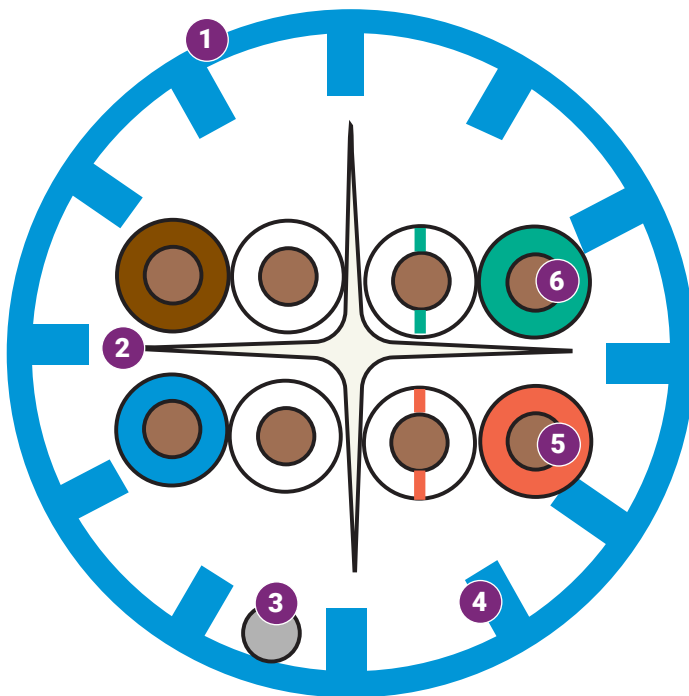


# Category 6A UTP Cable – US

Regional Availability – North America



Siemon's Category 6A UTP cable provides channel performance exceeding TIA and ISO/IEC 6A requirements when used with Z-MAX™ 6A UTP connectivity. Siemon's category 6A UTP cable with cross separator uses a central pair separator for optimal pair-to-pair crosstalk isolation as well as Internal Longitudinal Striation (ILS™) jacket construction to reduce alien crosstalk (AXT) coupling between adjacent cables.



## 1. Jacket

Nominal Cable O.D.:  
CMP – 7.9mm (0.310 in.)  
CMR – 8.3mm (0.326 in.)

Jacket Material:  
CMP – FRPVC  
CMR – FRPVC

## 2. Cross Separator

Maximizes geometric pair isolation.

## 3. Rip Cord

## 4. Internal Longitudinal Striations (ILS)

Maintains centric cable core positioning and ensures proper isolation between adjacent cable.

## 5. Insulation

CMP – FEP  
CMR – HDPE  
MAX DIA = 1.17mm (0.046 in)

## 6. Conductor

23AWG X 4P solid bare copper  
0.56mm (0.022 in.)



## Compliance

- ISO/IEC 11801-1 Ed.1.0
- ANSI/TIA-568.2-D
- UL CMR and CSA FT4
- UL CMP and CSA FT6
- CMP-LP(0.5A) 100W

## Cable Construction

- UTP
- CMP Nominal Cable O.D: 7.9mm (0.31 in.)
- CMR Nominal Cable O.D: 8.3mm (0.326 in.)
- 0.56mm (0.022 in.) (23 AWG) solid bare copper
- Round jacket with Internal Longitudinal Striations (ILS)

## Ethernet Applications Support

- 10GBASE-T
- 1000BASE-T
- 100BASE-T
- 10BASE-T
- IEEE 802.3af (type 1 PoE)
- IEEE 802.3at (type 2 PoE)
- IEEE 802.3bt (type 3 PoE)
- IEEE 802.3bt (type 4 PoE)

## ELECTRICAL SPECIFICATIONS

|                                 |  |
|---------------------------------|--|
| DC RESISTANCE                   | 9.38Ω/100m @ 20°C  |
| DC RESISTANCE UNBALANCE         | 4% @ 20°C  |
| MUTUAL CAPACITANCE              | 5.6 nF/100m  |
| CAPACITANCE UNBALANCE           | 330 pF/100m  |
| CHARACTERISTIC IMPEDANCE (OHMS) | 1 - 100 MHz: 100 ± 15%<br>100 - 200 MHz: 100 ± 22%<br>200 - 500 MHz: 100 ± 32% |
| NVP                             | 67%  |
| TCL                             | 30 -10 log(f/100) dB   |
| PSANEXT                         | 62.5 -15 log(f/100) dB   |
| PSAACRF                         | 38.2 -20 log(f/100) dB   |
| DELAY SKEW                      | ≤45ns/100m   |
| POE                             | Suitable for PoE Type 1, 2, 3, 4   |

