

DESCRIPTION

- 23 AWG 4 Pair U/UTP 10G Category 6A cable tested to ANSI/TIA 568-C.2 for 10Gbps @500Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in Wood Reel for easier installation.

FEATURES AND BENEFITS

- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330ft)
- Improved cable temperature rating (90°C Plenum) for greater protection against increased operating temperatures and for high-wattage applications
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

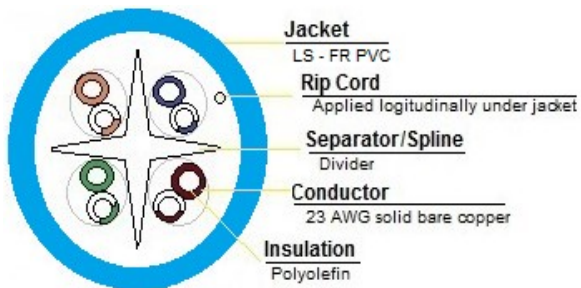
APPLICATIONS

- IEEE 802.3 10G Base-T, 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
- ANSI/TIA 854: 1000Base-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

STANDARD COMPLIANCES

- ANSI/TIA 568-C.2
- ANSI/TIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class EI)
- ICEA 8-102-700 (Category 6 or 5E)
- REACH Compliant
- CPR Compliant (Fully Comply to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG

Toll Free: (866) 945-5051
Local: (770) 945-5051
Fax: (770) 945-9582
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PHYSICAL PROPERTIES

Conductor	Material	Bare copper
	Nominal Outside Diameter (mm)	4x2x0.58 (±0.005)
Insulation	Material	FEP
	Diameter (± 0.05mm)	1.05±0.03
Filler		Low Smoke
Construction		Unshielded/Plenum
Jacket	Material	LS-FR PVC
	Average Thickness (mm)	0.85
	Minimum Point Thickness (mm)	0.7
	Outside Diameter (±0.2mm)	8.2
Rip Cord:		Yes
Drain Wire:		No
Packing	Length	1000ft ± 4ft
	Weight	42 lbs/Reel
Voltage Rating (Max)		DC 300V
Flame Test Method		CMP



ELECTRICAL CHARACTERISTICS

1.0 - 250.0MHz characteristic impedance (ohms)		100Ω±15Ω
250-650.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (Pf/100m)		≤330
Max. Conductor DC Resistance Unbalance (%)		9.38/100m
Max. Resistance Unbalance (%)		≤5
Max Mutual Capacitance		5.6nf/100m
Max DC Loop Resistance		19.25 I/100m
Min DC Insulation Resistance		150 ms2/km
Max Propagation Delay Skew		≤40
Before Aging	Tensile Strength (Mpa)	≥13.8
	Elongation (%)	≥75
After Aging	Tensile Strength (Mpa)	≤50
	Elongation (%)	≥75
Aging Period (°C x hrs)		100°C x 24h x 7d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-20°C ~ +75°C
Velocity of Propagation (%) NVP		70%



1000' Wood Reel
Weight: 42 lbs.

AVAILABLE CATEGORY 6 (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
6ACMR234Rx	6ACMP234Rx	6ASHDCMRRx	6ASHDCMPRx	6AOUTG234RB	6AOUTGSHDRB

*All values in this specification are nominal and are subject to tolerances of +/- 10 to 15%.
It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice*



ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

PSELFEXT - Power Sum Equal Level Far End Crosstalk (dB/100m)

RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT (dB/100m)	RL (dB)	ACR (dB)	Next (dB)	PSNEXT (dB)	TCL (dB/100m)	PHASE DELAY	ELFEXT (dB/100m)	PSELFEXT dB/100m)
1	2.1	20.0	72.2	75.3	72.3	40.0	570.0	68.0	65.0
4	3.8	23.0	61.5	66.3	63.3	40.0	552.0	56.0	53.0
8	5.3	24.5	55.4	61.8	58.8	40.0	546.7	49.9	46.9
10	5.9	25.0	53.4	60.3	57.3	40.0	545.4	48.0	45.0
16	7.5	25.0	48.8	57.2	54.2	38.0	543.0	43.9	40.9
20	8.4	25.0	46.4	55.8	52.8	37.0	542.1	42.0	39.0
25	9.4	24.3	43.7	54.3	51.3	36.0	541.2	40.0	37.0
31.25	10.5	23.6	41.4	52.9	49.9	35.1	540.4	38.1	35.1
62.5	15.0	21.5	32.4	48.4	45.4	32.0	538.6	32.1	29.1
100	19.1	20.1	25.2	45.3	42.3	30.0	537.6	28.0	25.0
200	27.6	18	12.2	40.8	37.8	27.0	536.5	22.0	19.0
250	31.1	17.3	7.2	39.3	36.3	26.0	536.3	20.0	17.0
300	34.3	16.8	2.9	38.3	-	25.2	535.5	-	-
400	40	15.9	-	37.8	35	24.0	535	-	-
500	45.3	15.2	-	36.5	34.3	23.0	533	-	-
600	50.1	14.5	-	35	33.5	-	532	-	-
650	52.4	13.9	-	34.6	31.2	-	530	-	-

Electrical performance with frequency over 500MHz is only for reference

AVAILABLE JACKET COLORS				
STANDARD	BLUE	GREEN	YELLOW	WHITE
SPECIAL	Per Customer Request*			
INSULATION COLORS				
PAIR 1	BLUE	WHITE		
PAIR 2	ORANGE	WHITE		
PAIR 3	GREEN	WHITE		
PAIR 4	BROWN	WHITE		

JACKETS ABBREVIATION

Black	B	Last alphabetical character of each part number indicates the color code that the Jacket is available in. For example Part # 6CMR244Bx ("x" indicates all the colors to the left are available for this product.
White	W	
Gray	G	
Blue	O	
Yellow	Y	
Green	V	
Orange	OR	
Purple	P	
Red	R	
Pink	PI	

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FEATURES AND BENEFITS

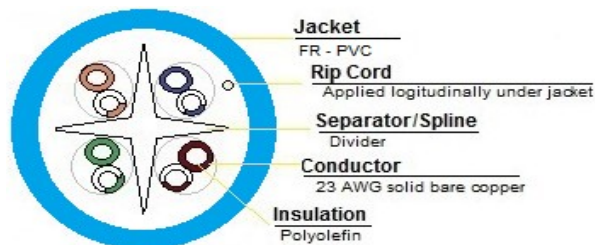
- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330ft)
- Improved cable temperature rating (75°C Riser) for greater protection against increased operating temperatures and for high-wattage applications
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

APPLICATIONS

- IEEE 802.3 10G Base-T, 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
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- ICEA 8-102-700 (Category 6 or 5E)
- REACH Compliant
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- RoHS Compliant Directive 2002/95/EG



PHYSICAL PROPERTIES

Conductor	Material	Solid Bare Copper
	Nominal Outside Diameter (mm)	0.57
Insulation	Material	HDPE
	Diameter (± 0.05mm)	1.03
Filler		Low Smoke
Construction		CMR/Non-Plenum
Jacket	Material	FR - PVC
	Average Thickness (mm)	0.8
	Minimum Point Thickness (mm)	0.7
	Outside Diameter (±0.2mm)	6.9
Rip Cord:		Yes
Drain Wire:		No
Packing	Length	1000ft ± 4ft
	Weight	42 lbs/Reel
Voltage Rating (Max)		DC 300V
Flame Test Method		CMR



