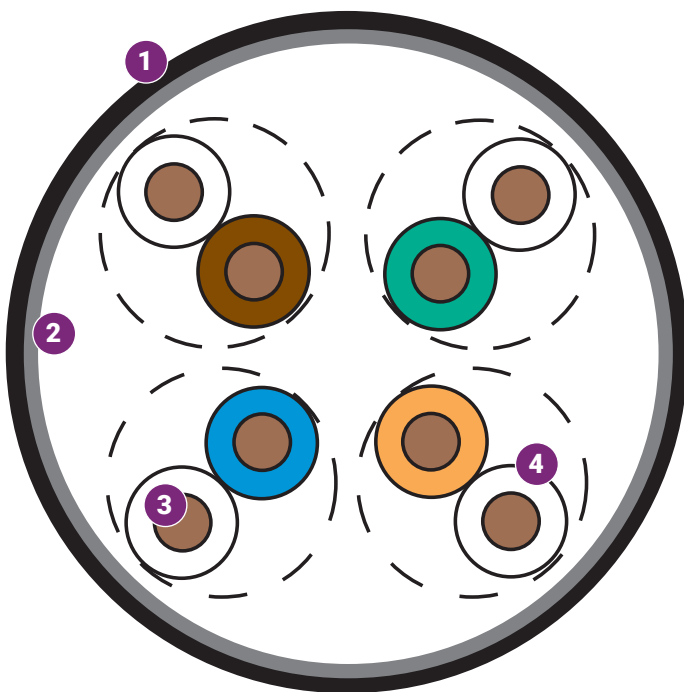


# Category 6A TL UTP Indoor/Outdoor CMP Cable

Regional Availability – North America



Siemon's Category 6A TL UTP Indoor/Outdoor (I/O) cable features one of the smallest diameters in the industry particularly when coupled with a ruggedized outer jacket. This cable allows for optimized cable management and improved conduit-fill ratio for buildings utilizing slab-on-grade construction techniques and transitioning directly into a plenum rated space. The ruggedized jacket offers protection from water, chemicals, and sunlight for select outdoor environments. This I/O cable delivers superior performance meeting or exceeding TIA and ISO/IEC requirements for Category 6A/Class E<sub>A</sub>. Constructed with solid, 23 AWG conductors and Tri-Layer (TL) barrier technology, this cable perfectly supports all levels of Power over Ethernet (PoE Types 1-4) to end devices in both indoor and outdoor locations. This cable does not contain water-blocking gel and while fit for use in slab on-grade conduit is not recommended for direct burial or self-support applications.



## 1. Outer Jacket

Nominal jacket O.D.:  
5.97mm (0.235 in.)

## 2. TL (Tri-Layer) ANEXT Barrier

Maximizes alien crosstalk isolation between cables while minimizing cable diameter.

## 3. Conductor

23 AWG solid bare copper  
0.572mm (0.0225 in.) (nom.)

## 4. Conductor Insulation

1.09mm (0.043 in.) (nom.)



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Plenum indoor/outdoor cables do not contain water blocking gel. They are designed for various applications within the building footprint. Not recommended for underground inter-building connections, direct buried, or self-support applications.

## Cable Features

- TL (Tri-layer Technology) UTP
- Nominal Jacket OD: 5.97mm (0.235 in.)
- 23 AWG 0.57mm (0.022 in.) Solid Bare Copper
- Ruggedized Flame-Retardant Outer Jacket
- Water, UV and Sunlight Resistant
- 90° C Temperature Rating
- Made in USA

## Standards Compliance

- ISO/IEC 11801-1 (Class E<sub>A</sub>)
- ANSI/TIA-568.2-E (Category 6A)
- IEC 61156-5 (Category 6A)
- UL Listed: Plenum CMP-LP (0.8A)
- UL444 CMX Outdoor
- UL444 7.22 Sunlight Resistant 1000 hrs.
- UL444 7.10 Cold Bend -20° C
- RoHS

