8 | 37.8 | 10.8 | 10.8 | 8.8 | 8.8 | 21.8 | 21.8 | 18.8 | 18.8 | 18.0 | 18.0 |
| 250 | 32.8 | 32.8 | 38.3 | 38.3 | 36.3 | 36.3 | 5.5 | 5.5 | 3.5 | 3.5 | 19.8 | 19.8 | 16.8 | 16.8 | 17.3 | 17.3 |
| 300* | - | 36.4 | - | 37.1 | - | 35.1 | - | - | - | - | - | 18.3 | - | 15.3 | - | 16.8 |
| 350* | - | 39.8 | - | 36.1 | - | 34.1 | - | - | - | - | - | 16.9 | - | 13.9 | - | 16.3 |
| 400* | - | 43.0 | - | 35.3 | - | 33.3 | - | - | - | - | - | 15.8 | - | 12.8 | - | 15.9 |
| 500* | - | 48.9 | - | 33.8 | - | 31.8 | - | - | - | - | - | 13.8 | - | 10.8 | - | 15.2 |
| 555* | - | 52.0 | - | 33.1 | - | 31.1 | - | - | - | - | - | 12.9 | - | 9.9 | - | 14.9 |

*Frequencies beyond the TIA and ISO requirements are for information only.

All values are dB/100m.

1. Ampacity rating per NEC 725.144 of NFPA NEC (2017) up to 192 cable bundle.