ELECTRICAL CHARACTERISTICS

1.0 - 250.0MHz characteristic impedance (ohms)		100Ω±15Ω
1.0 - 250.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (Pf/100m)		≤330
Max. Conductor DC Resistance 20 (ohms/km)		9.38Ω/100m
Resistance Unbalance (%)		≤5
Max Mutual Capacitance		5.6nF/100m
Max DC Loop Resistance		19.2Ω/100m
Min DC Insulation Resistance		150MΩ/Km
Max Propagation Delay Skew		2ns/ft, 40ns/100m
Before Aging	Tensile Strength (Mpa)	≥10.0
	Elongation (%)	≥100
After Aging	Tensile Strength (Mpa)	≥75
	Elongation (%)	≥50
Aging Condition (xhrs)		100°C x 24h x 7d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-20°C ~ +75°C
Velocity of Propagation (%) NVP		70%



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6ACMR234Rx	6ACMP234Rx	6ASHDCMRRx	6ASHDCMPRx	6AOUTG234RB	6AOUTGSHDRB

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ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

PSELFEXT - Power Sum Equal Level Far End Crosstalk (dB/100m)

RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT (dB/100m)	RL (dB)	ACR (dB)	Next (dB)	PSNEXT (dB)	TCL (dB/100m)	PHASE DELAY	ELFEXT (dB/100m)	PSELFEXT dB/100m)
1	2.0	20.0	72.3	74.3	72.3	40.0	570.0	67.8	64.8
4	3.7	23.0	61.5	65.3	63.3	40.0	552.0	55.8	52.8
8	5.2	24.5	55.5	60.8	58.8	40.0	546.7	49.7	46.7
10	5.9	25.0	53.4	59.3	57.3	40.0	545.4	47.8	44.8
16	7.4	25.0	48.8	56.2	54.2	38.0	543.0	43.7	40.7
20	8.3	25.0	46.5	54.8	52.8	37.0	542.1	41.8	38.8
25	9.3	24.3	44.0	53.3	51.3	36.0	541.2	39.8	36.8
31.25	10.4	23.6	41.5	51.9	49.9	35.1	540.4	37.9	34.9
62.5	14.9	21.5	32.5	47.4	45.4	32.0	538.6	31.9	28.9
100	19.0	20.1	25.3	44.3	42.3	30.0	537.6	27.8	24.8
155	24.0	18.8	17.5	41.4	39.4	-	-	24.0	21.0
200	27.5	18.0	12.3	39.8	37.8	27.0	536.5	21.8	18.8
250	31.0	17.3	7.4	38.3	36.3	26.0	536.3	19.8	16.8
300	34.2	16.8	3.0	37.1	35.1	-	536.1	18.3	15.3
350	37.2	16.3	-1.0	36.1	34.1	-	535.9	16.9	13.9
400	40.0	15.9	-4.7	35.3	33.3	-	535.8	15.8	12.8
450	42.7	15.5	-8.2	34.5	32.5	-	-	14.7	11.7
500	45.3	15.2	-11.4	33.8	31.8	-	535.6	13.8	10.8
550	45.3	15.2	-11.4	33.8	31.8	-	353.5	13.8	10.8

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STANDARD	BLUE	WHITE
	RED	
	YELLOW	GREEN
SPECIAL	Per Customer Request*	
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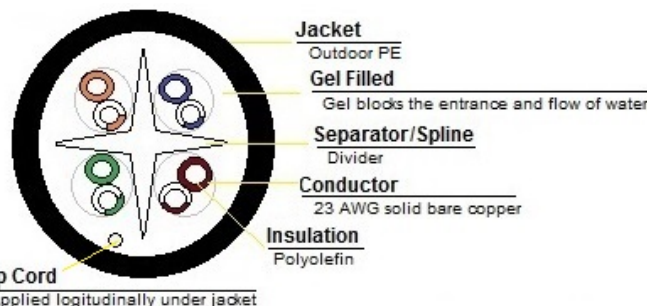
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- Cross web filler for enhanced performance
- Rugged jacket for outside plant applications
- UV resistant polyethylene jacket
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

APPLICATIONS

- IEEE 802.3 10G Base-T, 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
- ANSI/TIA 854: 1000Base-TX
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- REACH Compliant
- CPR Compliant (Fully Comply to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG



