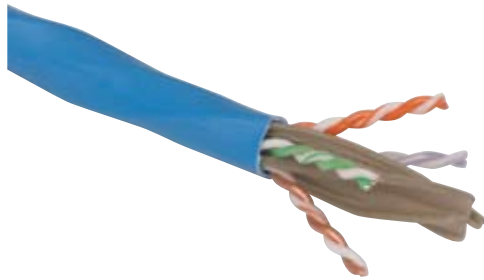


TrueNet®

CopperTen® Four-Pair Plenum Cable



An integral part of ADC's TrueNet® Structured Cabling System, CopperTen® is the world's first UTP structured cabling system to enable 10 Gigabit Ethernet over a full 100 meters. Installed in high-performance networks worldwide, the system's patent-pending design minimizes alien crosstalk and insertion loss and meets the performance requirements of IEEE 802.3an, ISO 11801 Class EA and TIA/EIA-568-B.2-10 standards.

CopperTen cable features the patented AirES® technology, which implements air as a conductor insulator. The use of air improves signal strengths and transmission speed, allowing the conductor and insulation diameter to be dramatically reduced. In turn, this maximizes tray, conduit and duct space permitting more cables to be placed in a smaller space.

Features:

- Patented oblique elliptical offset filler minimizes alien crosstalk
- Manufactured with lead-free materials
- Utilizes AirES technology

Compliances:

- UL Subject 444
- (UL)-C(UL) Type CMP
- ICEA S-90-661
- NEC 800 Type CMP
- TIA/EIA 568-B.2-10 standard
- ISO/IEC 11801 Class EA Ed. 2.1 horizontal cable requirements

SPEC SHEET



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Specifications

CONSTRUCTION CHARACTERISTICS

Conductor:	23 AWG solid bare copper
Insulation:	All 4 pairs 100% FEP
Separator:	Fluoropolymer
Jacket:	Non-lead, flame retardant PVC
Nominal Outer Diameter:	.275" (7.0 mm) – .300" x .245" (7.6 mm x 6.2 mm)

MECHANICAL CHARACTERISTICS

Bend Radius	
During Installation:	8 x outer diameter
Installed:	4 x outer diameter
Pull Tension:	110 N (25#)

ELECTRICAL CHARACTERISTICS

Conductor DC Resistance @ 20 °C (68 °F) (Max):	9.38 Ω /100 m (28.6 Ω /1000 ft)
DC Resistance Unbalance (Max):	2%
Mutual Capacitance @ 20 °C (68 °F) (Max):	5.6 nF/100 m (17 pF/ft)
Operating Voltage (Max):	300 VDC
Worst Case Cable Skew:	40 ns/100 m (40 ns/328 ft)
Nominal Velocity of Propagation:	69%

Environmental CHARACTERISTICS

Transport and Storage:	-20° to 75 °C (-4° to 167 °F)
Installation:	4° to 50 °C (39° to 122 °F)
Operation:	-20° to 75 °C (-4° to 167 °F)

