

## Product Specification

### STANDARD COMPLIANCES

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

ANSI/TIA-568-C.2 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 / 24AWG                                                                                                                                |
| Insulation                 | Material                  | HDPE                                                                                                                                               |
|                            | Thickness                 | Nominal: 0.221 mm                                                                                                                                  |
|                            | Diameter                  | Nominal: 1.03 mm                                                                                                                                   |
|                            | Colors                    | Blue/White-Blue Orange/White-Orange<br>Green/White-Green Brown/White-Brown                                                                         |
|                            | Unaged Elongation         | Min. 300%                                                                                                                                          |
|                            | Unaged Tensile Strength   | Min. 1.683 Kgf/mm <sup>2</sup>                                                                                                                     |
| Jacket                     | Material                  | LSOH                                                                                                                                               |
|                            | Thickness                 | Nominal: 0.50 mm                                                                                                                                   |
|                            | Diameter                  | Nominal: 6.4 mm                                                                                                                                    |
|                            | Color                     | Assorted upon request                                                                                                                              |
|                            | Unaged Elongation         | Min. 125%                                                                                                                                          |
|                            | Unaged Tensile Strength   | Min. 0.917 Kgf/mm <sup>2</sup>                                                                                                                     |
|                            | Aging at 100°C for 168Hrs | Min. elongation retention:75%<br>Min. tensile strength retention:70%                                                                               |
| Marking                    |                           | CAT.6 UTP LSOH 24AWGX4P PATCH 3P VERIFIED TO<br>ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 &<br>IEC 60332-1-2<br>or as customer request. |
| (PS): " + " Mould separate |                           |                                                                                                                                                    |

### APPROVALS

3P Certified ANSI/TIA-568-C.2 Category 6 Testing Safety/Performance requirements.



## APPLICATIONS

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

550MHz Broadband Video  
Voice, T1, ISDN

## ELECTRICAL PERFORMANCES

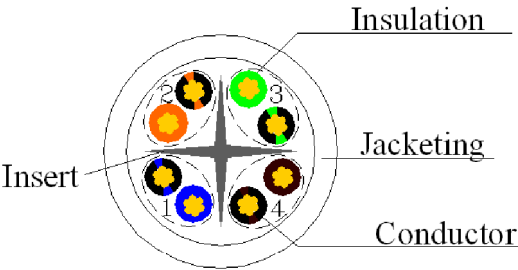
|                                   |           |                         |            |            |
|-----------------------------------|-----------|-------------------------|------------|------------|
| Dielectric Strength of Insulation |           | 2500 V dc / 2 seconds   |            |            |
| Insulation Resistance Test        |           | Min. 5000 MΩ·Km         |            |            |
| Conductor Resistance              |           | Max. 9.38Ω/100m at 20°C |            |            |
| Resistance Unbalance              |           | Max. 2%                 |            |            |
| Capacitance Unbalance             |           | Max. 160 pF/100m        |            |            |
| Mutual Capacitance                |           | Max. 5600 pF/100m       |            |            |
| Impedance                         | 772kHz    | 125Ω ± 20%              |            |            |
|                                   | 1~250MHz  | 100Ω ± 15%              |            |            |
| Attenuation & Near End Cross Talk | Frequency | Max. Attenuation        | NEXT       | PSNEXT     |
|                                   | (MHz)     | (dB/100 meters)         | (dB), Min. | (dB), Min. |
|                                   | 1 MHz     | 2.0*                    | 74.3*      | 72.3*      |
|                                   | 4 MHz     | 3.8*                    | 65.3*      | 63.3*      |
|                                   | 10 MHz    | 6.0*                    | 59.3*      | 57.3*      |
|                                   | 16 MHz    | 7.6*                    | 56.2*      | 54.2*      |
|                                   | 20 MHz    | 8.5*                    | 54.8*      | 52.8*      |
|                                   | 31.25 MHz | 10.7*                   | 51.9*      | 49.9*      |
|                                   | 62.5 MHz  | 15.4*                   | 47.4*      | 45.4*      |
|                                   | 100 MHz   | 19.8*                   | 44.3*      | 42.3*      |
|                                   | 150 MHz   | 24.9*                   | 41.4*      | 39.4*      |
|                                   | 200MHz    | 29.0*                   | 39.8*      | 37.8*      |
|                                   | 250MHz    | 32.8*                   | 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:

