

Super 350™ 4 Pair Enhanced Category 5e UTP Cable

Super 350™ Enhanced Category 5e UTP cable is designed to meet or exceed the today's most advanced UTP cable applications. With enough headroom to greatly exceed ANSI/TIA/EIA 568-B.2 and ISO/IEC 11801 specifications, Super 350™ is ideal for installations that require high performance cable solution. Outstanding performance sets Super 350™ far apart from common Category 5e cables and making it ideal for high-end transmission links supporting the today's demanding network protocols.



Standards

- ANSI/TIA/EIA-568-B.2 Category 5e
- ISO/IEC 11801 Category 5e
- Non Plenum – UL 1581, UL 1666, CM, CMR, IEC 332-1, CSA, ETL
- Plenum – UL 910, CMP, CSA, ETL

Applications

Super 350™ Enhanced Category 5e UTP cables are specified to 350MHz and support high speed application including:

- ATM 155 Mbps
- Ethernet 10BASE-T, 100BASE-TX, 100BASE-VG, 100BASE-T4, 1000 Mbps 1000BASE-T Gigabit ETHERNET™ (IEEE 802.3)
- 16Mbps Token Ring™ (IEEE 802.5)

Construction

- Conductor: 24AWG (0.52mm) Solid Annealed Bare Copper
- Insulation: Polyethylene (Non-Plenum) or FEP (Plenum)
- Jacket: Flame Retardant PVC (FR-PVC) or Polymer Alloy

Features & Benefits

- Attenuation, PS-NEXT, ACR and RL are specified and tested to 350MHz – Enhanced bandwidth cable ensures Zero Bit Error Rates and increases network efficiency and uptime
- Guaranteed 6dB PS-NEXT and exceptional PS-ACR performance over TIA/EIA 568-A-5 Category 5e requirements - Performance assurance for multiple high-bandwidth applications (e.g. Fast ETHERNET, ATM, Gigabit ETHERNET)
- Guaranteed 5dB better NEXT than TIA/EIA 568-A-5 Category 5e standards – Greater assurance of exceptional overall channel performance
- Positive identification striping on 100% of conductor length – Easily identifiable conductor mates
- ETL verified to TIA/EIA 568-A-5 and ISO/IEC 11801 – Universally accepted design and approvals for global commercial network installation

❖ Parametric Measurement

Impedance:	100 ± 15 Ω 0.772 – 100 MHz 100 ± 22 Ω 100 – 200MHz 100 ± 32 Ω 200 – 350MHz
Max. Conductor Resistance:	9.38 Ω / 100 Meters @ 20 °C 28.6 Ω / 1,000 FT @ 20 °C
Max. Resistance Unbalance:	5%
Max. Capacitance Unbalance:	330 pF / 100 Meters

Max. Delay Skew:	20 ns / 100 Meters
Nom. Velocity of Prop.:	71% for CM, CMR 73% for CMP
Mutual Capacitance:	5.6 nF / 100 Meters
Temperature Rating:	0 to +60 °C (Installation) -20 °C to +70 °C (Operating)

Category 6E 4Pair Category 6 UTP Cable



Category 6E cable is the most advanced UTP cable today. It supports the highest UTP application and brings UTP performance to a new level. It introduces full duplex operation over four channel pairs with full power sum performance. Guaranteed for 6 dB of margin (headroom) over base requirements of current TIA/EIA proposed Category 6E NEXT standards, this cable maximizes bandwidth for today's leading edge applications and those of the future. Category 6E cable demonstrates superior capability for ATM, Gigabit ETHERNET™, Broadband Video and Wideband™ ETHERNET applications as well.

Standards

- ANSI/TIA/EIA-568 B.2 Category 6
- ISO/IEC 11801-1995, EN 50173
- Non Plenum – UL 1581, UL 1666, CM, CMR, IEC 332-1, CSA, ETL
- RISER , Plenum

Applications

Category 6 UTP cable is intended for future high performance data applications including:

- ATM 155 Mbps
- Ethernet 10BASE-T, 100BASE-TX, 100BASE-VG, 100BASE-T4 (IEEE802.3), 1000 Mbps 1000BASE-T Gigabit ETHERNET™ (IEEE 802.3)
- 16Mbps Token Ring™ (IEEE 802.5)

Construction

- Conductor: 23AWG (0.58mm) Solid Annealed Bare Copper
- Insulation: Polyethylene (Non-Plenum) or FEP (Plenum)
- Filler: Cross-Web type separator
- Jacket: Flame Retardant PVC (FR-PVC) or Polymer Alloy

