

## Category 6 UTP Cable for Outdoor Use

Part Number:PROCAT6GELX



### Application

Voice, Data, Security and Video Applications.  
IP Megapixel CCTV/Analog Installations  
Wire Access Points  
Gigabit Indoor Video/data installations  
Long distance PoE feeding  
Generic cabling systems. Outdoor installations. Filled with compound to prevent water penetration

### 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  
ETL

### Water Proof Rating

EN 50289-4-2

### Construction

Conductor	Bare copper wire (AWG23/1)
Insulation	Polyethylene, $\varnothing 1.04 \pm 0.02$ mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core, with cross separator
Filling	Jelly Compound to prevent moisture migration.
Inner Sheath CM	PVC Grey RAL 5015
Outer Sheath	Black LDPE UV RATED

### Mechanical properties

Minimum bending radius	Installation	10 x D
Temperature range	Installed	5 x D
	during operation	-40° C ~ + 70° C
	during installation	-20° 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 535 ns/100m
Delay skew	Nominal 20 ns/100m
Test voltage (DC, 1 min)	1000 V
Core/Core Coupling attenuation	≥ 50 dB

## Nominal transmission characteristics @ 20° C

Frequency (Mhz)	Impedance (Ω)	RL (dB)	ATT (dB/100)	NEXT (dB)	PS.NEXT (dB)	ELFEXT (dB)	PS-ELFEXT (dB)
0.772	100 ±15	19.44	1.84	76	74	70	67
1	100 ±15	20	2.04	74.3	72.3	67.8	64.8
4	100 ±15	23.01	3.81	65.3	63.3	55.8	52.8
10	100 ±15	25	5.99	59.3	57.3	47.8	44.8
16	100 ±15	25	7.6	56.2	54.2	43.7	40.7
20	100 ±15	25	8.52	54.8	52.8	41.8	38.8
25	100 ±15	24.32	9.57	53.3	51.3	39.8	36.8
31.25	100 ±15	23.64	10.74	51.9	49.9	37.9	34.9
62.3	100 ±15	21.54	15.48	47.4	45.4	31.9	28.9
100	100 ±15	20.1	19.92	44.3	42.3	27.8	24.8
125	100 ±22	19.42	22.49	42.8	40.8	25.9	22.9
200	100 ±22	18	29.15	39.8	37.8	21.8	18.8
250	100 ±32	17.32	33.04	38.3	36.3	19.8	16.8
300	-	-	36.10	41.0	38.0	32.0	30.0
400	-	-	41.70	39.0	36.0	30.0	28.0

## Product Code Table

Product Description	Packing Length	Part Number
23AWG Cat.6 UTP 4P Blue PVC+LDPE Black Water Proof	1000ft Wooden Drum	PROCAT6GELX
23AWG Cat.6 UTP 4P Blue PVC+LDPE Black Water Proof	500ft Wooden Drum	PROCAT6GELX/500

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## Cable ID: PROCAT6GELX-EHLX003

## Test Summary: PASS

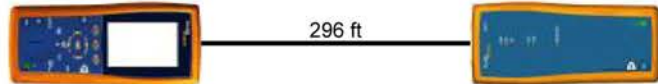
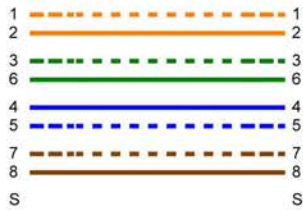
Date / Time: 04/29/2017 07:30:18am  
 Headroom: 7.3 dB (NEXT 12-36)  
 Test Limit: TIA Cat 6 Perm. Link  
 Cable Type: Cat 6 UTP

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

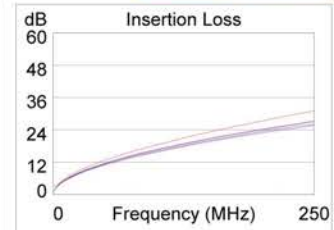
Model: DTX-1800  
 Main S/N: 1739303  
 Remote S/N: 1739304  
 Main Adapter: DTX-PLA002  
 Remote Adapter: DTX-PLA002

