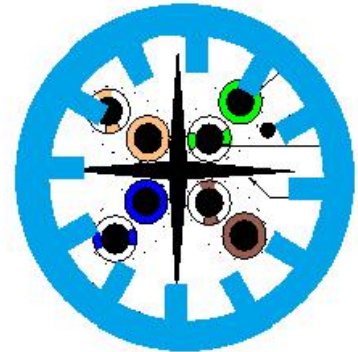


## Category 6A UTP Cable

Part Number:PROCAT6A



### Cat6A Network Cable

Antimagnetic interference improve transmission quality

## Application

10G BASE-T Ethernet ATM CB1G 100VG-Any LAN	100BASE-TX Fast Ethernet 155/622 Mbps ATM 4/16 Mbps Token Ring	1000BASE-TX Gigabit Ethernet 100 Mbps TP-PMD	10G BASE-TX Ethernet
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## Standards

ANSI EIA/TIA 568 C.2;  
ISO/IEC 11801 2<sup>nd</sup> Edition; IEC 61156-5  
EN 50173; EN 50288-3-1  
IEEE 802.3at  
UL - E488955  
ETL

## Flame resistance

IEC 60332-1  
CMX  
CM  
CMR

## Construction

Conductor	Bare copper wire (AWG23/1)
Insulation	Polyethylene, $\varnothing 1.06\pm 0.02$ mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Sheath CM	PVC Blue RAL 5015

## Mechanical properties

Minimum bending radius	Installation	8 x D
Temperature range	Installed during operation	4 x D
	during installation	-20°C ~ + 60°C
		0°C ~ + 50°C



## Electrical properties @ 20°C

Dielectric strength	2.5 KV dc-2 seconds
Conductor resistance	Max 7.00 ohm/100M at 20°C
Max. Ring resistance	16.8 Ohm/100M at 20°C
Max. Mutual capacitance	560 pf/100M
Max. Capacity unbalance	330 pf/100M
Mean characteristic impedance 100 MHz	100 ± 15 Ω
Nominal velocity of propagation	approx. 67 %
Propagation delay	Nominal 435 ns/100m
Delay skew	Nominal 18 ns/100m
Test voltage (DC, 1 min)	1000 V
Core/Core Coupling attenuation	≥ 40 dB

## Nominal transmission characteristics @ 20°C

Frequency (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1	2.1	75	72	67	65	20
4	3.8	66	63	55	53	23
10	5.9	60	57	47	45	25
16	7.5	57	54	43	41	25
20	8.4	56	53	41	39	25
31.2	10.5	53	50	37	35	24
62.5	15	48	45	31	29	22
100	19.1	45	42	27	25	20
125	21.5	44	41	25	23	19
155.5	24.1	43	40	23	21	19
175	25.7	42	39	22	20	18
200	27.6	41	38	21	19	18
250	31.1	38.3	36	19	17	17.3
500	45.3	33.8	31.8	13.8	11.8	17.3

## Product Code Table

Product Description	Packing Length	Part Number
23AWG Cat.6A UTP 4P PVC UL CM Blue Color	1000ft Wooden Drum/Carton	PROCAT6A

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All sizes and values without tolerances are reference values. Specifications are for product as supplied by Syscom: any modification or alteration afterwards of product may give different result.

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## Cable ID: PROCAT6A-HLX038[1]

## Test Summary: PASS

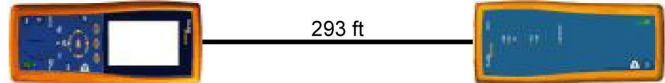
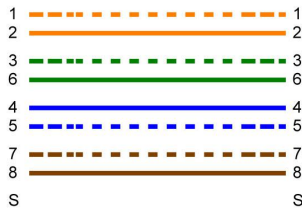
Date / Time: 07/07/2017 10:44:02am  
 Headroom: 2.4 dB (NEXT 36-45)  
 Test Limit: TIA Cat 6A Perm. Link  
 Cable Type: Cat 6A UTP

Operator: Your Name  
 Software Version: 2.7400  
 Limits Version: 1.9300  
 NVP: 69.0%

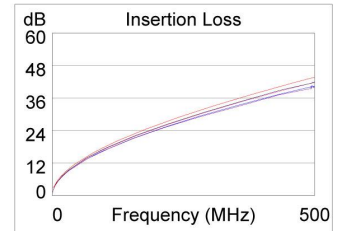
Model: DTX-1800  
 Main S/N: 1739303  
 Remote S/N: 1739304  
 Main Adapter: DTX-PLA002  
 Remote Adapter: DTX-PLA002

