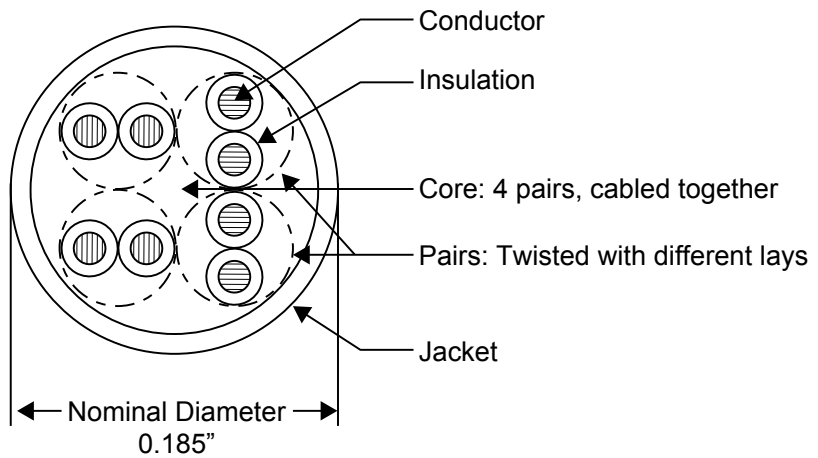


# 520 Series CMR Cat 5e UTP Cable

TE520R



## Description

TE Connectivity 520 Series Enhanced Category 5e (Cat5E) cables exceed ANSI/TIA-568-C.2 Enhanced Category 5 (Category 5e) and ISO/IEC 11801 Class D performance requirements by significant margins, providing extra headroom for a more robust cabling system. The TE Enhanced Category 5e 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).

520 Series Category 5E cables are available in standard colors white, gray, blue and yellow. Packaging includes reel-in-a-box, pull boxes and reels. Additional jacket colors are also available.

## Specification

Horizontal cabling shall be 24 AWG, 4-pair UTP, NEC/NFPA CMR rated and be independently verified for compliance. Cable jacketing shall be white, gray, blue or yellow and shall be lead-free. Cable shall be independently verified by ETL and shall exceed all ANSI/TIA and ISO Enhanced Category 5/Class D requirements as well as meet the performance requirements listed in the table shown on page 2.

Cable performance shall be independently verified and characterized to 350 MHz. Cable shall be supplied on reels, in pull boxes or in a reel-in-a-box. Cable shall be independently verified for flammability by UL. Flammability shall comply to NEC article 800 and ANSI/UL 1666. Horizontal cable shall be TE catalog part number TE520R-XXXY.

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## PERFORMANCE DATA

FREQ MHZ	FITTED IMPEDANCE Ohms	INSERTION LOSS dB/100 m		RETURN LOSS dB/100 m		PAIR-PAIR NEXT dB/100 m		PSNEXT dB/100 m	
	Spec	Max	Spec	Min	Spec	Min	Spec	Min	Spec
1	100+/-5	1.9	2.0	33.1	20.0	79.8	65.3	78.1	62.3
4	100+/-3	3.7	4.1	30.1	22.9	72.4	56.3	67.9	53.3
8	100+/-3	5.3	5.8	32.7	24.5	64.4	51.8	63.5	48.8
10	100+/-3	6.0	6.5	31.4	25.0	63.7	50.3	62.4	47.3
16	100+/-3	7.6	8.2	37.0	25.0	61.4	47.2	59.7	44.2
20	100+/-3	8.6	9.3	37.5	25.0	59.7	45.8	58.0	42.8
25	100+/-3	9.6	10.4	35.1	24.3	58.7	44.3	56.9	41.3
31.25	100+/-3	10.8	11.7	34.4	23.6	58.7	42.9	54.9	39.9
62.5	100+/-3	15.5	17.0	33.2	21.5	52.4	38.4	50.3	35.4
100	100+/-3	19.8	22.0	29.8	20.1	49.3	35.3	47.2	32.3
155	100+/-3	25.1	-	29.3	-	51.3	-	47.9	-
200	100+/-3	28.9	-	22.9	-	47.5	-	45.5	-
250	100+/-3	32.5	-	25.0	-	42.6	-	41.1	-
300	100+/-3	35.9	-	22.5	-	43.6	-	41.1	-
350	100+/-3	39.3	-	22.4	-	41.1	-	39.6	-