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Specifications

FREQ (MHz)	FITTED IMPEDANCE Ohms	INSERTION LOSS dB/100m		RETURN LOSS dB/100m		PAIR-PAIR Next dB/100m		PSNEXT dB/100m	
	SPEC	Max	TIA Spec	Min	TIA Spec	Min	TIA Spec	Min	TIA Spec
1	100 +/- 5	1.8	2.0	26.7	20.0	86.3	74.3	83.7	72.3
4	100 +/- 3	3.5	3.7	30.9	23.0	76.3	65.3	74.3	63.3
8	100 +/- 3	5.0	5.2	34.2	24.5	68.3	60.8	67.4	58.8
10	100 +/- 3	5.6	5.9	35.7	25.0	65.2	59.3	64.1	57.3
16	100 +/- 3	7.2	7.4	32.9	25.0	65.8	56.2	63.5	54.2
20	100 +/- 3	8.1	8.3	32.6	25.0	61.3	54.8	60.6	52.8
25	100 +/- 3	9.1	9.3	30.7	24.3	62.6	53.3	60.7	51.3
31.25	100 +/- 3	10.2	10.4	33.8	23.6	60.6	51.9	59.9	49.9
62.5	100 +/- 3	14.6	14.9	34.9	21.5	58.1	47.4	56.5	45.4
100	100 +/- 3	18.7	19.0	34.5	20.1	56.9	44.3	56.5	42.3
155	100 +/- 3	23.5	24.0	32.8	18.8	49.1	41.4	48.3	39.4
200	100 +/- 3	26.9	27.5	30.1	18.0	51.7	39.8	49.2	37.8
250	100 +/- 3	30.2	31.0	29.3	17.3	47.9	38.3	45.1	36.3
300	100 +/- 3	33.3	34.2	28.8	16.8	44.6	37.1	43.6	35.1
350	100 +/- 3	36.1	37.2	26.3	16.3	46.3	36.1	45.3	34.1
400	100 +/- 3	38.8	40.0	27.0	15.9	42.2	35.3	41.9	33.3
450	100 +/- 3	41.3	42.7	24.5	15.5	42.6	34.5	42.3	32.5
500	100 +/- 3	43.7	45.3	25.4	15.2	40.6	33.8	40.4	31.8
550	100 +/- 3	46.1	-	20.5	-	40.0	-	39.5	-
600	100 +/- 3	48.2	-	24.6	-	30.2	-	30.1	-
625	100 +/- 3	49.3	-	23.8	-	30.5	-	30.4	-

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FREQ (MHz)	PAIR-PAIR ACR dB/100m		PSACR dB/100		PAIR-PAIR ELFEXT dB/100m		PSELPEXT dB/100m		LCL dB/100m
	Min	Spec	Min	Spec	Min	Spec	Min	Spec	Min
1	84.6	72.3	81.9	70.3	74.8	67.8	73.5	64.8	40.0
4	72.8	61.5	70.8	59.5	63.0	55.8	61.7	52.8	40.0
8	63.4	55.5	62.4	53.5	57.4	49.7	55.9	46.7	40.0
10	59.6	53.4	58.5	51.4	55.4	47.8	54.0	44.8	40.0
16	58.8	48.8	56.3	46.8	52.2	43.7	50.6	40.7	38.0
20	53.4	46.5	52.7	44.5	50.8	41.8	49.0	38.8	37.0
25	53.8	44.0	51.9	42.0	49.5	39.8	47.4	36.8	36.0
31.25	50.7	41.5	49.9	39.5	48.5	37.9	45.8	34.9	35.1
62.5	43.7	32.5	41.9	30.5	43.1	31.9	41.6	28.9	32.0
100	38.8	25.3	38.0	23.3	34.9	27.8	34.3	24.8	30.0
155	26.1	17.5	24.9	15.5	28.4	24.0	28.2	21.0	28.1
200	25.4	12.3	23.0	10.3	31.7	21.8	29.8	18.8	27.0
250	18.5	7.4	15.6	5.4	28.8	19.8	26.1	16.8	26.0
300	11.8	3.0	10.4	1.0	28.0	18.3	26.9	15.3	
350	11.0	-1.0	9.3	-3.0	22.6	16.9	21.6	13.9	
400	4.3	-4.7	3.4	-6.7	23.4	15.8	22.2	12.8	
450	2.2	-8.2	1.3	-10.2	25.4	14.7	23.4	11.7	
500	-2.0	-11.4	-2.7	-13.4	21.8	13.8	21.1	10.8	
550	-4.8	-	-5.7	-	19.9	-	18.5	-	
600	-16.8	-	-17.7	-	21.9	-	20.0	-	
625	-17.7	-	-18.5	-	19.7	-	18.8	-	

Ordering Information

Description	Catalog Number*
4-pair plenum data cable	
1000' reel	10G-A6TP-XX02

Additional packaging options are available, please contact ADC Technical Assistance Center.

*To order jacket color, replace XX with:

BL = Blue WT = White
GY = Gray GN = Green
YL = Yellow RD = Red



Website: www.adc.com

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Fax: +1-952-917-3237 • For a listing of ADC's global sales office locations, please refer to our website.

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