Features & Benefits

- Attenuation, PS-NEXT, PS-ELFEXT and RL are specified and tested to 550MHz – Enhanced bandwidth cable ensures Zero Bit Error rates and increases network efficiency and uptime
- 60% increase in RL and 300% improvement in PS-NEXT over proposed TIA/EIA Category 6 requirements - Performance assurance for multiple high-bandwidth applications (e.g. Fast ETHERNET, ATM, Gigabit ETHERNET and Broadband Video)
- Flexible cross-web separator – Greater assurance of exceptional full duplex operation and simultaneous bi-directional transmission
- Positive identification striping on 100% of conductor length – Easily identifiable conductor mates
- TIA/EIA Category 6 compliant – Universally accepted design and approvals for global commercial network installation
- Warranted with leading connectivity manufacturers – Offers flexibility in selection of connectivity solutions and trouble-free cabling installation and maintenance

❖ Parametric Measurement

Impedance:	100 ± 15 Ω 0.772 – 100 MHz
	100 ± 22 Ω 100 – 350MHz
	100 ± 32 Ω 350 – 550MHz
Max. Conductor Resistance:	9.38 Ω / 100 Meters @ 20 °C 28.6 Ω / 1,000 FT @ 20 °C
Max. Resistance Unbalance:	5%
Max. Capacitance Unbalance:	330 pF / 100 Meters

Max. Propagation Delay :	5.7 ns / Meter @ 10MHz
Max. Delay Skew:	20 ns / 100 Meters @ 10MHz
Nom. Velocity of Propagation:	70% for CMR 72% for CMP
Mutual Capacitance:	5.6 nF / 100 Meters
Temperature Rating:	0 to 60 °C (Installation) -20 °C to 60 °C (Operating)

Category 6E

4Pair Category 6 UTP Cable (Draft 11)

❖ Physical Data

	CMR	CMP
Conductor Nom. O.D.	.022"	.022"
Nom. Cable Diameter	.236"	.220"
Nominal Weight	27 lbs	25 lbs
Min. Bend Radius	1.3"	1.3"
Max. Tension	27 lbs	27 lbs

❖ Electrical Data

Frequency (MHz)	Attenuation (dB/100m) Max.	RL (dB) Min.	NEXT (dB) Min.	PS-NEXT (dB) Min.	ELFEXT (dB) Min.	PS-ELFEXT (dB) Min.	ACR (dB) Min.	PS-ACR (dB) Min.
.772	1.8	-	79.0	77.0	-	-	76.9	74.9
1	2.0	20.0	77.3	75.3	70.8	67.8	75.0	73.0
4	3.8	23.6	68.3	66.3	58.7	55.7	64.0	62.0
8	5.3	25.4	63.8	61.8	52.7	49.7	57.7	55.7
10	5.9	26.0	62.3	60.3	50.8	47.8	55.6	53.6
16	7.4	26.0	59.3	57.3	46.7	43.7	50.7	48.7
20	8.3	26.0	57.8	55.8	44.7	41.7	48.2	46.2
25	9.3	25.5	56.3	54.3	42.8	39.8	45.6	43.6
31.25	10.4	25.0	54.9	52.9	40.9	37.9	42.8	40.8
62.5	14.9	23.5	50.4	48.4	34.8	31.8	32.9	30.9
100	19.0	22.5	47.3	45.3	30.8	27.8	24.9	22.9
155	23.9	21.6	45.8	43.5	27.0	23.6	21.0	21.5
200	27.4	21.0	42.8	40.8	24.7	21.7	18.4	16.4
250	30.8	20.5	41.3	39.3	22.8	19.8	13.5	11.5
300	34.0	20.1	40.2	38.2	21.2	18.2	9.6	5.0
350	37.0	19.8	39.2	37.2	19.9	16.9	5.2	3.2
400	39.7	19.5	38.3	36.3	18.7	15.7	1.5	-
450	42.1	19.2	37.5	35.5	17.7	14.7	-	-
500	44.9	19.0	36.8	34.8	16.8	13.8	-	-
550	47.3	18.8	36.2	34.2	15.9	12.9	-	-

❖ Color Code

Pair 1 White / Blue	Blue
Pair 2 White / Orange	Orange
Pair 3 White / Green	Green
Pair 4 White / Brown	Brown

❖ Packaging Option

1000 FT	Pull-Out Box
1000 FT	Reel
1000 FT	Reel in a Box

❖ UTP Enhanced Category 6 Part Number

Part Number	Rating**	Jacket	Jacket Color*	Length
61306	CMR	FR-PVC	BLUE	1000 FT (305m)
61310	CMR	FR-PVC	GRAY	1000 FT (305m)
61302	CMR	FR-PVC	WHITE	1000 FT (305m)
20206	CMP	FR-PVC	BLUE	1000 FT (305m)
20210	CMP	FR-PVC	GRAY	1000 FT (305m)
20202	CMP	FR-PVC	WHITE	1000 FT (305m)

* Other jacket colors available.

