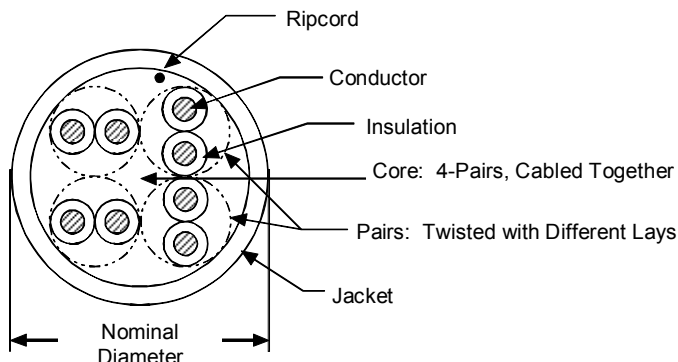


# Category 5e UTP Cable, 200MHz

219513-X, 219538-X



## Description

AMP NETCONNECT Enhanced Category 5 (Cat5e) cables exceed TIA/EIA-568-B.2 Enhanced Category 5 (Category 5e) and ISO/IEC 11801 Class D performance requirements, providing extra headroom for a more robust cabling system. The AMP NETCONNECT Enhanced Category 5 System complies with all of the performance requirements for current and proposed applications such as Gigabit Ethernet (1000BASE-Tx), 10 and 100BASE-Tx, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog and digital video, and analog and digital voice (VoIP).

AMP NETCONNECT Category 5e cables are available in plenum and non-plenum, and in standard colors white, gray, blue and yellow. Packaging includes reel-in-a-box, pull boxes and wooden reels. Additional jacket colors are also available.

## Specification (text in brackets [ ] requires a choice)

Horizontal cabling shall be 24 AWG, 4-pair UTP, NEC/NFPA [CMP or CMR] rated and be independently verified for compliance. Cable jacketing shall be [white, gray, blue or yellow] and shall be lead-free. [Individual conductors shall be 100% FEP insulated (if plenum).] Cable shall be independently verified by ETL and shall exceed all TIA/EIA and ISO Enhanced Category 5/Class D requirements as well as meet the performance requirements listed in the following table: [include Performance Characteristics tables from page 2]

Cable performance shall be independently verified and characterized to 350MHz. Cable shall be supplied [on wooden reels, in pull boxes or in a reel-in-a-box]. Cable shall be independently verified for flammability by UL and listed under file number E138034. Flammability shall comply to NEC article 800 and NFPA 70; [CMP ( NFPA 262, UL 910) or CMR (ANSI/UL 1666, IEC 332-1)]. Horizontal cable shall be AMP NETCONNECT part number [219513-X or 219538-X].

## Part Numbers

Description	Packaging	Part Numbers			
		White	Gray	Blue	Yellow
Category 5e UTP Cable, 200MHz, 4-Pair, Riser (CMR) Rated	WR	219538-1	219538-3	219538-5	219538-7
	RB	219538-2	219538-4	219538-6	219538-8
	PB	6-219538-2	6-219538-4	6-219538-6	6-219538-8
Category 5e UTP Cable, 200MHz, 4-Pair, Plenum (CMP) Rated	WR	219513-1	219513-3	219513-5	219513-7
	RB	219513-2	219513-4	219513-6	219513-8
	PB	6-219513-2	6-219513-4	6-219513-6	6-219513-8

Packaging: WR = 1000ft Wooden Reel, RB = 1000ft Reel-in-a-Box, PB = 1000ft Pull Box

# Category 5e UTP Cable, 200MHz

219513-X, 219538-X

## Performance Characteristics (meet or exceed TIA/EIA-568-B.2 Category 5e and ISO/IEC 11801)

Frequency MHz	Insertion Loss dB/100m		NEXT dB			PSNEXT dB			ELFEXT dB		
	Cat5e Standard	Maximum	Cat5e Standard	Minimum	Typical	Cat5e Standard	Minimum	Typical	Cat5e Standard	Minimum	Typical
.772	1.8	1.8	67.0	69	76	64.0	66	70	–	–	–
1	2.0	2.0	65.3	67	74	62.3	64	68	63.8	64	69
4	4.1	4.1	56.3	58	65	53.3	55	59	51.8	52	57
8	5.8	5.8	51.8	54	61	48.8	51	55	45.7	46	51
10	6.5	6.5	50.3	52	59	47.3	49	53	43.8	44	49
16	8.2	8.2	47.2	49	56	44.2	46	50	39.7	40	45
20	9.3	9.3	45.8	48	55	42.8	45	49	37.8	38	43
25	10.4	10.4	44.3	46	53	41.3	43	47	35.8	36	41
31.25	11.7	11.7	42.9	45	52	39.9	42	46	33.9	34	39
62.5	17.0	17.0	38.4	40	47	35.4	37	41	27.9	28	33
100	22.0	22.0	35.3	37	44	32.3	34	38	23.8	24	29
155	28.1	28.1	32.4	34	41	29.4	31	35	20.0	20	25
200	32.4	32.4	30.8	33	40	27.8	30	34	17.8	18	23