PHYSICAL PROPERTIES

Conductor	Material	Solid Bare copper
	Nominal O. D. (mm)	0.565
Insulation	Material	HDPE
	Diameter (± 0.05mm)	1.12
Filler		PE
Construction		Direct Burial/Gel Filled
Jacket	Material	LDPE / UV Rated
	Average Thickness (mm)	0.60
	Minimum Point Thickness (mm)	0.45
	Outside Diameter (±0.4mm)	7.1
Rip Cord:		Yes
Drain Wire:		No
Packing	Length	1000ft ± 4ft
	Weight	35 lbs/Reel
Voltage Rating (Max)		DC 300V



ELECTRICAL CHARACTERISTICS

Characteristic Impedance (ohms)	1.0 - 250.0MHz	100Ω±15Ω
	250.0 - 500.0MHz	100Ω±22Ω
1.0 - 500.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (pF/100m)		≤330
Max. Conductor DC Resistance Unbalance (%)		≤5
Max. Resistance Unbalance (%)		9.38/100m
Nom. Mutual Capacitance		5.8nF/100m
Max DC Loop Resistance		19.0Ω/100m
Min DC Insulation Resistance		5000MΩ.km
Max Propagation Delay Skew		≤45ns/100m
Before Aging	Tensile Strength (Mpa)	≥10.0
	Elongation (%)	≥350
After Aging	Tensile Strength (Mpa)	-
	Elongation (%)	≥300
Aging Period (°C x hrs)		100°C x 24h x 10d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-40°C ~ +75°C
Velocity of Propagation (%) NVP		65%



1000' Wood Reel
Weight: 35 lbs.

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AVAILABLE CATEGORY 6A (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
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ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

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PSNEXT - Power Sum Near End Crosstalk (dB/100m)

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RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT (dB/100m)	RL (dB)	ACR (dB)	Next (dB)	PSNEXT (dB)	TCL (dB/100m)	PHASE DELAY	ELFEXT (dB/100m)	PSELFEXT dB/100m)
1	3.0	19.1	72.2	65.0	62.0	40.0	521	64.2	61.2
4	3.5	21.0	61.5	64.1	61.8	40.0	504	52.1	49.1
8	5.0	21.0	55.4	59.4	57.0	40.0	500	46.1	43.1
10	5.5	21.0	53.4	57.8	55.5	40.0	498	44.2	41.2
16	7.0	20.0	48.8	54.6	52.2	38.0	496	40.1	37.1
20	7.8	19.5	46.4	53.1	50.7	37.0	495	38.2	35.2
25	8.8	19.0	43.7	51.5	49.1	36.0	495	36.2	33.2
31.25	9.8	18.5	41.4	50.0	47.5	35.1	494	34.3	31.3
62.5	14.0	16.0	32.4	45.1	42.7	32.0	492	28.3	25.3
100	18.1	14.0	25.2	41.8	39.3	30.0	491	24.2	21.2
200	26.1	11.0	12.2	36.9	34.3	27.0	490	18.2	15.2
250	29.5	10.0	7.2	35.3	32.7	26.0	490	16.2	13.2
300	32.7	9.2	2.9	34.0	31.4	25.2	490	14.6	11.6
500	43.8	8.0	-	26.7	23.8	23.0	490	10.2	7.2

Electrical performance with frequency over 500MHz is only for reference

AVAILABLE JACKET COLORS		
STANDARD	BLACK	
SPECIAL	Per Customer Request*	
INSULATION COLORS		
PAIR 1	BLUE	WHITE
PAIR 2	ORANGE	WHITE
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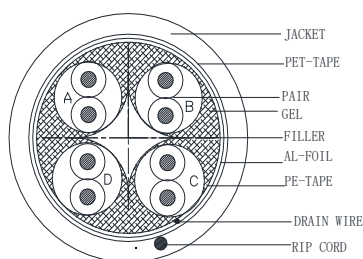
- Cross web filler for enhanced performance
- Rugged jacket for outside plant applications
- UV resistant polyethylene jacket
- Gel filled core
- Sequential footage markings
- Verified by third-party for guaranteed performance

