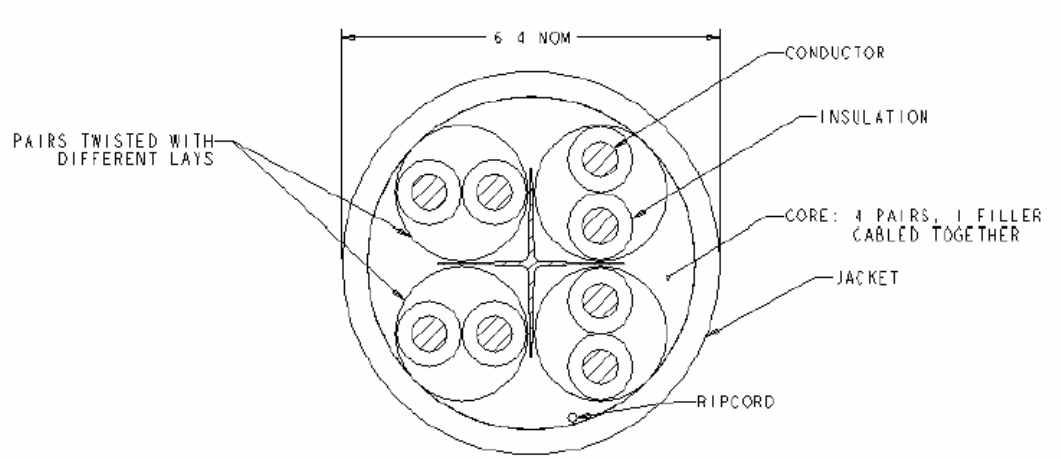
Category 6 UTP Cable Cut Sheet

X-1427200-X



Description

AMP NETCONNECT Category 6 cables exceed TIA/EIA-568-B.2-1 Category 6 and ISO/IEC 11801 Class E performance requirements by significant margins on all parameters. The AMP NETCONNECT Category 6 System complies with all of the performance requirements for current and proposed applications such as Gigabit Ethernet (1000BASE-TX), 10/100BASE-TX, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog and digital video and analog and digital voice (VoIP).

AMP NETCONNECT Category 6 UTP cables are available in CMR, with standard colors including white, gray, and blue. Packaging is in a reel-in-box, with standard put-ups being 1000ft splice-free lengths.

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

Horizontal cabling shall be 23 AWG, 4-pair UTP, UL NEC/NFPA CMR rated and be independently verified for compliance. Cable jacketing shall be **[white, gray or blue]** PVC. Cable shall exceed all TIA/EIA and ISO Category 6/Class E 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 600 MHz. Cable shall be supplied in a reel-in-box. Independent verification for flammability compliance shall be to NEC article 800 and NFPA 70; CMR (ANSI/UL 1666, IEC 332-1). Horizontal cable shall be AMP NETCONNECT part number X-1427200-X.

Part Numbers

Description	Packaging	Part Numbers		
		White	Gray	Blue
Category 6 UTP Cable, 4-Pair, Riser (CMR) Rated	RB	6-1427200-2	6-1427200-4	6-1427200-6

Package: RB = Reel-in-Box (1000 ft.)

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Performance Characteristics (meet or exceed TIA/EIA-568-B.2-1 Category 6 requirements)

Frequency (MHz)	IL (Attenuation) dB/100m			NEXT (dB)			PSNEXT (dB)			RL (dB)		
	Standard	Maximum	Typical	Standard	Minimum	Typical	Standard	Minimum	Typical	Standard	Minimum	Typical
0.772	1.8	1.8	1.5	76.0	79.0	82.0	74.0	77.0	79.0	19.4	-	-
1	2.0	2.0	1.7	74.3	77.0	80.0	72.3	75.0	77.0	20.0	20.0	28.0
4	3.8	3.7	3.5	65.3	68.0	71.0	63.3	66.0	68.0	23.0	23.0	31.0
8	5.3	5.3	5.0	60.8	64.0	67.0	58.8	62.0	64.0	24.5	24.5	32.5
10	6.0	5.9	5.7	59.3	62.0	65.0	57.3	60.0	62.0	25.0	25.0	33.0
16	7.6	7.5	7.3	56.2	59.0	62.0	54.2	57.0	59.0	25.0	25.0	33.0
20	8.5	8.4	8.1	54.8	58.0	61.0	52.8	56.0	58.0	25.0	25.0	33.0
25	9.5	9.5	9.2	53.3	56.0	59.0	51.3	54.0	56.0	24.3	24.3	32.3
31.25	10.7	10.6	10.4	51.9	55.0	58.0	49.9	53.0	55.0	23.6	23.6	31.6
62.5	15.4	15.3	15.1	47.4	50.0	53.0	45.4	48.0	50.0	21.5	21.5	29.5
100	19.8	19.8	19.5	44.3	47.0	50.0	42.3	45.0	47.0	20.1	20.1	28.1
155	25.2	25.1	24.9	41.4	44.0	47.0	39.4	42.0	44.0	18.8	18.8	26.8
200	29.0	28.9	28.7	39.8	43.0	46.0	37.8	41.0	43.0	18.0	18.0	26.0
250	32.8	32.8	32.5	38.3	41.0	44.0	36.3	39.0	41.0	17.3	17.3	25.3
300	36.4	36.4	36.1	37.1	40.0	43.0	35.1	38.0	40.0	16.8	16.8	24.8
350	39.8	39.7	39.5	36.1	39.0	42.0	34.1	37.0	39.0	16.3	16.3	24.3
400	43.0	42.9	42.7	35.3	38.0	41.0	33.3	36.0	38.0	15.9	15.9	23.9
450	46.0	46.0	45.7	34.5	38.0	41.0	32.5	36.0	38.0	15.5	15.5	23.5
500	48.9	48.9	48.6	33.8	37.0	40.0	31.8	35.0	37.0	15.2	15.2	23.2
550	51.8	51.7	51.5	33.2	36.0	39.0	31.2	34.0	36.0	14.9	14.9	22.9
600	54.5	54.4	54.2	32.6	36.0	39.0	30.6	34.0	36.0	14.7	14.7	22.7

