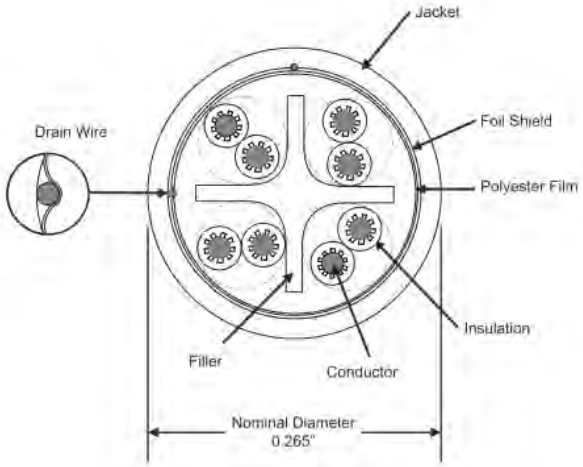
640 Series CMP Cat 6a F/UTP Cable

TE640PF



Description

TE Connectivity's 640 Series Category 6a F/UTP plenum cables feature the best in class AirES® technology. This patented design saves as much as 32% of the available space in cable runs and is a key component of the TE structured cabling system. The smaller diameter also saves space in the communications closet, reduces the amount of cable management accessories required and lowers the risk associated with fire and smoke in the plenum space.

640 Series Category 6a F/UTP cables meet or exceed specifications of ANSI/TIA-568-C Category 6a and ISO/IEC 11801:2002/Amd 1:2008 Class EA up to 500 MHz when used as a component in a properly installed AMP NETCONNECT XG F/UTP channel. The Category 6a F/UTP 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, analog and digital voice (VoIP), and exceeds all requirements for IEEE 802.3an 10 Gigabit Ethernet on all parameters.

640 Series Category 6a F/UTP cables are packaged on reels. Standard jacket colors are white, gray, blue and yellow.

Specification

Horizontal cabling shall be 23 AWG, 4-pair F/UTP, NEC/NFPA CMP rated and shall be independently tested for compliance. Cable jacketing shall be white, gray, blue or yellow. Cable shall meet all the requirements of ANSI/TIA-568-C.2 as well as the performance requirements listed in the table shown on page 2.

Cable shall be independently tested for performance to the following specifications:

1. ANSI/TIA-568-C.2
2. ISO/IEC 11801:2002/Amd 1:2008
3. IEEE 802.3an

Independent verification for flammability compliance shall be to NEC article 800 and NFPA 70; CMP NFPA 262. Cable shall be supplied on reels. Horizontal cable shall be TE catalog number TE640PF.

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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	1.8	2.1	23.8	20.0	87.2	74.3	85.7	72.3
4	100+/-3	3.5	3.8	31.5	22.9	76.1	65.3	73.7	63.3
8	100+/-3	5.0	5.3	32.0	24.5	68.1	60.8	67.7	58.8
10	100+/-3	5.6	5.9	34.0	25.0	67.4	59.3	66.7	57.3
16	100+/-3	7.1	7.5	31.3	25.0	67.8	56.2	66.8	54.2
20	100+/-3	8.0	8.4	28.9	25.0	63.2	54.8	62.2	52.8
25	100+/-3	9.0	9.4	31.9	24.3	58.6	53.3	58.6	51.3
31.25	100+/-3	10.1	10.5	30.7	23.6	63.8	51.9	60.9	49.9
62.5	100+/-3	14.4	15.0	28.8	21.5	57.5	47.4	56.6	45.4
100	100+/-3	18.8	19.1	27.6	20.1	57.2	44.3	53.3	42.3
155	100+/-3	23.1	24.1	26.8	18.8	52.9	41.4	51.9	39.4
200	100+/-3	26.5	27.6	25.4	18.0	50.8	39.8	50.6	37.8
250	100+/-3	29.7	31.1	21.3	17.3	51.1	38.3	50.2	36.3
300	100+/-3	32.7	34.3	21.7	16.8	50.2	37.1	48.6	35.1
350	100+/-3	35.4	37.2	20.5	16.3	44.4	36.1	43.4	34.1
400	100+/-3	38.0	40.1	19.1	15.9	43.6	35.3	41.5	33.3
450	100+/-3	40.5	42.7	16.6	15.5	46.4	34.5	45.5	32.5
500	100+/-3	42.8	45.3	17.7	15.2	47.0	33.8	43.9	31.8
550	100+/-3	44.9	–	17.5	–	46.0	–	43.5	–
600	100+/-3	47.0	–	17.1	–	43.2	–	40.9	–

