

## CAT6 F/UTP 23AWG 4PAIR PVC

### STANDARDS

ANSI/TIA-568-C.2, IEC 61156-5  
EN 50288-6-1  
EN 50173  
ISO/IEC 11801  
EN 50575

### APPLICATIONS

10BASE-T (IEEE 802.3)  
4/16 Mbps TOKEN RING (IEEE 802.5)  
100BASE-VG-AnyLAN  
100 Mbps TP-PMD (ANSI X3T9.5)  
100BASE-T (IEEE 802.3)  
55/155 Mbps ATM  
1000BASE-T (Gigabit Ethernet)

### CERTIFICATION



### COLOR CODES

Insulation Color:

P1: White / Blue & Blue  
P2: White / Orange & Orange  
P3: White / Green & Green  
P4: White / Brown & Brown

Jacket Color:

Option

### CABLE PRINTING

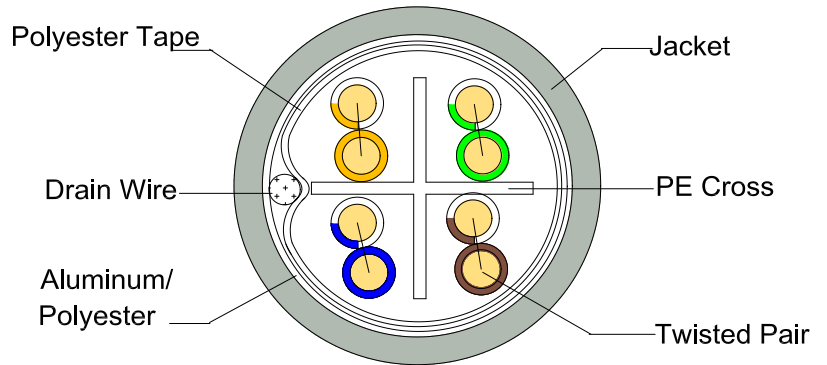
Option

### PACKAGING

1. Reel/ 305m  
2. Reel/ 500m

### TEST REQUIREMENT

Pass fluke 90m permanent link test  
TIA-568-C.2



Conductor Material		99.99% Solid Bare Copper
Conductor Number		8C(4 pairs)
Cable AWG		23
Construction(±0.01mm)		1/0.57
Separator		PE CROSS
Wrapping tape Overlap		Polyester Tape ≥25%
Drain Wire (1/0.40)		Solid Tinned copper
Shield Overlap		aluminum/polyester ≥25%
Insulation	Material	PE
	Nom. Thickness(mm)	0.26
	Diameter(±0.08mm)	1.15
Jacket	Material	PVC
	Nom. Thickness(mm)	0.50
	Diameter(±0.30mm)	7.50

### ELECTRICAL PERFORMANCE

Max. Conductor DC Resistance (Ω/km)		93
Min. Insulation Resistance (MΩ-KM)		5000
Dielectric Strength		DC-1KV/1 Min
1.0-250MHZ Characteristic Impedance(ohms)		100Ω±15Ω
1.0-250MHZ Delay Skew(ns/100m)		≤45
Pair to Ground Capacitance Unbalance(Pf/100m)		≤330
Resistance Unbalance(%)		≤4
Max Mutual Capacitance		5.6nF/10
Max DC Loop Resistance		19.2Ω/100m
Before Aging	Tensile Strength(Mpa)	≥13.5
	Elongation(%)	≥100
After Aging 100°C*24h*7d	Tensile Strength(Mpa)	≥75%
	Elongation(%)	≥50
Velocity of Propagation NVP		69%

Freq.	ATTN	RL	NEXT	ELFEXT	PS NEXT	PS ELFEXT
(MHz)	(dB/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)	(dB/100m)
1	2.0	20.0	74.3	67.8	72.3	64.8
4	3.8	23.0	65.3	55.8	63.3	52.8
8	5.3	24.5	60.8	49.7	58.8	46.7
10	6.0	25.0	59.3	47.8	57.3	44.8
16	7.6	25.0	56.2	43.7	54.2	40.7
20	8.5	25.0	54.8	41.8	52.8	38.8
25	9.5	24.3	53.3	39.8	51.3	36.8
31.25	10.7	23.6	51.9	37.9	49.9	34.9
62.5	15.4	21.5	47.4	31.9	45.4	28.9
100	19.8	20.1	44.3	27.8	42.3	24.8
200	29.0	18.0	39.8	21.8	37.8	18.8
250	32.8	17.3	38.3	19.8	36.3	16.8

### TIA-568-C.2

#### TIA Cat 6 Perm. Link

Wire Map	Res.	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F
	$\Omega$	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB
12345678	i	90 m	498	44	1	3	65.0	19.1	62.0	64.2	62.0	59.0	61.2
12345678					4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1
					8	5	59.4	21.0	54.4	46.1	57.0	52.1	43.1
12345678S					10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2
12345678S					16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1
					20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2
					25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2
					31.25	10	50.0	18.5	40.0	34.3	47.5	37.6	31.3
					62.5	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3
					100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2
					200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2
					250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2



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