

# Category 6A TL UTP LSFR0H Cable

Simon's Category 6A TL UTP LSFR0H cable features a tri-layer barrier composed of conductive and non-conductive elements that enables a typical UTP installation process and smaller cable diameter while providing improved heat dissipation and virtually zero alien crosstalk. These properties make this cable ideal for supporting applications using both remote powering and 10 Gb/s application speeds such as IEEE 802.11ac or IEEE 802.11ax wireless access points or other high-speed emerging or converging IP building automation technologies. In addition, this low smoke, zero halogen cable has been formulated to meet higher flame resistance associated with IEC bundled flames tests, EU CPR class B2 and the China B1 standard.

## CABLE CONSTRUCTION

- Tri-layer "TL" UTP LS0H
- 0.574mm (.022 in.) 23 AWG solid bare copper
- 7.5mm (.295 in.) nom. jacket diameter
- Central isolation member
- Mylar Tape
- Tri-layer laminated polyethylene over aluminum applied over core
- Reverse sequential measurement markings on jacket

## COMPLIANCE

- ANSI/TIA-568.2-E
- IEC 61156-5
- ISO/IEC 11801-1
- IEC 60332-1
- IEC 60332-3-24
- IEC 60754
- IEC 61034
- EN50575 B2<sub>ca</sub>, s<sub>1a</sub>, d<sub>1</sub>, a<sub>1</sub>
- GB 31247 B1 (d<sub>1</sub>, t<sub>0</sub>, a<sub>1</sub>)

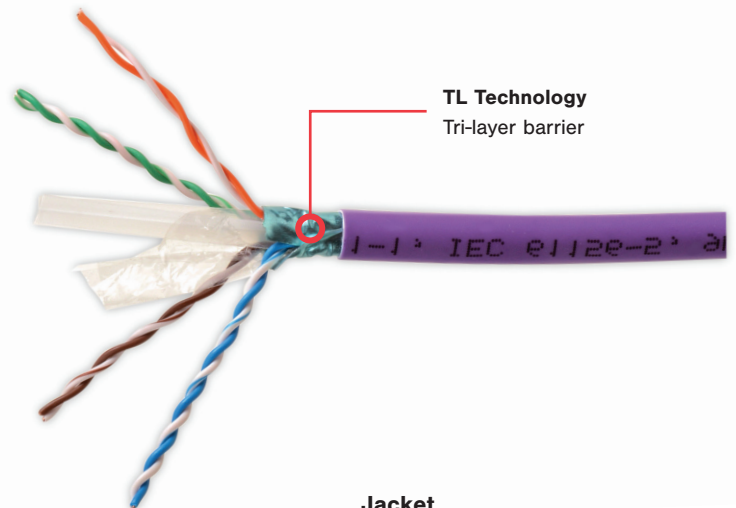
## APPLICATIONS SUPPORT

- 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)

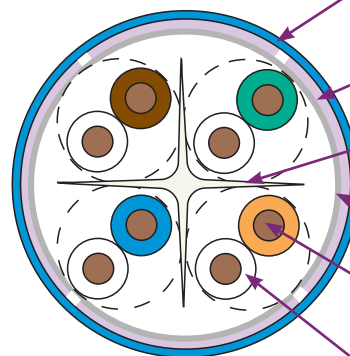
*Supports all applications designed for category 6A or lower cabling*



Data | Power | Reach | Delivered



**TL Technology**  
Tri-layer barrier



### Jacket

- Nominal Cable O.D.: 7.5mm (.295 in.)

### Tri-Layer Barrier

### Isolation Member

- Maintains pair geometry before, during and after installation for optimal NEXT Loss performance

### Mylar Tape

### Conductor

- 0.574mm (0.022 in.) 23 AWG solid bare copper

### Insulation

- Max. O.D.  
Blue, Green = 1.16mm (0.046 in.)  
Orange, Brown = 1.12mm (0.044 in.)
- Polyethylene

# Product Information

## Electrical Specifications

DC Resistance	9.38Ω/100m (@ 20°C)
DC Resistance Unbalance	≤5% (@ 20°C)
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	≤160 pF/100m
NVP	67%
TCL	≥50-10* log(f) dB
Delay Skew	≤45ns

## Physical Properties

Pulling Tension (max)	110N (25 lbf)
Bend Radius (min)	30 mm (1.18 in.)
Installation Temperature	-10°C to 50°C (+14 to 122°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Operating Temperature	-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	-	-	-
	2.0	3.7	5.7	7.3	8.1	10.2	14.6	18.6	23.8	26.7	30.1	33.2	38.9	43.7	47.5	50.8	56.7
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	-	-	-
	96.0	84.3	82.0	75.7	72.6	73.0	63.9	64.3	52.1	51.0	56.1	49.4	50.2	47.9	53.4	45.3	34.1
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	-	-	-
	93.5	83.3	78.8	73.7	71.7	70.9	61.7	61.2	49.3	47.8	53.8	48.1	48.5	45.4	50.6	42.7	33.9
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	-	-	-
	100.4	89.7	83.2	78.9	77.1	71.4	64.9	61.1	55.1	55.4	50.0	51.1	49.9	46.4	40.1	41.3	38.2
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	-	-	-
	97.2	87.3	79.9	74.8	72.5	68.0	61.4	57.9	53.7	53.9	48.4	48.7	47.8	44.3	37.5	39.7	34.9
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	-	-	-
	28.7	29.6	35.0	33.4	31.4	30.2	28.3	34.4	35.1	32.3	30.8	34.9	30.6	25.5	24.8	23.3	19.6
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	-	-	-
	94.1	80.8	76.7	69.0	65.0	63.4	49.7	46.3	29.8	25.1	27.1	17.2	12.4	5.3	7.3	-4.2	-20.6
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	-	-	-
	91.5	79.6	73.5	67.0	63.5	61.3	48.2	42.6	25.6	23.1	23.8	16.9	10.8	2.8	3.1	-6.7	-22.7
Propagation Delay (ns)	570	552	545	543	542	540	539	538	537	537	536	536	536	536	-	-	-
	511	507	503	502	502	501	500	500	499	499	499	499	499	499	499	499	-

\*Values above 500 MHz are for information only.

All performance based on 100 meters (328 ft.).

## Ordering Information

**Part Number**      **Description**  
 9U6B4-A5-08-R1A..... 6A UTP, TL,LSFR0H, violet jacket, 305m (1000 ft.) Reel.

Other colors and put-ups available with longer lead times and MOQ's.  
 Please contact Customer Service for details.



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