## PERFORMANCE DATA

FREQ MHZ	PAIR-PAIR ACR dB/100 m		PSACR dB/100 m		PAIR-PAIR ACRF dB/100 m		PSACRF dB/100 m	
	Min	Spec	Min	Spec	Min	Spec	Min	Spec
1	78.0	63.3	76.4	60.3	70.2	63.8	70.0	60.8
4	68.7	52.0	64.3	49.2	58.9	51.8	58.7	48.8
8	59.1	46.0	58.2	43.0	52.8	45.7	52.5	42.7
10	57.9	43.8	56.4	40.8	51.1	43.8	50.8	40.8
16	54.0	39.0	52.2	36.0	47.4	39.7	47.1	36.7
20	51.2	36.5	49.5	33.5	45.0	37.8	44.9	34.8
25	49.2	33.9	47.5	30.9	43.0	35.8	42.6	32.8
31.25	48.2	31.2	44.3	28.2	41.4	33.9	41.1	30.9
62.5	37.0	32.4	34.9	18.4	35.2	27.9	35.2	24.9
100	29.9	13.3	27.9	10.3	32.0	23.8	31.7	20.8
155	26.7	-	23.6	-	28.7	-	28.6	-
200	19.6	-	16.9	-	27.4	-	27.3	-
250	10.9	-	9.4	-	25.8	-	25.4	-
300	8.6	-	6.1	-	24.4	-	23.8	-
350	2.5	-	0.8	-	22.8	-	22.1	-

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## SPECIFICATIONS

<b>Mutual Capacitance:</b>	5.6 nF/100 m maximum
<b>Conductor DC Resistance:</b>	28.6 $\Omega$ /1000' (9.38 $\Omega$ /100 m)
<b>Voltage:</b>	300 VDC
<b>Delay Skew:</b>	25 ns/100 m maximum
<b>Propagation Delay:</b>	538 ns/100 m maximum @ 100 MHz
<b>Nominal Velocity of Propagation:</b>	70%
<b>Operating Temperature:</b>	-20° C - 60° C (-4° F - 140° F)
<b>Storage Temperature:</b>	-20° C - 80° C (-4° F - 176° F)
<b>Installation Temperature:</b>	5° C - 50° C (41°F - 122° F)
<b>Bend Radius:</b>	4 × cable diameter
<b>Packaging:</b>	1000' (± 2%) Reel: 29 lbs/mft 1000' (± 2%) Reel-in-a-Box: 32 lbs/mft 1000' (± 2%) Pull Box: 29 lbs/mft
<b>Materials:</b>	Conductors: 24 AWG, Solid Copper, (Ø.0201 nominal) Insulation: 0.038 nominal, Polyethylene Jacket: 0.185 nominal, PVC
<b>Compliances:</b>	UL Subject 444 (UL)-C(UL) Type CMR ICEA S-90-661 ETL Verified TIA-568-C.2 Category 5e Horizontal Cable Requirements ISO/IEC 11801 Category 5e Horizontal Cable Requirements 2002/95/EC RoHS



## ORDERING INFORMATION

Product Description	Packaging	Part Number
Category 5E UTP Cable, 350MHz, 4-Pair, Riser (CMR) Rated	1000' Reel-in-box	TE520R-XXRB
	1000' Pull-box	TE520R-XXII
	1000' Reel	TE520R-XXO2
	1000' Side-by-side	TE520RX2-XXO2

\*Additional reel sizes available, please contact TE customer service.

The following jacket colors are available. Replace XX with:

BL= Blue      WT=White      GY=Gray      YL=Yellow      GN=Green  
BK=Black      RD=Red      OR=Orange      VT=Violet      BN=Brown

## DATA SHEET



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