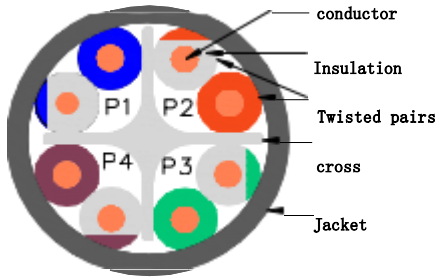
恒宏光电子
HIPHOTONICS

# SPECIFICATION

Customer:

PRODUCT SPECIFICATION: #24 7/0.18x4P UTP6 LAN CABLE

## Cross Section




## Marking

Jacket Marking: /

24AWG 4PR TIA/EIA 568-C.2 CAT.6
UTP PATCH CABLE

## Construcetion

| | |
|---|---|
| Conductor | Bare Copper |
| 4 Twisted Pair | 8C |
| AWG | 24 |
| Construction (±0.01MM) | 7/0.18 |
| Standard Dia. (MM) | 0.172 |
| Insulation | HD-PE |
| Nom. Thickness (±0.02MM) | 0.18 |
| Insulation Dia. (±0.05MM) | 0.86 |
| Sepaiaior | PE Cross |
| Shield/Braid | / |
| Overlap(%) | / |
| Darin wire | / |
| Jacket | pvc |
| Nom. Thickness (±0.05MM) | 0.55 |
| Outer Dia. ( ±0.2MM) | 5.9 |

## Color

Insulation
Cores:Pairs
P1:Blue & White P2:Orange & White
P3:Green & White P4:Brown & White
Jacket

benging test
MAX. pulling

## Perfomance

ELECTRICAL CHARACTERISTICS(20℃)

MAX. CONDUCTOR DC RESISTANCE ( /KM) #24:89

MIN. INSULATION RESISTANCE ( /KM) PE:100M

DIELECTRIC STRENGTH AC-500V/1 MIN NO BREAKDOWN

D-C RESISTANCE UNBALANCE:MAX 2%

PAIR-TO-GROUND CAPACITANCE UNBALANCE:MAX. 330PF/100M

INPUT IMPEDANCE: 4-100MHz 100+/-15ohm
100-250MHz 100+/-22ohm

MEAN CHARATRERISTIC IMPEDANCE@100MHZ: 100+/-5 OHMS

NOMINALE VELOCITY OF PROPAGETION(NVP) 68+/-2%

PROPAGATION DELAY @ 100MHZ ≧537.6 ns/100M

PROPAGATION DELAY SKEW:MAX. ≧45ns/100M

PREQUENCY RANGE MINIMUN REQUIREMENTS(EQUATIONS)

INSERTION LOSS 4-250MHZ IEC60332-1:EQUATION(2).CONSTANT VALUES SEE TABLE 4 CAT.6

RETURN LOSS 4-250MHZ IEC60332-1:SEE TABLE 10

INPUT IMPEDANCE 4-250MHZ IEC60332-1:SEE TABLE 10

NEXT 4-250MHZ IEC60332-1:EQUATION(6),CONSTANT VALUES SEE TABLE 6 CAT.6

PS NEXT 4-250MHZ IEC60332-1:EQUATION(5),CONSTANT VALUES SEE TABLE 6 CAT.6

ELFEXT 4-250MHZ IEC60332-1:EQUATION(7),CONSTANT VALUES SEE TABLE 6 CAT.6

PS ELFEXT 4-250MHZ IEC60332-1:EQUATION(7),CONSTANT VALUES SEE TABLE 6 CAT.6

| | | | | |
|---|---|---|---|---|
| Physical Properties | Insulation | Tens strength (before aging) | $Kgf/mm^2$ | >1.68 |
| | | Tens strength (after aging) | $Kgf/mm^2$ | |
| | | Elongation (before aging) | % | >300% |
| | | Elongation (after aging) | % | |
| | Jacket | Tens strength (before aging) | $Kgf/mm^2$ | >1.41 |
| | | Tens strength (after aging) | $Kgf/mm^2$ | |
| | | Elongation (before aging) | % | >100% |
| | | Elongation (after aging) | % | |
| Conductor Resistance | | | Ω/km 20℃ | <93.8 |
| Insulation shrinkback | | | | 121℃x1hr |
| Insulation cold bend | | | | -20℃x4hr |
| Jacket cold bend | | | | -20℃x4hr |

Designed By: Approved By:
Date: Date:



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