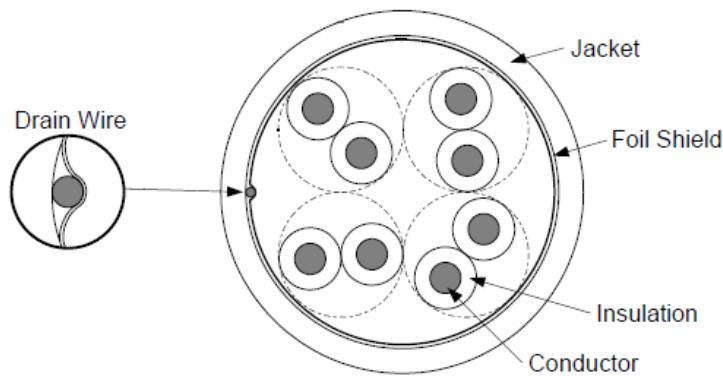


# 520 Series CMR Cat 5e F/UTP Cable Cut Sheet

## TE520RF



### Description

TE Connectivity's 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 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).

TE Category 5E cables are available in standard colors white, gray, blue and yellow. Packaging is on reels. Additional jacket colors are also available.

### Specification

Horizontal cabling shall be 24 AWG, 4-pair F/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 exceed all ANSI/TIA and ISO Enhanced Category 5/Class D requirements as listed in the table shown on page 2.

Cable performance shall be characterized to 100MHz. Cable shall be supplied on reels. 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 number TE520R-XXYY.

### ORDERING INFORMATION

Product Description	Packaging	Catalog Numbers			
		Blue	White	Gray	Yellow
Category 5E F/UTP Cable, 100MHz, 4-Pair, Riser (CMR) Rated	1000 ft Reel	TE520RF-BL02	TE520RF-WT02	TE520RF-GY02	TE520RF-YL02

Packaging: RL = 1000ft Reel



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## PERFORMANCE DATA

FREQ MHZ	FITTED IMPEDANCE Ohms	INSERTION LOSS dB/100m		RETURN LOSS dB/100m		PAIR-PAIR NEXT dB/100m		PSNEXT dB/100m	
	Spec	Max	Spec	Min	Spec	Min	Spec	Min	Spec
1	100 +/- 15	1.9	2.0	32.2	20.0	73.5	65.3	73.3	62.3
4	100 +/- 15	3.6	4.1	31.9	23.0	65.2	56.3	64.2	53.3
8	100 +/- 15	5.1	5.8	30.3	24.5	59.0	51.8	57.3	48.8
10	100 +/- 15	5.7	6.5	34.8	25.0	58.7	50.3	55.9	47.3
16	100 +/- 15	7.2	8.2	31.7	25.0	55.6	47.2	53.2	44.2
20	100 +/- 15	8.1	9.3	33.1	25.0	54.2	45.8	50.8	42.8
31.25	100 +/- 15	10.2	11.7	30.2	23.6	52.0	42.9	50.0	39.9
62.5	100 +/- 15	14.5	17.0	26.7	21.5	44.8	38.4	42.3	35.4
100	100 +/- 15	18.5	22.0	25.9	20.1	42.2	35.3	41.3	32.3

## PERFORMANCE DATA

FREQ MHZ	PAIR-PAIR ACR dB/100m		PSACR dB/100m		PAIR-PAIR ACRF dB/100m		PSACRF dB/100m	
	Min	Spec	Min	Spec	Min	Spec	Min	Spec
1	78.0	63.3	76.4	60.3	76.2	63.8	75.0	60.8
4	68.7	52.2	64.3	49.2	65.1	51.8	64.0	48.8
8	59.1	46.0	58.2	43.0	60.3	45.7	59.5	42.7
10	57.9	43.8	56.4	40.8	58.8	43.8	56.9	40.8
16	54.0	39.0	52.2	36.0	56.1	39.7	54.0	36.7
20	51.2	36.5	49.5	33.5	54.8	37.8	53.3	34.8
25	49.2	33.9	47.5	30.9	52.7	35.8	50.9	32.8
31.25	48.2	31.2	44.3	28.2	50.5	33.9	48.2	30.9
62.5	37.0	21.4	34.9	18.4	43.0	27.9	41.9	24.9
100	29.9	13.3	27.9	10.3	40.6	23.8	39.2	20.8

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## SPECIFICATIONS

<b>Mutual Capacitance:</b>	5.6 nF/100 m maximum
<b>Conductor DC Resistance:</b>	28.6 $\Omega$ /1000 ft (9.38 $\Omega$ /100 m)
<b>Voltage:</b>	300 VDC
<b>Delay Skew:</b>	4 5ns/100m maximum
<b>Propagation Delay:</b>	538ns/100m maximum @ 100MHz
<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 x cable diameter (installed) 8 x cable diameter (during installation)
<b>Packaging:</b>	1000ft ( $\pm$ 2%) Reel: 34 lbs/mft
<b>Materials:</b>	Conductors: 24 AWG, Solid Copper, (0.0208" nominal) Insulation: 0.040" nominal, Polyethylene Shielding: Aluminum/Polyester foil, overall Drain Wire: 24 AWG tinned copper Jacket: 0.0250" nominal, PVC
<b>Compliances:</b>	UL Subject 444 (UL)-C(UL) Type CMR ICEA S-90-661 TIA-568-C.2 Category 5e Horizontal Cable Requirements ISO/IEC 11801 Category 5e Horizontal Cable Requirements 2002/95/EC RoHS



## DATA SHEET



**Contact us:**  
Greensboro, NC  
USA 27409-8420  
Tel: 1-800-553-0938  
Fax: 1-717-986-7406

[www.te.com/EnterpriseNetworks](http://www.te.com/EnterpriseNetworks)

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