## 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)
- Power over HDBaseT (PoH)



Data | Power | Reach | Delivered

# Product Information

## ELECTRICAL SPECIFICATIONS

DC RESISTANCE	≤9.38Ω/100m
DC RESISTANCE UNBALANCE	≤5%
MUTUAL CAPACITANCE	≤5.1 nF/100m
CAPACITANCE UNBALANCE	≤330 pF/100m
NVP	67%
TCL	≥50-10 log(f) dB
DELAY SKEW	≤45ns/100m

## PHYSICAL PROPERTIES

PULLING TENSION (MAX)	110 N (25 lbf)
BEND RADIUS (MIN)	36mm (1.4 in.)
INSTALLATION TEMPERATURE	-10 to 50°C (14 to 122°F)
STORAGE TEMPERATURE	-20 to 60°C (-4 to 140°F)
OPERATING TEMPERATURE	-40 to 90°C (-40 to 194°F)

Siemon Guaranteed Worst Case
  Siemon Typical

## TRANSMISSION PERFORMANCE

TEST PARAMETER	FREQUENCY (MHz)															
	1.0	4.0	10.0	16.0	20.0	31.2	62.5	100.0	160.0	200.0	250.0	300.0	400.0	500.0	550.0*	650.0*
INSERTION LOSS (dB)	2.1	3.7	5.9	7.4	8.3	10.5	15.0	19.1	24.5	27.6	31.0	34.3	40.0	45.3	-	-
	2.0	3.7	5.8	7.2	8.1	10.2	14.5	18.5	23.6	26.5	29.7	32.7	38.0	42.7	44.9	49.2
NEXT (dB)	75.3	66.5	60.4	57.4	55.9	52.9	48.4	45.3	42.3	40.8	39.3	38.1	36.3	34.8	-	-
	81.0	80.5	71.1	67.2	67.3	62.8	59.8	56.5	50.6	51.3	49.7	47.9	46.5	43.3	44.3	41.4
PS NEXT (dB)	73.3	64.5	58.4	55.4	53.9	50.9	46.4	43.3	40.3	38.8	37.3	36.1	34.3	32.8	-	-
	77.9	76.5	68.8	67.6	66.2	60.0	59.6	53.7	48.5	49.8	47.8	46.6	44.3	40.2	44.0	41.8
ACR-F (dB)	73.3	61.6	53.4	49.4	47.4	43.5	37.4	33.3	29.2	27.3	25.4	23.8	21.3	19.3	-	-
	76.7	74.8	67.2	63.5	61.8	59.5	49.5	51.4	40.5	36.2	36.3	42.1	34.1	37.8	38.6	29.0
PS ACR-F (dB)	71.3	59.6	51.4	47.4	45.4	41.5	35.4	31.3	27.2	25.3	23.4	21.8	19.3	17.3	-	-
	73.3	72.6	63.8	60.2	58.3	56.4	48.2	48.8	40.2	35.7	35.3	40.7	32.0	35.0	35.0	28.0
RETURN LOSS (dB)	20.0	22.9	25.0	25.0	25.0	23.7	21.5	20.1	18.7	18.0	17.3	16.8	15.9	15.2	-	-
	29.6	33.7	36.4	35.6	35.6	32.3	32.1	30.0	30.9	31.2	32.1	26.9	29.2	23.9	25.0	22.3
ACR-N (dB)	73.3	61.6	53.4	49.4	47.4	43.5	37.4	33.3	29.2	27.3	25.4	23.8	21.3	19.3	-	-
	80.5	75.8	67.8	63.5	61.6	59.5	49.4	51.6	40.8	36.0	36.0	42.7	34.4	37.8	37.9	30.0
PS ACR-N (dB)	71.3	59.6	51.4	47.4	45.4	41.5	35.4	31.3	27.2	25.3	23.4	21.8	19.3	17.3	-	-
	78.7	75.0	68.7	65.0	63.4	61.8	58.0	51.6	49.3	48.1	45.7	45.0	48.5	38.7	39.8	34.6
PROPAGATION DELAY (ns)	570	552	545	543	542	540	539	538	537	537	536	536	536	536	-	-
	556	539	533	531	530	528	527	526	525	525	525	524	524	524	524	524

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

## Ordering Information

Part Number	Description
9U60P4-A5-01R1B	Category 6A TL UTP Indoor/Outdoor CMP Cable, 23AWG, Black, 1000 ft, Reel, Made in USA



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