### Wire Map (T568B)

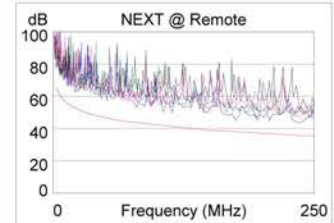
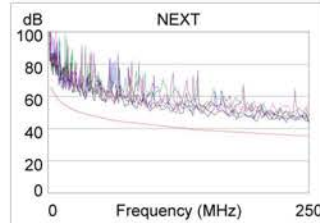
**PASS**



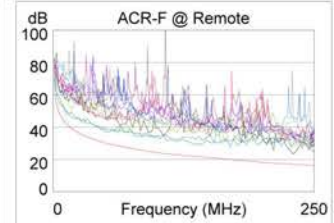
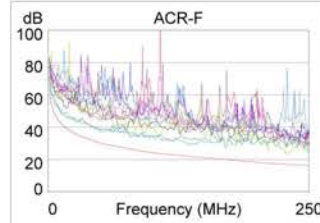
Length (ft), Limit 295	[Pair 78]	296
Prop. Delay (ns), Limit 498		456
Delay Skew (ns), Limit 44		20
Resistance (ohms)	[Pair 78]	12.4
Insertion Loss Margin (dB)	[Pair 36]	3.9
Frequency (MHz)	[Pair 36]	249.5
Limit (dB)	[Pair 36]	31.1



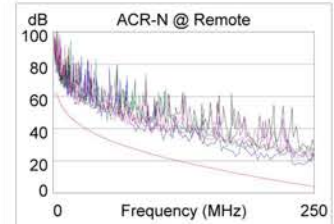
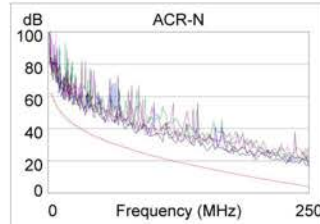
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	12-78	12-36	36-45	12-36
<b>NEXT (dB)</b>	7.4	7.3	7.9	7.3
Freq. (MHz)	110.0	174.5	250.0	232.5
Limit (dB)	41.2	37.9	35.3	35.9
Worst Pair	36	36	36	12
<b>PS NEXT (dB)</b>	6.8	8.2	6.8	8.6
Freq. (MHz)	250.0	195.5	250.0	237.0
Limit (dB)	32.7	34.5	32.7	33.1



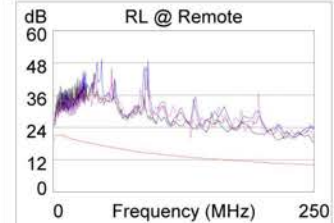
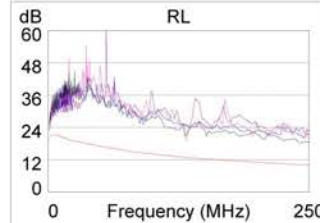
	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	36-45	45-36	78-12	12-78
<b>ACR-F (dB)</b>	5.8	5.8	5.9	6.3
Freq. (MHz)	12.5	12.5	230.0	230.0
Limit (dB)	42.3	42.3	17.0	17.0
Worst Pair	36	36	12	78
<b>PS ACR-F (dB)</b>	8.0	8.5	8.5	8.6
Freq. (MHz)	1.0	12.5	230.0	230.0
Limit (dB)	61.2	39.3	14.0	14.0



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>N/A</b>				
Worst Pair	12-78	12-36	36-45	12-36
<b>ACR-N (dB)</b>	9.2	10.2	11.8	11.3
Freq. (MHz)	12.9	174.5	250.0	237.0
Limit (dB)	49.8	12.6	4.2	5.6
Worst Pair	12	78	36	36
<b>PS ACR-N (dB)</b>	9.7	10.5	10.7	12.7
Freq. (MHz)	12.8	7.3	249.5	237.0
Limit (dB)	47.5	53.0	1.7	2.9



	Worst Case Margin		Worst Case Value	
	MAIN	SR	MAIN	SR
<b>PASS</b>				
Worst Pair	36	78	45	45
<b>RL (dB)</b>	6.4	6.5	7.7	8.6
Freq. (MHz)	132.5	4.6	239.5	248.5
Limit (dB)	12.8	21.0	10.2	10.0



Compliant Network Standards:  
 10BASE-T      100BASE-TX      100BASE-T4  
 1000BASE-T      ATM-25      ATM-51  
 ATM-155      100VG-AnyLan      TR-4  
 TR-16 Active      TR-16 Passive