

## Product Specifications

<b>Product Family</b>	Zybrnet 500
<b>Category</b>	Cat.6
<b>Product</b>	Cat. 6 U/UTP PVC 24AWG (Stranded)
<b>Item no.</b>	ZN500PC121xxxxxM
<b>Edition</b>	1.0



## Approvals

ANSI/TIA-568.2-C.2 ISO/IEC 11801 EN50288-6-2 IEC 603332-1-2

## Compliance

RoHS Compliant. EU Directive 2002/95/EC 

## Applications & Features

- ✔ 9 Colors
- ✔ Certified up to 250MHz
- ✔ 10/100/1000Base-T
- ✔ NVP value 65%

## Product codes by length & color

Length meter	Product code ZN500PC121xxxxxx								
	Grey	Red	Green	Blue	Yellow	Black	Orange	Purple	White
<b>0.5</b>	00005M	10005M	20005M	30005M	40005M	50005M	60005M	70005M	90005M
<b>1.0</b>	00010M	10010M	20010M	30010M	40010M	50010M	60010M	70010M	90010M
<b>1.5</b>	00015M	10015M	20015M	30015M	40015M	50015M	60015M	70015M	90015M
<b>2.0</b>	00020M	10020M	20020M	30020M	40020M	50020M	60020M	70020M	90020M
<b>3.0</b>	00030M	10030M	20030M	30030M	40030M	50030M	60030M	70030M	90030M
<b>5.0</b>	00050M	10050M	20050M	30050M	40050M	50050M	60050M	70050M	90050M
<b>7.5</b>	00075M	10075M	20075M	30075M	40075M	50075M	60075M	70075M	90075M
<b>10.0</b>	00100M	10100M	20100M	30100M	40100M	50100M	60100M	70100M	90100M
<b>15.0</b>	00150M	10150M	20150M	30150M	40150M	50150M	60150M	70150M	90150M
<b>30.0</b>	00300M	10300M	20300M	30300M	40300M	50300M	60300M	70300M	90300M



## Construction & Dimensions

### Conductor

Size  
Material  
Construction

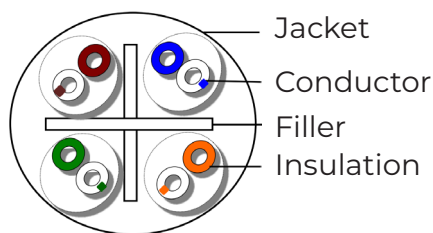
24 AWG X 4P  
Bare Copper Stranded  
7 / 0.18 mm

### Insulation

Material  
Diameter  
Thickness  
Identification

HDPE  
0.88 mm  
0.14 mm  
1. Orange x White / **Orange**  
2. Green x White / **Green**  
3. Blue x White / **Blue**  
4. Brown x White / **Brown**

### Cross section



### Core Assembly

Core twist  
Assembly pair









2 Core twist  
4 Pair assembly

### Jacket

Material  
Thickness  
Overall diameter  
Color  
Length

PVC  
0.60 mm  
5.7 ± 0.2 mm  
Multiple colors - See table Page 1  
Multiple lengths - See table Page 1

## Wire Pinout

RJ 45 Pin	Wire Color	Wire Diagram	Signal
1	White/Orange		Transmit+
2	Orange		Transmit-
3	White/Green		Receive+
4	Blue		Unused
5	White/Blue		Unused
6	Green		Receive-
7	White/Brown		Unused
8	Brown		Unused

**Electrical & Physical properties**

**Operating Voltage**  
**Conductor Resistance**  
**Characteristic impedance**  
**Spark Test**  
**Propagation skew**  
**NVP value**

72 V DC  
 <140  $\Omega$ /km @ 20°C  
 100  $\pm$  15  $\Omega$   
 2.5 KV  
 <45 ns/100m  
 65%

**Installation temperature**  
**Operating temperature**  
**Minimum bending radius**

0°C to 50°C  
 -10°C to 75°C  
 $\geq$  8 times of overall diameter



**Marking** TYPE CM 75°C CAT.6 U/UTP 24AWGX4P PATCH ETL VERIFIED TO ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 & IEC 60332-1-2 WWYY PRESTAQ

Frequency MHz	Delay MAX. ns/100m	R.L. MIN. dB	NEXT MIN. dB/100m	PSNEXT MIN. dB	ELFEXT MIN. dB	PSELFEXT MIN. dB
1.00	570	20.0	74.3	72.3	67.8	64.8
4.00	552	23.0	65.3	63.3	55.8	52.8
8.00	547	24.5	60.8	58.8	49.7	46.7
10.00	545	25.0	59.3	57.3	47.8	44.8
16.00	543	25.0	56.2	54.2	43.7	40.7
20.00	542	25.0	54.8	52.8	41.8	38.8
25.00	541	24.2	53.3	51.3	39.8	36.8
31.25	540	23.3	51.9	49.9	37.9	34.9
62.50	539	20.7	47.4	45.4	31.9	28.9
100.00	538	19.0	44.3	42.3	27.8	24.8
200.00	537	16.4	39.8	37.8	21.8	18.8
250.00	537	15.6	38.3	36.3	19.8	16.8

*Electrical Performance*