** Also available in LSZH (Low Smoke Zero Halogen) type

Super 350™ 4 Pair Enhanced Category 5e UTP Cable

❖ Physical Data

	CM	CMR	CMP
Conductor Nom. O.D.	.0208"	.0208"	.0208"
Nom. Cable Diameter	.197"	.197"	.192"
Nominal Weight	23 lbs	23 lbs	21 lbs
Min. Bend Radius	1.0"	1.0"	1.0"
Max. Tension	25 lbs	25 lbs	25 lbs

❖ Electrical Data

Frequency (MHz)	Attenuation (dB/100m)		RL (dB)		NEXT (dB)		PS-NEXT (dB)		ELFEXT (dB)		PS-ELFEXT (dB)		ACR (dB)		PS-ACR (dB)	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
.772	1.8	1.5	23.0	33.0	72.0	81.1	70.0	78.7	66.0	73.3	63.0	72.7	70.2	79.2	68.2	77.0
1	2.0	1.8	23.0	38.6	70.3	79.4	68.3	76.9	63.8	71.3	60.8	70.6	68.2	77.6	66.3	75.0
4	4.1	3.6	23.0	39.8	61.2	69.9	59.3	67.4	51.7	59.4	48.7	58.7	57.2	66.3	55.2	63.5
8	5.8	5.1	24.5	38.2	56.8	61.9	54.8	59.4	45.7	53.2	42.7	51.1	51.0	59.8	49.0	56.9
10	6.5	5.8	25.0	38.0	55.3	62.4	53.5	59.9	43.8	50.5	40.8	49.7	48.8	56.6	47.0	53.7
16	8.2	7.4	25.0	37.4	52.3	57.8	50.3	55.2	39.7	47.0	36.7	45.1	43.0	53.0	42.1	47.4
20	9.3	8.2	25.0	36.8	50.8	56.4	48.8	53.8	37.7	45.0	34.7	43.6	41.5	50.5	39.5	45.0
25	10.4	9.3	24.3	35.2	49.3	56.3	47.3	53.6	35.8	43.3	32.8	42.0	38.9	47.0	36.9	43.7
31.25	11.7	10.5	23.6	33.3	47.9	53.8	45.9	51.1	33.9	41.3	30.9	40.5	36.5	43.3	34.2	40.0
62.5	17.0	14.9	21.5	32.2	43.4	49.8	41.4	47.4	27.8	35.8	24.8	34.5	26.4	35.0	24.4	31.2
100	22.0	19.2	20.1	31.3	40.3	47.5	38.3	45.0	23.8	31.3	20.8	30.3	18.3	26.2	16.3	24.2
155	28.1	24.2	18.8	29.8	37.4	45.1	35.4	42.6	19.9	27.5	16.9	26.9	10.0	20.9	7.3	15.9
200	32.4	27.3	18.0	28.5	35.7	43.3	33.7	40.8	17.7	24.7	14.7	24.5	5.0	16.0	2.0	10.0
250	38.9	30.9	17.5	27.3	34.8	41.4	32.5	39.0	17.1	22.2	14.0	22.5	0	10.6	-	4.0
300	41.0	34.1	16.8	25.6	33.1	40.2	31.1	37.7	16.7	20.5	13.5	20.7	-	6.1	-	-1.3
350	44.9	37.8	16.3	23.2	32.1	39.0	30.1	36.5	16.0	19.4	12.8	19.6	-	1.2	-	-6.4

❖ Color Code

Pair 1 White / Blue	Blue
Pair 2 White / Orange	Orange
Pair 3 White / Green	Green
Pair 4 White / Brown	Brown

❖ Packaging Option

1000 FT	Pull-Out Box
1000 FT	Reel
1000 FT	Reel in a Box

❖ UTP Enhanced Category 5e Part Number

Part Number	Rating**	Jacket	Jacket Color*	Length
L44306	CM	FR-PVC	BLUE	1000 FT (305m)
L44310	CM	FR-PVC	GRAY	1000 FT (305m)
L44303	CM	FR-PVC	WHITE	1000 FT (305m)
L44506	CMR	FR-PVC	BLUE	1000 FT (305m)
L44510	CMR	FR-PVC	GRAY	1000 FT (305m)
L44503	CMR	FR-PVC	WHITE	1000 FT (305m)
L44706	CMP	Polymer Alloy	BLUE	1000 FT (305m)
L44710	CMP	Polymer Alloy	GRAY	1000 FT (305m)
L44703	CMP	Polymer Alloy	WHITE	1000 FT (305m)

* Other jacket colors available.

** Also available in LSZH (Low Smoke Zero Halogen) type