## PHYSICAL PROPERTIES

### CMP

### CMR

|                          |                           |                           |
|--------------------------|---------------------------|---------------------------|
| PULLING TENSION (MAX)    | 110 N (25 lbf)            | 110N (25 lbf)             |
| BEND RADIUS (MIN)        | 34mm (1.3 in.)            | 34mm (1.3 in.)            |
| INSTALLATION TEMPERATURE | 0 to 50°C (+32 to 122°F)  | 0 to 50°C (+32 to 122°F)  |
| STORAGE TEMPERATURE      | -20 to 75°C (-4 to 167°F) | -20 to 75°C (-4 to 167°F) |
| OPERATING TEMPERATURE    | -20 to 75°C (-4 to 167°F) | -20 to 75°C (-4 to 167°F) |

## TRANSMISSION PERFORMANCE

Siemon Guaranteed Worst Case

Siemon Typical

| TEST PARAMETER         | FREQUENCY (MHz) |      |      |      |      |       |      |       |       |       |       |       |       |       |        |        |        |
|------------------------|-----------------|------|------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|                        | 1.0             | 4.0  | 10.0 | 16.0 | 20.0 | 31.25 | 62.5 | 100.0 | 160.0 | 200.0 | 250.0 | 300.0 | 400.0 | 500.0 | 550.0* | 625.0* | 750.0* |
| INSERTION LOSS (dB)    | 2.1             | 3.8  | 5.9  | 7.5  | 8.4  | 10.5  | 15.0 | 19.1  | 24.5  | 27.6  | 31.1  | 34.3  | 40.1  | 45.3  | -      | -      | -      |
|                        | 1.8             | 3.6  | 5.7  | 7.3  | 8.1  | 10.2  | 14.6 | 18.6  | 23.7  | 26.5  | 29.9  | 32.9  | 38.4  | 43.3  | 45.7   | 49.4   | 54.1   |
| NEXT (dB)              | 75.3            | 66.3 | 60.3 | 57.2 | 55.8 | 52.9  | 48.4 | 45.3  | 42.2  | 40.8  | 39.3  | 38.1  | 36.3  | 34.8  | -      | -      | -      |
|                        | 96.8            | 90.6 | 79.2 | 75.5 | 65.0 | 68.4  | 65.5 | 63.6  | 57.7  | 59.6  | 51.8  | 56.2  | 45.8  | 50.5  | 52.2   | 45.1   | 26.4   |
| PS NEXT (dB)           | 73.3            | 64.3 | 58.3 | 55.2 | 53.8 | 50.9  | 46.4 | 43.3  | 40.2  | 38.8  | 37.3  | 36.1  | 34.3  | 32.8  | -      | -      | -      |
|                        | 95.2            | 88.0 | 78.7 | 73.2 | 64.6 | 65.8  | 62.5 | 60.6  | 56.6  | 58.1  | 50.8  | 53.1  | 45.4  | 47.5  | 49.1   | 43.6   | 26.3   |
| ACR-F (dB)             | 73.3            | 61.3 | 53.3 | 49.2 | 47.3 | 43.4  | 37.4 | 33.3  | 29.2  | 27.3  | 25.3  | 23.8  | 21.3  | 19.3  | -      | -      | -      |
|                        | 84.7            | 73.0 | 65.3 | 60.9 | 59.0 | 55.3  | 52.7 | 48.1  | 46.1  | 43.4  | 42.0  | 41.3  | 37.6  | 29.3  | 34.3   | 31.7   | 30.1   |
| PS ACR-F (dB)          | 71.3            | 59.3 | 51.3 | 47.2 | 45.3 | 41.4  | 35.4 | 31.3  | 27.2  | 25.3  | 23.3  | 21.8  | 19.3  | 17.3  | -      | -      | -      |
|                        | 82.3            | 70.7 | 63.4 | 59.5 | 57.7 | 54.2  | 50.3 | 45.0  | 43.7  | 46.6  | 39.4  | 39.3  | 35.4  | 28.2  | 31.5   | 28.9   | 29.2   |
| RETURN LOSS (dB)       | 20.0            | 23.0 | 25.0 | 25.0 | 25.0 | 23.7  | 21.5 | 20.1  | 18.7  | 18.0  | 17.3  | 17.3  | 17.3  | 17.3  | -      | -      | -      |
|                        | 28.4            | 30.7 | 34.8 | 37.2 | 36.5 | 37.6  | 36.2 | 34.2  | 32.7  | 32.5  | 28.4  | 27.3  | 28.8  | 23.4  | 22.6   | 22.8   | 21.6   |
| ACR-N (dB)             | 73.2            | 62.5 | 54.4 | 49.8 | 47.4 | 42.4  | 33.4 | 26.2  | 17.7  | 13.2  | 8.3   | 3.9   | -3.8  | -10.4 | -      | -      | -      |
|                        | 95.1            | 87.1 | 73.7 | 68.6 | 56.9 | 58.2  | 51.5 | 45.7  | 34.9  | 33.9  | 22.8  | 24.3  | 8.5   | 8.5   | 7.7    | -4.3   | -26.0  |
| PS ACR-N (dB)          | 71.2            | 60.5 | 52.4 | 47.8 | 45.4 | 40.4  | 31.4 | 24.2  | 15.7  | 11.2  | 6.3   | 1.9   | -5.8  | -12.4 | -      | -      | -      |
|                        | 93.5            | 84.4 | 73.1 | 66.1 | 56.7 | 55.9  | 48.4 | 42.7  | 33.7  | 32.3  | 21.8  | 21.2  | 7.9   | 5.5   | 5.3    | -4.6   | -27.2  |
| PS AACRF (dB)          | 67.0            | 65.3 | 57.1 | 53.1 | 51.1 | 47.2  | 41.1 | 37.0  | 32.9  | 31.0  | 29.1  | 27.5  | 25.0  | 23.0  | -      | -      | -      |
|                        | 93.1            | 92.6 | 90.0 | 89.6 | 82.8 | 80.7  | 77.2 | 73.3  | 70.1  | 65.9  | 61.7  | 58.1  | 52.9  | 47.1  | 43.3   | 39.3   | 39.8   |
| PS ANEXT (dB)          | 80.0            | 74.2 | 70.0 | 68.1 | 67.1 | 65.1  | 62.1 | 60.0  | 57.0  | 55.5  | 54.0  | 52.8  | 51.0  | 49.5  | -      | -      | -      |
|                        | 93.3            | 94.3 | 92.5 | 93.3 | 89.7 | 90.7  | 89.0 | 91.3  | 90.3  | 89.4  | 91.2  | 89.1  | 89.6  | 86.6  | 85.3   | 83.4   | 86.4   |
| PROPAGATION DELAY (ns) | 570             | 552  | 545  | 543  | 542  | 540   | 539  | 538   | 537   | 537   | 536   | 536   | 536   | 536   | -      | -      | -      |
|                        | 533             | 519  | 513  | 511  | 510  | 508   | 507  | 506   | 505   | 505   | 505   | 504   | 504   | 504   | 504    | 504    | 504    |

