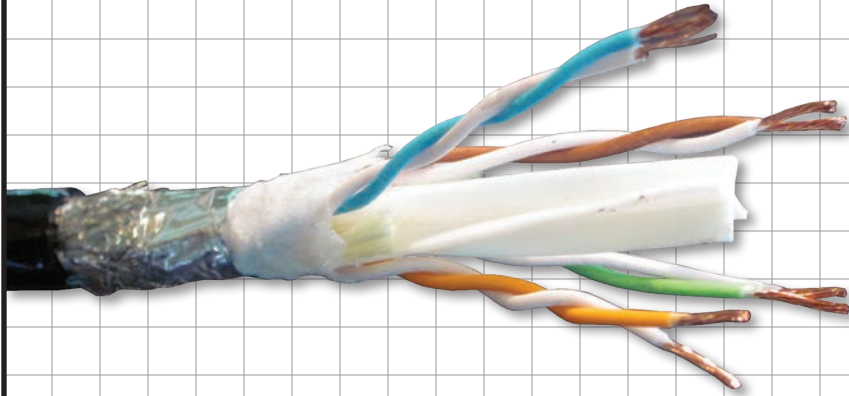


**PRELIMINARY**

# ProPlex™

## CAT6a Ethernet Cable PCCAT6AP



### Applications

Flexible cable for digital, communication and local area network, indoor and outdoor use, harsh environmental applications, and high data rates.

### General construction

The cable includes 4 twisted pairs, special central filler unit and Aramid in SF/UTP structure and an industrial grade PU compound jacket.

### General Specifications

<b>Conductors</b>	23 AWG (0.26 mm <sup>2</sup> ) 7x0.22 mm stranded bare copper.
<b>Insulation</b>	SFS PO, Nom. Diameter 0.043" [1.1 mm]
<b>Pairs</b>	Color Coded singles twisted into pairs
	Color Code: White X Blue; White X Orange; White X Green; White X Brown
<b>Assembly</b>	4 pairs with Aramid strength members cabled together with a special shaped central filler member
<b>Shields</b>	Aluminum foil, 100% coverage with 30% overlap, metal face out. Tinned copper braid, 80% nom coverage.
<b>Jacket</b>	Material: Industrial grade PU compound OD: 8.3 mm +/- 0.3 mm Color: Black
<b>Marking</b>	ProPlex PCCAT6AP Cat.6A SF/UTP Data Cable [+batch number]
<b>Weight</b>	54.4 lbs./mft (81 Kg/Km)
<b>Temperature Range</b>	Working: -40°C to +70°C
<b>Bending Radius</b>	75 mm min.
<b>Typical Operational Installation Length</b>	Up to 85 m (20°C)
<b>Tensile Force</b>	150 N max.
<b>Compliance</b>	Flame test: IEC 60332.1 Environmental: per IEC 61156-6 and ISO/IEC 11801 RoHS compliance: 2002/95/EC

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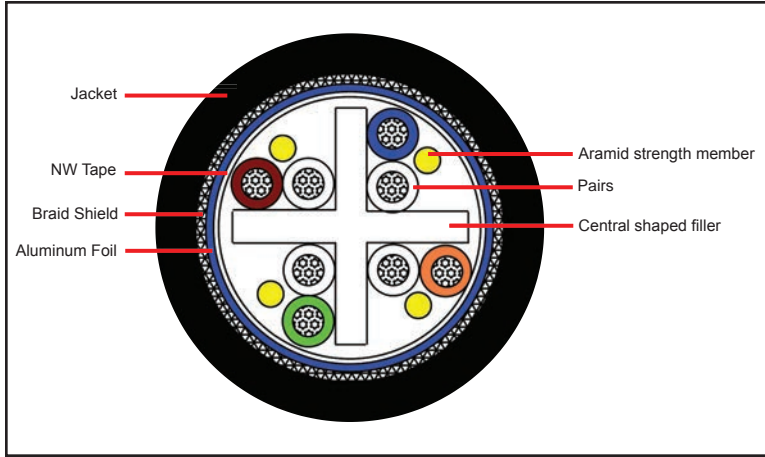
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## Electrical Specifications

Dielectric Strength	500 Vrms/min.
Pair Mutual Capacitance	42 pF/m
Capacitance Unbalance	1.5 pF/m (800 Hz)
Pair characteristic impedance	100 +/- 15 Ohm
NVP (Nominal Velocity of Propagation)	78 %
Max skew delay	30 nSec/100m
Conductor DC resistance (20° C)	75 Ohm
Resistance unbalance (within pairs)	2% max.
Insulation resistance	Not less than 5 GΩ-km
Alien cross talk	Proven by design per IEC 61156-6
Coupling Attenuation	Type I per IEC 61156-6
Transfer impedance	Grade 1 per IEC 61156-6
Transverse conversion loss (TCL)	Level A per IEC 61156-6

## Transmission Performance

Freq. MHz	Attenuation dB/100m 20°C	PS NEXT Loss dB	NEXT Loss dB	RL dB	PS ANEXT dB	PS ELFEXT dB	ELFEXT dB
	Typical value	Typical value	Typical value	Typical value	Typical value	Typical value	Typical value
1	2.4	72.3	75.3	20	67	65	68
4	4.2	63.3	66.3	23	67	53	56
10	6.4	57.3	60.3	25	67	45	48
20	9.1	52.8	55.8	25	67	39	42
30	11.5	50.1	53.1	23.8	67	35.4	38.4
100	21.4	42.3	45.3	21.1	62.5	25	28
150	26.6	39.7	42.7	18.8	59.8	21.5	24.5
200	50.5	37.8	40.8	18	58	19	22
250	34.3	36.3	39.3	17.3	56.5	17	20
300	37.7	35.1	38.1	17.3	55.3	15.5	18.5
400	44.5	33.3	36.3	17.3	53.4	13	16
500	50.5	31.8	34.8	17.3	52	11	14

ProPlex CAT6a Ethernet cables (w/copper conductor) meets attenuation specs up to 85m (275 ft).