## Performance Characteristics (continued)

Frequency MHz	PSELFEXT dB			Return Loss dB			ACR dB			PS ACR dB		
	Cat5e Standard	Minimum	Typical	Cat5e Standard	Minimum	Typical	Cat5e Standard	Minimum	Typical	Cat5e Standard	Minimum	Typical
.772	–	–	–	–	–	–	65.2	67.2	74.2	62.2	64.1	68.4
1	60.8	61	66	20.0	20.0	26.0	63.3	65.3	72.3	60.3	62.2	66.2
4	48.8	49	54	23.1	23.0	29.0	52.2	54.2	61.2	49.2	51.1	55.3
8	42.7	43	48	24.5	24.5	30.5	46.0	48.0	55.0	43.0	44.9	49.8
10	40.8	41	46	25.0	25.0	31.0	43.8	45.8	52.8	40.8	42.7	47.2
16	36.7	37	42	25.0	25.0	31.0	39.0	41.0	48.0	36.0	37.8	42.6
20	34.8	35	40	25.0	25.0	31.0	36.5	38.5	45.5	33.5	35.3	40.6
25	32.8	33	38	24.3	24.3	30.3	33.9	35.9	42.9	30.9	32.7	37.6
31.25	30.9	31	36	23.6	23.6	29.6	31.2	33.2	40.2	28.2	30.0	35.5
62.5	24.9	25	30	21.5	21.5	27.5	21.4	23.4	30.4	18.4	20.1	25.7
100	20.8	21	26	20.1	20.1	26.1	13.3	15.3	22.3	10.3	11.9	18.2
155	17.0	17	22	18.8	18.8	24.8	4.4	6.4	13.4	1.4	2.0	9.7
200	14.8	15	20	18.0	18.0	24.0	–	0.4	7.4	–	–	4.8

# Category 5e UTP Cable, 200MHz

219513-X, 219538-X

## Technical Details

	CMR	CMP	
<b>Mutual Capacitance</b>	5.6nF/100m nominal	5.6nF/100m nominal	
<b>Characteristic Impedance</b>	100 $\Omega$ $\pm$ 15%, 1 - 200MHz	100 $\Omega$ $\pm$ 15%, 1 - 200MHz	
<b>Conductor DC Resistance</b>	9.38 $\Omega$ /100m maximum	9.38 $\Omega$ /100m maximum	
<b>Voltage</b>	300VAC or VDC	300VAC or VDC	
<b>Delay Skew</b>	25ns/100m maximum	25ns/100m maximum	
<b>Propagation Delay</b>	538ns/100m maximum @ 100MHz	538ns/100m maximum @ 100MHz	
<b>Nominal Velocity of Propagation</b>	70%	74%	
<b>Operating Temperature</b>	-20° C – 60° C (-4° F – 140° F)	-20° C – 60° C (-4° F – 140° F)	
<b>Storage Temperature</b>	-20° C – 80° C (-4° F – 176° F)	-20° C – 80° C (-4° F – 176° F)	
<b>Bend Radius</b>	(4 × cable diameter) $\approx$ 1"	(4 × cable diameter) $\approx$ 1"	
<b>Packaging:</b>	1000ft ( $\pm$ 2%) Wooden Reel	24lbs/mft	22lbs/mft
	1000ft ( $\pm$ 2%) Reel-in-a-Box	24lbs/mft	22lbs/mft
	1000ft ( $\pm$ 2%) Pull Box	24lbs/mft	22lbs/mft
<b>Materials:</b>	Conductors –	24 AWG, Solid Copper, ( $\emptyset$ .0201 nominal)	24 AWG, Solid Copper, ( $\emptyset$ .0201 nominal)
	Insulation –	0.006in ( $\emptyset$ .032 nominal), Polyethylene	0.006in ( $\emptyset$ .032 nominal), FEP (fluoropolymer)
	Jacket –	0.025in nominal ( $\emptyset$ .205 nominal), PVC	0.015in nominal ( $\emptyset$ .195 nominal), FEP (fluoropolymer)

**Safety –**  
**UL LISTED** (file number: E138034)  
for safety to:  
CMR – (UL 1666, IEC 332-1)  
CMP – (NFPA 262, UL 910)



### Approvals:

**Performance –**  
**ETL Verified to:**  
TIA/EIA-568-B.2



Specifications subject to change without notice.

Revised - 1/30/2006

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