APPLICATIONS

- IEEE 802.3 1000Base-T, 100Base-Tx
10Base-T, PoE+
- ANSI/TIA 854: 1000Base-TX
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- RoHS Compliant Directive 2002/95/EG



Conductor		Material	Solid Bare copper	
		Nominal O.D (mm)	4X2X0.57(+/-0.005)mm	
Insulation		Material	HDPE	
		Diameter (± 0.05mm)	1.12+/-0.03 mm	
Shield Material			Aluminum Foil+Drain wire	
Construction			Direct Burial/Gel Filled/Shielded	
Sheath		Thickness	0.65±0.05 mm	
		External O.D.	2.60X8.0±0.2mm	
		Surface	SMOOTH	
		Material	LLDPE	
		Color	Per request	
Surface Printing		Letter height	3.5±0.3mm	
		Color	WHITE	
		Print error & Space	≤ ± 0.5%, 2ft	
Packing		1000 FT/DRUM		
Weight		49 lbs/Drum		
Packing length		1000ft ± 4ft		
Rip Cord:		Yes	Drain wire	1/0.4mm TC
			DC 300V	
Sheath Physical Properties		Before Aging	Tesile Strength (Mpa)	≥13.0
			Elongation (%)	≥300
		Aging Period(°CXhrs)	100°C X 24h X 7d	
		After Aging Elongation (%)	≥75	
		Cold bend(-40±2°CX4h) 8xCable O.D.	No visible cracks	
Electrical Characteristics(20°C)		Capacitance Unbalance (pF/100m)		<=330
		DC Conductor Resistance Unbalance (%) max		5.0
		DC REsistance (Ω/1Km) max		90
		Impedance (Ω)	1.0-250.0 MHz	100±15
			250.0-600.0 MHz	100±25
		NVP	68%	
Capacitance Unbalance (pF/100m)		<=330		
Temperature Range			-40°C to 75°C	

1000' Wood Reel

Weight: 49 lbs.

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AVAILABLE CATEGORY 6 (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
6CMR244Bx	6CMP234Bx	6SHDCMRRx	6SHDCMPRx	6OUT234RB	6OUTGSHDRB
6CMR234Bx				6OUTG234RB	6OUTWSHDRB
				6OUTW234RB	
				6OUTA234RB	

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PART NO. 6AOUTGSHDRX

ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

PSELFEXT - Power Sum Equal Level Far End Crosstalk (dB/100m)

RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT ≤dB	RL ≥(dB)	Next ≥(dB)	PHASE DE- LAY ≤ns	PSNEXT ≥(dB)	ELFEXT ≥dB	PSELFEXT ≥dB
1	2.1	20	75.3	570.0	72.3	68.0	65.0
4	3.8	23.0	66.3	552.0	63.3	56.0	53.0
8	5.3	24.5	61.8	546.7	58.8	49.9	46.9
10	5.9	25.0	60.3	545.4	57.3	48.0	45.0
16	7.5	25.0	57.2	543.0	54.2	43.9	40.9
20	8.4	25.0	55.8	542.1	52.8	42.0	39.0
25	9.4	24.3	54.3	541.2	51.3	40.0	37.0
31.25	10.5	23.6	52.9	540.4	49.9	38.1	35.1
62.5	15.0	21.5	48.4	538.6	45.4	32.1	29.1
100	19.1	20.1	45.3	537.6	42.3	28.0	25.0
200	27.6	16.4	40.8	536.5	37.8	22.0	19.0
250	31.1	15.6	39.3	536.3	36.3	20.0	17.0
300	34.3	14.9	38.1	536.1	35.1	18.5	15.5
500	45.3	13.0	34.8	535.6	31.8	14.0	11.0
600	48.5	12.3	33.6	535.0	30.6	12.0	10.0

