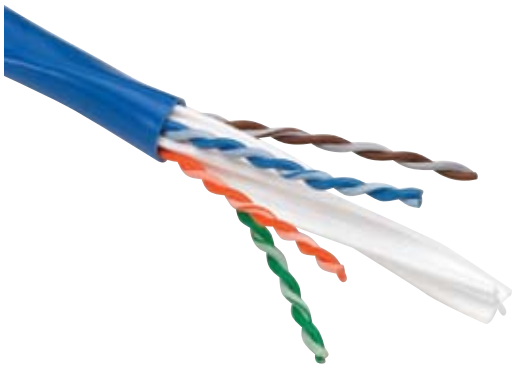
TrueNet®

CopperTen® Four-Pair Riser 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.

Features:

- Patent-pending oblique elliptical offset filler minimizes alien crosstalk
- Manufactured with lead-free materials

Compliances:

- UL Subject 444
- (UL)-C(UL) Type CMR/CMG
- ICEA S-90-661
- NEC 800 Type CMR
- TIA/EIA 568-B.2-10 standard
- ISO/IEC 11801 CLASS EA Category 6a horizontal cable requirements

SPEC SHEET

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Specifications

CONSTRUCTION CHARACTERISTICS	
Conductor:	23 AWG solid bare copper
Insulation:	100% Polyolefin
Separator:	Flame retardant polyolefin
Jacket:	Non-lead, flame retardant PVC
Nominal Outer Diameter:	7.5 mm (.295") – 6.6 mm x 8.3 mm (.260" x .325")
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:	65%
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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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	1.7	2.0	26.5	20.0	88.4	74.3	87.2	72.3
4	100 ± 3	3.4	3.7	31.1	23.0	82.8	65.3	80.0	63.3
8	100 ± 3	4.9	5.2	37.2	24.5	73.5	60.8	72.1	58.8
10	100 ± 3	5.5	5.9	30.3	25.0	73.9	59.3	71.7	57.3
16	100 ± 3	7.0	7.4	32.0	25.0	67.5	56.2	66.4	54.2
20	100 ± 3	7.8	8.3	35.2	25.0	70.0	54.8	68.5	52.8
25	100 ± 3	8.8	9.3	35.4	24.3	68.1	53.3	67.7	51.3
31.25	100 ± 3	9.9	10.4	38.9	23.6	67.4	51.9	64.7	49.9
62.5	100 ± 3	14.1	14.9	33.6	21.5	60.3	47.4	59.6	45.4
100	100 ± 3	18.0	19.0	28.1	20.1	59.2	44.3	57.8	42.3
155	100 ± 3	22.6	24.0	28.4	18.8	50.6	41.4	50.0	39.4
200	100 ± 3	25.8	27.5	27.3	18.0	52.5	39.8	51.4	37.8
250	100 ± 3	29.0	31.0	27.2	17.3	50.9	38.3	49.8	36.3
300	100 ± 3	31.8	34.2	25.0	16.8	46.9	37.1	46.4	35.1
350	100 ± 3	34.5	37.2	23.5	16.3	43.8	36.1	43.3	34.1
400	100 ± 3	37.0	40.0	24.5	15.9	47.2	35.3	44.7	33.3
450	100 ± 3	39.4	42.7	22.9	15.5	45.9	34.5	42.8	32.5
500	100 ± 3	41.6	45.3	21.3	15.2	48.2	33.8	47.0	31.8
550	100 ± 3	43.8		21.4		46.2		44.6	
600	100 ± 3	45.9		21.2		44.2		43.0	

NOTE: The above listed discrete frequency electrical performance values are provided for engineering information only. Actual compliance testing is based on swept frequency measurements. The spec values are based on TIA/EIA 568-B.2-10 specifications.

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FREQ (MHz)	Pair-Pair ACR (dB/100m)		PSACR (dB/100m)		Pair-Pair ELFEXT (dB/100m)		PSELFEXT (dB/100m)	
	Min	TIA Spec	Min	TIA Spec	Min	TIA Spec	Min	TIA Spec
1	86.6	72.3	85.4	70.3	78.2	67.8	77.6	64.8
4	74.9	61.5	73.5	59.5	66.4	55.8	65.7	52.8
8	68.7	55.5	66.7	53.5	60.2	49.7	59.7	46.7
10	68.6	53.4	66.4	51.4	58.4	47.8	57.7	44.8
16	60.7	48.8	59.7	46.8	53.6	43.7	53.3	40.7
20	59.7	46.5	58.7	44.5	51.8	41.8	50.9	38.8
25	58.9	44.0	56.4	42.0	50.0	39.8	49.1	36.8
31.25	57.9	41.5	55.2	39.5	48.0	37.9	47.2	34.9
62.5	45.9	32.5	44.7	30.5	43.6	31.9	42.9	28.9
100	40.3	25.3	38.5	23.3	39.9	27.8	38.9	24.8
155	27.6	17.5	27.3	15.5	35.5	24.0	33.2	21.0
200	24.6	12.3	24.4	10.3	32.5	21.8	31.0	18.8
250	19.2	7.4	18.4	5.4	29.1	19.8	28.4	16.8
300	15.9	3.0	15.4	1.0	27.3	18.3	26.5	15.3
350	10.2	-1.0	9.7	-3.0	27.5	16.9	26.4	13.9
400	3.5	-4.7	2.8	-6.7	27.0	15.8	26.8	12.8
450	0.5	-8.2	0.0	-10.2	26.3	14.7	25.8	11.7
500	1.0	-11.4	-0.3	-13.4	23.4	13.8	22.7	10.8
550					23.6		22.9	
600					21.7		20.8	

NOTE: The above listed discrete frequency electrical performance values are provided for engineering information only. Actual compliance testing is based on swept frequency measurements. The spec values are based on TIA/EIA 568-B.2-10 specifications.

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Ordering Information

Description	Catalog Number*
4-pair riser data cable	
1000' reel	10G-A6TR-*XX*02

Additional packaging options are available,
please contact ADC Technical Assistance Center.
* To order jacket color, replace *XX* with:
BL = Blue, GN = Green, WT = White, YL = Yellow, GY = Gray, RD = Red

Website: www.adc.com

From North America, Call Toll Free: 1-800-366-3891 • Outside of North America: +1-952-938-8080

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

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