

CAT6A U/FTP 23AWG 4PAIR PVC

STANDARDS

ANSI/TIA-568-C.2 IEC 61156-5
EN 50288-10-1
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)
1.2 Gbps ATM
10G BASE-T

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

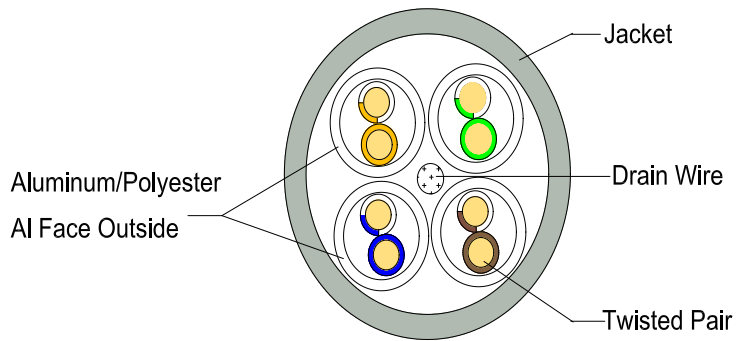
Option

PACKAGING

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

TEST REQUIREMENT

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



CONSTRUCTION

Conductor Material	99.99% Solid Bare Copper	
Conductor Number	8C(4 pairs)	
Cable AWG	23	
Construction(±0.01mm)	1/0.57	
Shield Overlap	aluminum/polyester ≥25%	
Drain Wire (1/0.40)	Tinned copper	
Insulation	Material	SKIN-FOAM- SKIN
	Nom. Thickness(mm)	0.37
	Diameter(±0.05mm)	1.38
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	
1.0-500MHZ Delay Skew(ns/100m)	≤45	
Pair to Ground Capacitance Unbalance(PF/100m)	≤330	
Resistance Unbalance between pairs(%)	≤4	
Max Mutual Capacitance	5.6nF/100m	
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	78%	

Freq.	ATTN	RL	NEXT	ELFEXT	PS NEXT	PS ELFEXT
(MHz)	(dB/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)	(dB/100m)
4	3.8	23.0	66.3	56.0	63.3	53.0
8	5.3	24.5	61.8	49.9	58.8	46.0
10	5.9	25.0	60.3	48.0	57.3	45.0
16	7.5	25.0	57.2	43.9	54.2	40.9
20	8.4	25.0	55.8	42.0	52.8	39.0
25	9.4	24.3	54.3	40.0	51.3	37.0
31.25	10.5	23.6	52.9	38.1	49.9	35.1
62.5	15.0	21.5	48.4	32.1	45.4	29.1
100	19.1	20.1	45.3	28.0	42.3	25.0
200	27.6	18.0	40.8	22.0	37.8	19.0
250	31.1	17.3	39.3	20.0	36.3	17.0
300	34.1	17.3	38.1	18.5	35.1	15.5
500	45.3	17.3	34.8	14.0	31.8	11.0

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TIA Cat 6A 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
	Ω	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	60.5	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	50.0	41.2
12345678S					16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1
					20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2
					25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2
					31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3
					62.5	14	45.1	16.0	31.1	28.3	42.7	28.6	25.3
					100	18	41.8	14.0	23.9	24.2	39.3	21.3	21.2
					200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2
					250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2
					350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3
					500	43.8	26.7	8.0	-17.1	10.2	23.8	-20	7.2



Approved By

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