JACKETS ABBREVIATION

Black	B	Last alphabetical character of each part number indicates the color code that the Jacket is available in. For example Part # 6CMR244Bx ("x" indicates all the colors to the left are available for this product.
White	W	
Gray	G	
Blue	O	
Yellow	Y	
Green	V	
Orange	OR	
Purple	P	
Red	R	
Pink	PI	

AVAILABLE JACKET COLORS		
STANDARD	BLACK	
SPECIAL	Per Customer Request*	
INSULATION COLORS		
PAIR 1	BLUE	WHITE
PAIR 2	ORANGE	WHITE
PAIR 3	GREEN	WHITE
PAIR 4	BROWN	WHITE

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DESCRIPTION

- 23 AWG 4 Pair F/UTP 10G Category 6A cable tested to ANSI/TIA 568-C.2 for 10Gbps @500Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in Wood Reel for easier installation.

FEATURES AND BENEFITS

- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330 ft)
- Improved cable temperature rating (90°C Plenum) for greater protection against increased operating temperatures and for high-wattage applications
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

APPLICATIONS

- IEEE 802.3 10G Base-T, 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
- ANSI/TIA 854: 1000Base-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

STANDARD COMPLIANCES

- ANSI/TIA 568-C.2
- ANSI/TIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class EI)
- ICEA 8-102-700 (Category 6 or 5E)
- REACH Compliant
- CPR Compliant (Fully Comply to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG

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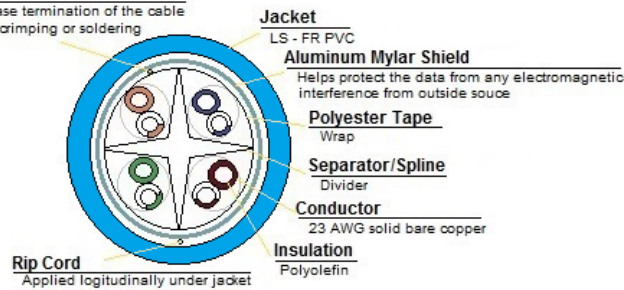


CAT6A 23AWG/4PAIR 10G CMP SHIELDED F/UTP

PART NO. 6ASHDCMPRx

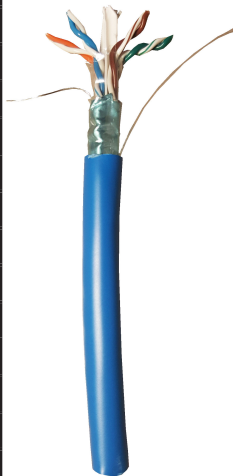
Drain Wire

Used to ease termination of the cable shield for crimping or soldering



PHYSICAL PROPERTIES

Conductor	Material	Bare copper
	Nominal Outside Diameter (mm)	4x2x0.58 (±0.005)
Insulation	Material	FEP
	Diameter (± 0.05mm)	1.15
Screen Material		AL-FOIL + Drain Wire (0.4TC)
Construction		Shielded / Plenum
Jacket	Material	LS-FR PVC
	Average Thickness (mm)	0.75
	Minimum Point Thickness (mm)	0.6
	Outside Diameter (±0.2mm)	7.8
Rip Cord:		Yes
Drain Wire:		Yes
Packing	Length	1000ft ± 4ft
	Weight	49 lbs/Reel
Voltage Rating (Max)		DC 300v
Test Flame Method		CMP



ELECTRICAL CHARACTERISTICS

1.0 - 250.0MHz characteristic impedance (ohms)		100Ω±15Ω
250-650.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (Pf/100m)		≤330
Max. Conductor DC Resistance Unbalance (%)		≤5
Max. Resistance Unbalance (%)		9.38/100m
Max Mutual Capacitance		5.6nF/100m
Max DC Loop Resistance		19.2Ω/100m
Min DC Insulation Resistance		150ms2/km
Max Propagation Delay Skew		40ns/100m
Before Aging	Tensile Strength (Mpa)	≥10.0
	Elongation (%)	≥100
After Aging	Tensile Strength (Mpa)	-
	Elongation (%)	≥75
Aging Period (°C x hrs)		100°C x 24h x 7d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-20°C ~ +75°C
Velocity of Propagation (%) NVP		70%



1000' Wood Reel
Weight: 49 lbs.