Performance Characteristics (meet or exceed TIA/EIA-568-B.2-1 Category 6 requirements)

Frequency (MHz)	ELFEXT (dB)			PSELFEXT (dB)			ACR (dB)			PSACR (dB)		
	Standard	Minimum	Typical	Standard	Minimum	Typical	Standard	Minimum	Typical	Standard	Minimum	Typical
0.772	70.0	70.0	73.0	67.0	67.0	69.0	74.2	77.2	80.5	72.2	75.2	77.5
1	67.8	67.8	71.0	64.8	65.0	67.0	72.3	75.0	78.3	70.3	73.0	75.3
4	55.8	55.7	59.0	52.8	53.0	55.0	61.5	64.3	67.5	59.5	62.3	64.5
8	49.7	49.7	53.0	46.7	47.0	49.0	55.4	58.7	62.0	53.4	56.7	59.0
10	47.8	47.8	51.0	44.8	45.0	47.0	53.3	56.1	59.3	51.3	54.1	56.3
16	43.7	43.7	47.0	40.7	41.0	43.0	48.7	51.5	54.7	46.7	49.5	51.7
20	41.8	41.7	45.0	38.8	39.0	41.0	46.3	49.6	52.9	44.3	47.6	49.9
25	39.8	39.8	43.0	36.8	37.0	39.0	43.8	46.5	49.8	41.8	44.5	46.8
31.25	37.9	37.9	41.0	34.9	35.0	37.0	41.2	44.4	47.6	39.2	42.4	44.6
62.5	31.9	31.8	35.0	28.9	29.0	31.0	32.0	34.7	37.9	30.0	32.7	34.9
100	27.8	27.8	31.0	24.8	25.0	27.0	24.5	27.2	30.5	22.5	25.2	27.5
155	24.0	23.9	27.0	21.0	21.0	23.0	16.3	18.9	22.1	14.3	16.9	19.1
200	21.8	21.7	25.0	18.8	19.0	21.0	10.8	14.1	17.3	8.8	12.1	14.3
250	19.8	19.8	23.0	16.8	17.0	19.0	5.5	8.2	11.5	3.5	6.2	8.5
300	18.3	18.2	21.0	15.3	15.0	17.0	0.7	3.6	6.9	-1.3	1.6	3.9
350	16.9	16.9	20.0	13.9	14.0	16.0	-3.6	-0.7	2.5	-5.6	-2.7	-0.5
400	15.8	15.7	19.0	12.8	13.0	15.0	-7.7	-4.9	-1.7	-9.7	-6.9	-4.7
450	14.7	14.7	18.0	11.7	12.0	14.0	-11.5	-8.0	-4.7	-13.5	-10.0	-7.7
500	13.8	13.8	17.0	10.8	11.0	13.0	-15.1	-11.9	-8.6	-17.1	-13.9	-11.6
550	13.0	12.9	16.0	10.0	10.0	12.0	-18.6	-15.7	-12.5	-20.6	-17.7	-15.5
600	12.2	12.2	15.0	9.2	9.0	11.0	-21.9	-18.4	-15.2	-23.9	-20.4	-18.2

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X-1427200-X

Technical Details

		CMR
Mutual Capacitance		5.6nF/100m nominal
Characteristic Impedance		100Ω ±15%, 1 - 600MHz
Conductor DC Resistance		66.58Ω/km maximum
Voltage		300VAC or VDC
Delay Skew		45ns maximum
Propagation Delay		536ns/100m @ 250MHz
Nominal Velocity of Propagation		70%
Operating Temperature		-20° C – 60° C (-4° F – 140° F)
Storage Temperature		-20° C – 80° C (-4° F – 176° F)
Bend Radius		(4 × cable diameter) ≈ 1”
Packaging:	1000ft Reel-in-a-Box	26 lbs/kft
Materials:	Conductors –	23 AWG, Solid Copper, (Ø.0226 nominal)
	Insulation –	0.0097in (Ø.042 nominal), Polyethylene
	Jacket –	0.025in nominal (Ø.230 nominal), PVC
Approvals:	Safety –	**UL LISTED** for safety to: CMR – (UL 1666, IEC 332-1) UL File no. E138034
	Performance –	**ETL Verified** to: TIA/EIA-568-B.2-1 “Performance Specifications for 4-Pair 100 Ohm Category 6 Cabling”

Specifications subject to change without notice.

Revised - 10/10/2005

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