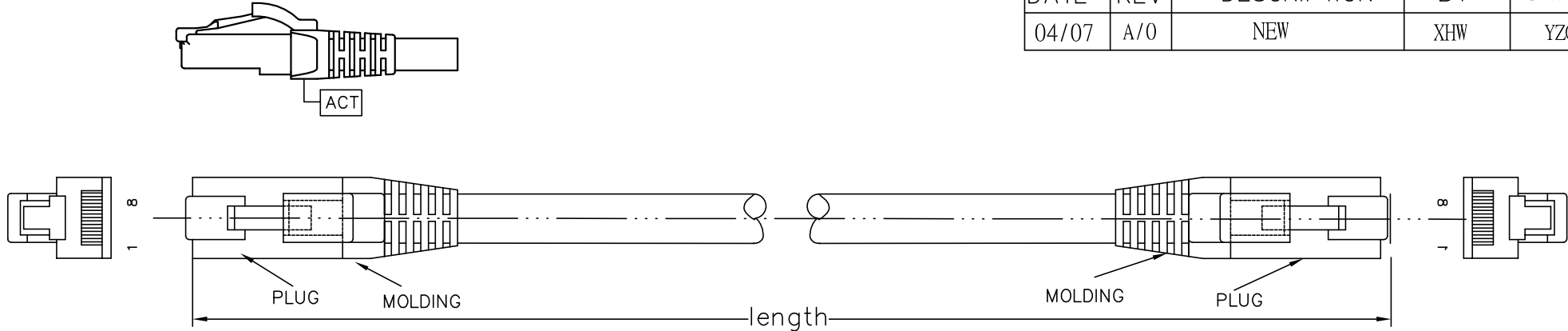
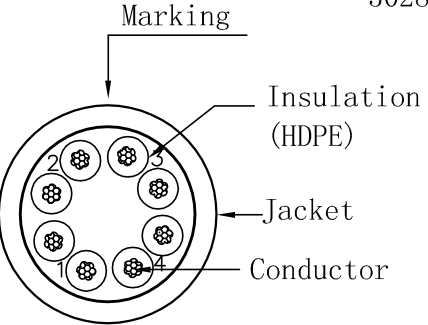


| DATE  | REV | DESCRIPTION | BY  | CHKD |
|-------|-----|-------------|-----|------|
| 04/07 | A/0 | NEW         | XHW | YZG  |



Marking:ACT CAT.6 UTP PATCH ETL/3P VERIFIED TO ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 & IEC 60332-1-2 24AWGX4P CM(UL) c(UL) E164469-XX LEADFREE EN71 15000.001



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

| ITEM<br>Length | Color | IV     | GY     | RD     | BU     | GN     | YL     | BK     | OR     | BN     | PL     | PK     |
|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.5M           |       | IS8400 | IS8000 | IS8500 | IS8600 | IS8700 | IS8800 | IS8900 | IS1500 | IS1600 | IS1700 | IS1800 |
| 1.0M           |       | IS8401 | IS8001 | IS8501 | IS8601 | IS8701 | IS8801 | IS8901 | IS1501 | IS1601 | IS1701 | IS1801 |
| 1.5M           |       | IS8451 | IS8051 | IS8551 | IS8651 | IS8751 | IS8851 | IS8951 | IS1551 | IS1651 | IS1751 | IS1851 |
| 2.0M           |       | IS8402 | IS8002 | IS8502 | IS8602 | IS8702 | IS8802 | IS8902 | IS1502 | IS1602 | IS1702 | IS1802 |
| 3.0M           |       | IS8403 | IS8003 | IS8503 | IS8603 | IS8703 | IS8803 | IS8903 | IS1503 | IS1603 | IS1703 | IS1803 |
| 5.0M           |       | IS8405 | IS8005 | IS8505 | IS8605 | IS8705 | IS8805 | IS8905 | IS1505 | IS1605 | IS1705 | IS1805 |
| 7.0M           |       | IS8407 | IS8007 | IS8507 | IS8607 | IS8707 | IS8807 | IS8907 | IS1507 | IS1607 | IS1707 | IS1807 |
| 10.0M          |       | IS8410 | IS8010 | IS8510 | IS8610 | IS8710 | IS8810 | IS8910 | IS1510 | IS1610 | IS1710 | IS1810 |
| 15.0M          |       | IS8415 | IS8015 | IS8515 | IS8615 | IS8715 | IS8815 | IS8915 | IS1515 | IS1615 | IS1715 | IS1815 |
| 20.0M          |       | IS8420 | IS8020 | IS8520 | IS8620 | IS8720 | IS8820 | IS8920 | IS1520 | IS1620 | IS1720 | IS1820 |

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

|            |     |                                                                             |
|------------|-----|-----------------------------------------------------------------------------|
| Conductor  |     | Bare Copper 24AWG                                                           |
| Insulation |     | Thickness:MIN at any point:0.15mm<br>MAX AVG:0.25mm<br>Diameter:1.03±0.06mm |
| Jacket     | PVC | Thickness:MIN at any point:0.46mm<br>MAX AVG:0.54mm<br>Diameter:5.9±0.15mm  |
| WIRE       |     | CAT.6 UTP STR 24AWG*4P                                                      |
| PLUG       |     | YU-28 8P8C 50U"                                                             |
| Length     |     | XXM                                                                         |
| WIRE COLOR |     | XX                                                                          |

|                                                                  |        |
|------------------------------------------------------------------|--------|
| Unless specified on the drawing, tolerances are per the follows: |        |
| .                                                                | ± 1    |
| .X                                                               | ± 0.2  |
| .XX                                                              | ± 0.05 |
| 3RD                                                              |        |

|                                                                                       |       |          |                        |      |            |
|---------------------------------------------------------------------------------------|-------|----------|------------------------|------|------------|
|  |       |          |                        |      |            |
| DRAW.NO                                                                               | 00704 | ITEM     | CAT.6 UTP STR 24AWG*4P |      |            |
| DEPARTMENT                                                                            | R&D   | DRAW     | XHW                    | DATE | 2010/04/07 |
| SCALE                                                                                 |       | CHECKER  | YZG                    | DATE | 2010/04/07 |
| UNIT                                                                                  | MM    | APPROVAL |                        | DATE |            |

## 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: 0.20mm                                                                                                                                                     |
|                            | Diameter                  | Nominal: 1.0 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                  | Flame Retardant PVC                                                                                                                                                 |
|                            | Thickness                 | Nominal: 0.50 mm                                                                                                                                                    |
|                            | Diameter                  | Nominal: 6.4 mm                                                                                                                                                     |
|                            | Color                     | Assorted upon request                                                                                                                                               |
|                            | Unaged Elongation         | Min. 100%                                                                                                                                                           |
|                            | Unaged Tensile Strength   | Min. 1.407 Kgf/mm <sup>2</sup>                                                                                                                                      |
|                            | Aging at 100°C for 168Hrs | Min. elongation retention:50%<br>Min. tensile strength retention:75%                                                                                                |
| Marking                    |                           | CAT.6 UTP PATCH ETL/3P VERIFIED TO ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 & IEC 60332-1-2 24AWGX4P CM(UL) c(UL) E164469-XX<br>or as customer request. |
| (PS): " + " Mould separate |                           |                                                                                                                                                                     |

### APPROVALS

UL/cUL Listed

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



Intertek

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. 9.38 Ω/100m at 20℃ |            |            |
| 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 |