AVAILABLE CATEGORY 6 (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
6ACMR234Rx	6ACMP234Rx	6ASHDCMRRx	6ASHDCMPRx	6AOUTG234RB	6AOUTGSHDRB

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ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

PSELFEXT - Power Sum Equal Level Far End Crosstalk (dB/100m)

RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT (dB/100m)	RL (dB)	ACR (dB)	Next (dB)	PSNEXT (dB)	TCL (dB/100m)	PHASE DELAY	ELFEXT (dB/100m)	PSELFEXT dB/100m)
1	2.1	20.0	72.2	75.3	72.3	40.0	570.0	68.0	65.0
4	3.8	23.0	61.5	66.3	63.3	40.0	552.0	56.0	53.0
8	5.3	24.5	55.4	61.8	58.8	40.0	546.7	49.9	46.9
10	5.9	25.0	53.4	60.3	57.3	40.0	545.4	48.0	45.0
16	7.5	25.0	48.8	57.2	54.2	38.0	543.0	43.9	40.9
20	8.4	25.0	46.4	55.8	52.8	37.0	542.1	42.0	39.0
25	9.4	24.3	43.7	54.3	51.3	36.0	541.2	40.0	37.0
31.25	10.5	23.6	41.4	52.9	49.9	35.1	540.4	38.1	35.1
62.5	15.0	21.5	32.4	48.4	45.4	32.0	538.6	32.1	29.1
100	19.1	20.1	25.2	45.3	42.3	30.0	537.6	28.0	25.0
200	27.6	18	12.2	40.8	37.8	27.0	536.5	22.0	19.0
250	31.1	17.3	7.2	39.3	36.3	26.0	536.3	20.0	17.0
300	34.3	16.8	2.9	38.3	35.5	25.2	535.5	-	-
400	40	15.9	-	37.8	35	24.0	535	-	-
500	45.3	15.2	-	36.5	34.3	23.0	533	-	-
600	50.1	14.5	-	35	33.5	-	532	-	-
650	52.4	13.9	-	34.6	31.2	-	530	-	-

Electrical performance with frequency over 500MHz is only for reference

AVAILABLE JACKET COLORS		
STANDARD	BLUE	WHITE
SPECIAL	Per Customer Request*	
INSULATION COLORS		
PAIR 1	BLUE	WHITE
PAIR 2	ORANGE	WHITE
PAIR 3	GREEN	WHITE
PAIR 4	BROWN	WHITE

JACKETS ABBREVIATION

Black	B	Last alphabetical character of each part number indicates the color code that the Jacket is available in. For example Part # 6CMR244Bx ("x" indicates all the colors to the left are available for this product.
White	W	
Gray	G	
Blue	O	
Yellow	Y	
Green	V	
Orange	OR	
Purple	P	
Red	R	
Pink	PI	

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CAT6A 23AWG/4PAIR 10G CMR SHIELDED U/FTP

PART NO. 6ASHDCMRRx

DESCRIPTION

- 23 AWG 4 Pair U/FTP 10G Category 6A cable tested to ANSI/TIA 568-C.2 for 10Gbps @500Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in Wood Reel for easier installation.