FREQ MHZ	ACR				ACRF				TCL	ELTCTL
	PAIR-PAIR dB/100 m		PSACR dB/100 m		PAIR-PAIR dB/100 m		PSACR m		dB/100 m	dB/100 m
	Min	Spec	Min	Spec	Min	Spec	Min	Spec	Min	Min
1	85.4	73.2	83.9	70.2	84.7	67.8	82.9	64.8	40.0	35.0
4	72.6	62.5	70.2	59.5	73.4	55.8	71.3	52.8	40.0	23.0
8	63.4	56.4	63.0	53.4	67.9	49.7	66.1	46.7	40.0	16.9
10	62.1	54.4	61.4	51.4	66.4	47.8	65.4	44.8	40.0	15.0
16	61.	49.8	59.9	46.8	61.9	43.7	61.7	40.7	38.0	10.9
20	55.6	47.4	54.4	44.4	59.9	41.8	59.8	38.8	37.0	9.0
25	50.0	45.0	49.8	42.0	58.5	39.8	57.9	36.8	36.0	7.0
31.25	54.1	42.4	51.4	39.4	56.5	37.9	55.6	34.9	35.1	–
62.5	43.4	33.4	42.5	30.4	50.8	31.9	48.9	28.9	32.0	–
100	39.1	26.2	36.5	23.2	46.8	27.8	44.2	24.8	30.0	–
155	30.3	18.4	29.4	15.4	41.6	24.0	40.1	21.0	28.1	–
200	25.5	13.2	25.3	10.2	39.6	21.8	36.8	18.8	27.0	–
250	22.0	8.3	21.1	5.3	41.6	19.8	39.2	16.8	26.0	–
300	18.9	3.9	17.3	0.9	34.9	18.3	33.2	15.3	25.2	–
350	10.4	-0.1	9.4	-3.1	35.4	16.9	33.2	13.9	24.6	–
400	6.9	-3.8	6.3	-6.8	33.6	15.8	32.3	12.8	24.0	–
450	6.7	-7.2	5.8	-10.2	31.7	14.7	31.2	11.7	23.5	–
500	5.7	-10.4	2.6	-13.4	33.3	13.8	30.7	10.8	23.0	–
550	3.3	–	0.1	–	31.9	–	31.0	–	–	–
600	-3.0	–	-5.3	–	29.3	–	28.2	–	–	–

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SPECIFICATIONS

Mutual Capacitance:		5.6 nF/100 m maximum
Conductor DC Resistance:		28.6 Ω/1000′ (9.38 Ω/100 m)
Voltage:		300 VDC
Delay Skew:		45ns/100 m maximum
Propagation Delay:		538ns/100 m maximum @ 100 MHz
Nominal Velocity of Propagation:		72%
Operating Temperature:		-20° C – 60° C (-4° F – 140° F)
Storage Temperature:		-20° C – 80° C (-4° F – 176° F)
Installation Temperature:		5° C - 50° C (41° F - 122° F)
Bend Radius:		4 × cable diameter
Packaging:	1000′ Reel:	42 lbs/mft
Materials:	Conductors:	23 AWG, Solid Copper, (Ø.0224 nominal)
	Insulation:	FEP 0.042 nominal
	Jacket:	LS FR PVC, 0.265" nominal
	Filler:	FEP
Compliances:		UL Subject 444
		(UL)-C(UL) Type CMP
		ICEA S-90-661
		TIA-568-C.2 Category 6a Horizontal Cable Requirements
		ISO/IEC 11801 Category 6a Horizontal Cable Requirements
		2002/95/EC RoHS

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ORDERING INFORMATION

Description	Packaging	Part Number
Category 6a F/UTP Cable, 4-Pair CMP	1000′ Reel	TE640PF-XX02

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

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

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