

# Product Specification

## STANDARD COMPLIANCES:

All Proposed Category 6 requirements as per ANSI/TIA, ISO/IEC, and CENELEC EN Standards:

ANSI/TIA-568-B.2-1 CAT.6

ISO/IEC 2<sup>nd</sup> Edition 11801 Class E

CENELEC EN 50173-1

CENELEC EN 50288-6-2, IEC 61156-6 for patch cable

Flame Retardancy is verified according to IEC 60332-1-2.

We implemented RoHS compliance for the requirement of European Union issued Directive 2002/95/EC.

## CONSTRUCTION & CHARACTERISTICS:

Conductor	Material / Size	Bare Copper / 24 AWG
Insulation	Material	HDPE
	Thickness	Nominal : 0.221 mm
	Diameter	Nominal : 1.03 mm
	Colors	Blue/White-Blue    Orange/White-Orange
		Green/White-Green    Brown/White-Brown
	Elongation	Min. 300%
Tensile Strength	Min. 1.683 Kg/mm <sup>2</sup>	
Jacket	Material	PVC
	Thickness	Nominal : 0.50 mm
	Diameter	6.4 ± 0.3 mm
	Color	Assorted upon request
	Elongation	Min. 100%
	Tensile Strength	Min. 1.407 Kg/mm <sup>2</sup>
	Aging at 100°C for 168Hrs	Min. elongation retention: 50% Min. tensile strength retention: 75%
Marking	YFC CAT.6 UTP PATCH CABLE ETL VERIFIED to ANSI/TIA-568-B.2-1 - ISO/IEC 11801 ED.2 & IEC 61156-6 & EN 50288-6-2 & EN 50173-1 & IEC 60332-1-2 3P VERIFIED                      24AWGx4P TYPE CM (UL) c(UL) xx°C E164469-xx    [XXXXXM]	
	or as customer request.	
Flame Test	Burning five times, every time is less than 60 seconds and paper flag can't be burned.	



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**APPROVALS:**

- UL/cUL Listed
- 3P Certified ANSI/TIA -568-B.2-1 Category 6 testing performance requirements.

**APPLICATIONS:**

- 1000BASE-T Gigabit Ethernet
- 10BASE-T, 100BASE-T Fast Ethernet (IEEE 802.3)
- 100 VG – AnyLAN (IEEE802.12), 155/622 Mbps ATM
- Voice, T1, ISDN

**ELECTRICAL PERFORMANCES:**

Spark Test		2000 ± 250 V ac		
Dielectric Strength		2500 V dc / 3 seconds		
Insulation Resistance Test		Min. 150 MΩ/Km		
Conductor Resistance		Max. 9.38 Ω/100m at 20°C		
Resistance Unbalance		Max. 5%		
Capacitance Unbalance		Max. 160 pF/100m		
Mutual Capacitance		Max. 5600 pF/100m		
Impedance	60kHz	125Ω ± 20%		
	1~250MHz	100Ω ± 15%		
Attenuation & Near End Cross Talk	Frequency (MHz)	Attenuation (dB/100M), Max	NEXT (dB), Min.	Power Sum (dB), Min.
	1MHz	--	66.0*	64.0*
	4 MHz	4.6*	65.3*	63.3*
	10 MHz	7.2*	59.3*	57.3*
	16 MHz	9.1*	56.2*	54.2*
	20 MHz	10.2*	54.8*	52.8*
	31.25 MHz	12.8*	51.9*	49.9*
	62.5 MHz	18.6*	47.4*	45.4*
	100 MHz	23.9*	44.3*	42.3*
	155 MHz	30.4*	41.4*	39.4*
	200 MHz	35.1*	39.8*	37.8*
250 MHz	39.6*	38.3*	36.3*	

The asterisked (\*) value are for information only. The minimum Next coupling loss for any pair combination at room temperature is to be greater than the value determined using the formula:

$$\text{NEXT}(f \text{ MHz}) \geq \text{NEXT}(0.772) - 15 \text{LOG}_{10}(f \text{ MHz}/0.772) \text{ dB}$$