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

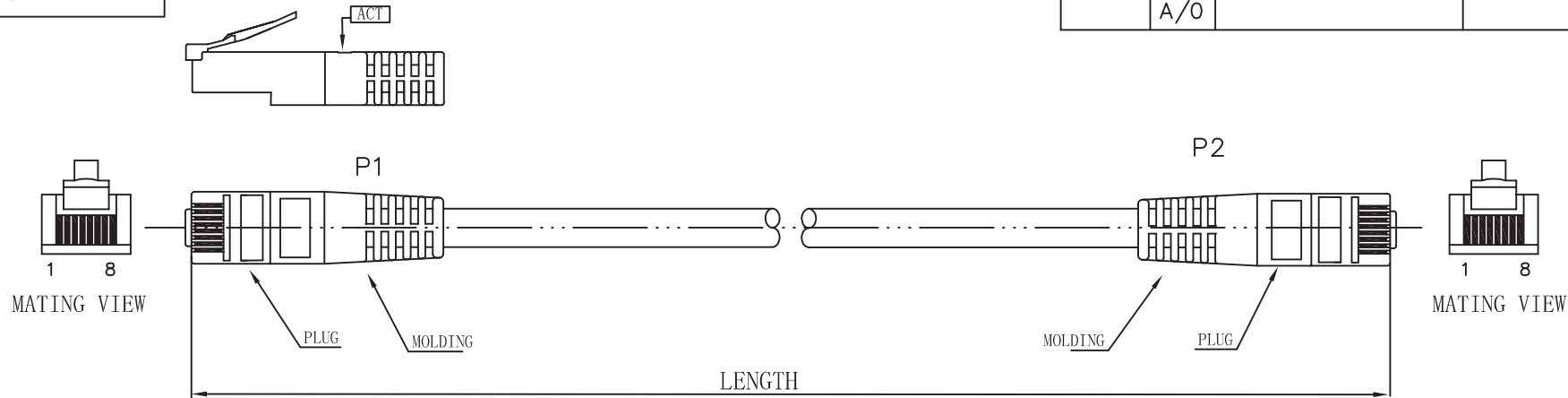
CONFIGURATION

|              |             |
|--------------|-------------|
| orange 2     | green 3     |
| white/orange | white/green |
| blue 1       | brown 4     |
| white/blue   | white/brown |

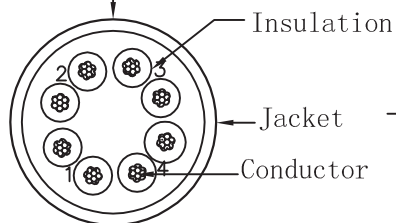


RoHS COMPLIANT

| DATE | REV | DESCRIPTION | BY | CHKD |
|------|-----|-------------|----|------|
|      | A/0 |             |    |      |



MARKING (FP0399) : **ACT CAT.6 UTP LSZH 24AWGX4P PATCH ETL/3P VERIFIED TO ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 & IEC 60332-1-2 LEADFREE EN71 15000.001**



|              |             |
|--------------|-------------|
| orange 2     | green 3     |
| white/orange | white/green |
| blue 1       | brown 4     |
| white/blue   | white/brown |

| NO. | ITEM   | COLOR  | Y     | RAL NO.  |
|-----|--------|--------|-------|----------|
| 1   | IB90XX | GREY   | GY825 | RAL 9002 |
| 2   | IB95XX | RED    | RD210 | RAL 3020 |
| 3   | IB96XX | BLUE   | BU608 | RAL 5019 |
| 4   | IB97XX | GREEN  | GN509 | RAL 6016 |
| 5   | IB98XX | YELLOW | YE406 | RAL 1003 |
| 6   | IB99XX | BLACK  | BK012 | RAL 9011 |

| PINOUT |           |         |           |
|--------|-----------|---------|-----------|
| PA/R   | P1(T568B) | WIRE    | P2(T568B) |
| 2      | 1         | WHT/ORG | 1         |
|        | 2         | ORG     | 2         |
| 3      | 3         | WHT/GRN | 3         |
|        | 6         | GRN     | 6         |
| 1      | 4         | BLU     | 4         |
|        | 5         | WHT/BLU | 5         |
| 4      | 7         | WHT/BRN | 7         |
|        | 8         | BRN     | 8         |

|            |                                                                                    |
|------------|------------------------------------------------------------------------------------|
| Conductor  | Bare Copper<br>24AWG 7/0.196±0.015mm                                               |
| Insulation | Thickness:MIN at any point:0.15mm<br>MAX AVG:0.25mm<br>Diameter: 1.04±0.06mm       |
| Jacket     | LSOH<br>Thickness:MIN at any point:0.55mm<br>MAX AVG:0.60mm<br>Diameter:5.9±0.15mm |

|        |                        |
|--------|------------------------|
| Wire   | CAT.6 UTP STR 24AWG*4P |
| Plug   | YUS-06 8P8C 50U"       |
| Length | xxM                    |

Unless specified on the drawing, tolerances are per the follows:

.X ± 1  
.XX ± 0.2  
.XX ± 0.05

3RD



**ACT**

|               |         |         |        |      |            |
|---------------|---------|---------|--------|------|------------|
| DRAW. NO      | CW-0284 | ITEM    |        |      |            |
| CUSTOMER NAME | NETIFO  | DRAW    | DHY    | DATE | 2011/10/21 |
| SCALE         |         | CHECKER | wuxiao | DATE | 2011/10/21 |
| UNIT          | MM      | SHEET   | 1      | OF   | 1          |