### Wire Map (T568B)

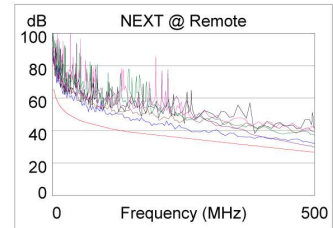
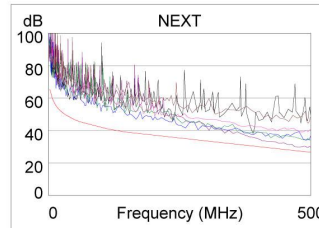
PASS



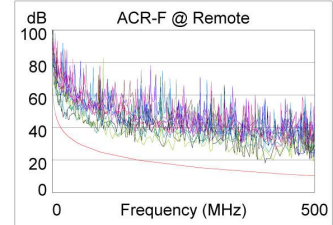
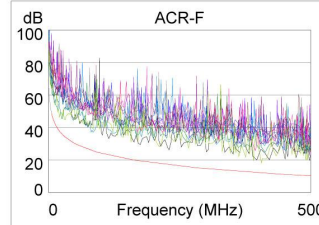
Length (ft), Limit 295	[Pair 78]	293
Prop. Delay (ns), Limit 498		453
Delay Skew (ns), Limit 44		22
Resistance (ohms)	[Pair 78]	12.4
Insertion Loss Margin (dB)	[Pair 36]	1.7
Frequency (MHz)	[Pair 36]	499.0
Limit (dB)	[Pair 36]	43.7



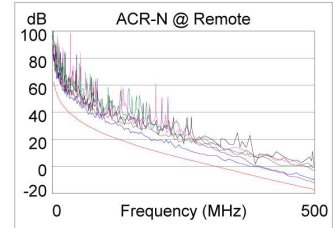
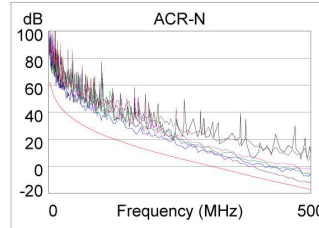
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	36-45	36-45	36-45	36-45
<b>NEXT (dB)</b>	2.4	3.0	2.4	3.0
Freq. (MHz)	481.0	500.0	481.0	500.0
Limit (dB)	27.2	26.7	27.2	26.7
Worst Pair	36	36	36	36
<b>PS NEXT (dB)</b>	3.3	3.3	3.4	3.3
Freq. (MHz)	483.0	500.0	492.0	500.0
Limit (dB)	24.3	23.8	24.0	23.8



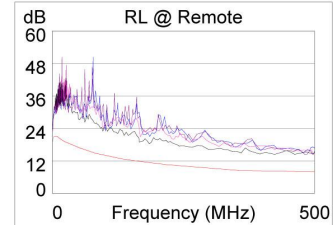
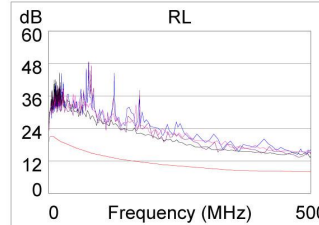
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	78-12	78-12	78-12	12-78
<b>ACR-F (dB)</b>	6.1	6.1	6.1	6.2
Freq. (MHz)	406.0	391.0	406.0	406.0
Limit (dB)	12.0	12.3	12.0	12.0
Worst Pair	12	78	12	78
<b>PS ACR-F (dB)</b>	9.0	8.9	9.0	8.9
Freq. (MHz)	406.0	406.0	406.0	406.0
Limit (dB)	9.0	9.0	9.0	9.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>N/A</b>				
Worst Pair	36-45	36-45	36-45	36-45
<b>ACR-N (dB)</b>	4.2	4.8	4.7	4.8
Freq. (MHz)	469.0	498.0	500.0	500.0
Limit (dB)	-14.6	-16.9	-17.1	-17.1
Worst Pair	36	36	36	36
<b>PS ACR-N (dB)</b>	4.8	5.2	5.4	5.2
Freq. (MHz)	484.0	499.0	496.0	500.0
Limit (dB)	-18.7	-19.9	-19.7	-20.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	78	45	78	45
<b>RL (dB)</b>	5.1	6.1	5.1	6.1
Freq. (MHz)	475.0	459.0	475.0	459.0
Limit (dB)	8.0	8.0	8.0	8.0



Compliant Network Standards:

10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	10GBASE-T	ATM-25
ATM-51	ATM-155	100VG-AnyLan
TR-4	TR-16 Active	TR-16 Passive

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