All performance based on 100 meters (328 ft.). \*Values above 500 MHz are informational only.

# Ordering Information

## 305m (1000 ft.) Reel (North America only)

| Part Number     | Description                   |
|-----------------|-------------------------------|
| 9C6P4-A5-01AR1A | Plenum (CMP, CSA FT6), Black  |
| 9C6P4-A5-02AR1A | Plenum (CMP, CSA FT6), White  |
| 9C6P4-A5-03AR1A | Plenum (CMP, CSA FT6), Red    |
| 9C6P4-A5-04AR1A | Plenum (CMP, CSA FT6), Gray   |
| 9C6P4-A5-05AR1A | Plenum (CMP, CSA FT6), Yellow |
| 9C6P4-A5-06AR1A | Plenum (CMP, CSA FT6), Blue   |
| 9C6P4-A5-07AR1A | Plenum (CMP, CSA FT6), Green  |
| 9C6P4-A5-08AR1A | Plenum (CMP, CSA FT6), Violet |
| 9C6P4-A5-09AR1A | Plenum (CMP, CSA FT6), Orange |
| 9C6R4-A5-01AR1A | Riser (CMR, CSA FT4), Black   |
| 9C6R4-A5-02AR1A | Riser (CMR, CSA FT4), White   |
| 9C6R4-A5-03AR1A | Riser (CMR, CSA FT4), Red     |
| 9C6R4-A5-04AR1A | Riser (CMR, CSA FT4), Gray    |
| 9C6R4-A5-05AR1A | Riser (CMR, CSA FT4), Yellow  |
| 9C6R4-A5-06AR1A | Riser (CMR, CSA FT4), Blue    |
| 9C6R4-A5-07AR1A | Riser (CMR, CSA FT4), Green   |
| 9C6R4-A5-08AR1A | Riser (CMR, CSA FT4), Violet  |
| 9C6R4-A5-09AR1A | Riser (CMR, CSA FT4), Orange  |

Because we continuously improve our products, Siemon reserves the right to change specifications and availability without prior notice.

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