FEATURES AND BENEFITS

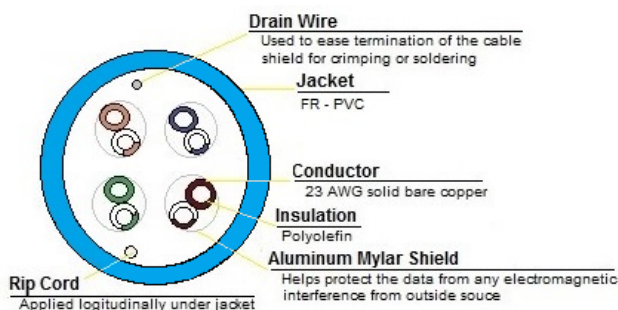
- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330 ft)
- Improved cable temperature rating (75°C Plenum) for greater protection against increased operating temperatures and for high-wattage applications
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

APPLICATIONS

- IEEE 802.3 10G Base-T, 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
- ANSI/TIA 854: 1000Base-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

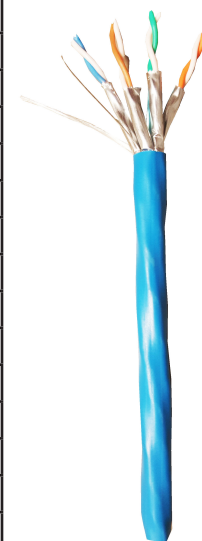
STANDARD COMPLIANCES

- ANSI/TIA 568-C.2
- ANSI/TIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class EI)
- ICEA 8-102-700 (Category 6 or 5E)
- REACH Compliant
- CPR Compliant (Fully Comply to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG



PHYSICAL PROPERTIES

Conductor	Material	Solid Bare copper
	Nominal Outside Diameter (mm)	0.565
Insulation	Material	HDPE
	Diameter (± 0.05mm)	1.12
Filler		Aluminum Foil
Construction		Shielded/Non-Plenum
Jacket	Material	FR - PVC
	Thickness (mm)	0.55
	Minimum Point Thickness (mm)	0.4
	Outside Diameter (±0.4mm)	7.4
Rip Cord:		Yes
Drain Wire:		Yes
Packing	Length	1000ft ± 4ft
	Weight	38 lbs/Reel
Voltage Rating (Max)		DC 300V
Test Flame Method		CMR



ELECTRICAL CHARACTERISTICS

Characteristic Impedance (ohms)	1.0 - 250.0MHz	100Ω±15Ω
	250.0 - 500.0MHz	100Ω±22Ω
	500.0 - 600.0MHz	Reference values
1.0 - 600.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (pF/100m)		≤330
Max. Conductor DC Resistance Unbalance (%)		≤5
Max. Resistance Unbalance (%)		9.38/100m
Nom. Mutual Capacitance		5.8nF/100m
Max DC Loop Resistance		19.0Ω/100m
Min DC Insulation Resistance		5000MΩ.km
Max Propagation Delay Skew		≤45ns/100m
Before Aging	Tensile Strength (Mpa)	≥13.8
	Elongation (%)	≥100
After Aging	Tensile Strength (Mpa)	≥85% of unaged
	Elongation (%)	≥50% of unaged
Aging Period (°C x hrs)		100°C x 24h x 7d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-20°C ~ +75°C
Velocity of Propagation (%) NVP		70%



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AVAILABLE CATEGORY 6A (PART NUMBERS)					
PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
6ACMR234Rx	6ACMP234Rx	6ASHDCMRRx	6ASHDCMPRx	6AOUTG234RB	6AOUTGSHDRB

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ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

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TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

FREQUENCY (MHz)	ATT (dB/100m)	RL (dB)	ACR (dB)	Next (dB)	PSNEXT (dB)	TCL (dB/100m)	PHASE DELAY	ELFEXT (dB/100m)	PSELFEXT dB/100m)
1	-	20.0	72.2	74.3	72.3	40.0	570.0	68.0	65.0
4	3.8	23.0	61.5	65.3	63.3	40.0	552.0	56.0	53.0
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300	34.3	16.8	2.9	37.1	35.1	25.2	535.5	18.5	15.5
500	45.3	15.2	-	33.8	31.8	23.0	533	14.0	11.0
600	50.1	14.7	-	32.6	30.6	-	532	12.2	9.2

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