weltron®

# SPECIFICATION FOR APPROVAL

| | |
|---|---|
| DOCUMENT： | T2404L6P-XX |
| STYLE： | 75℃ 300V<br>COMMUNICATION CABLE |
| SIZE: | UTP 23AWG X4P (SOLID)<br>CAT 6E CMP |
| RECOGNIZED: | UL、ETL |

All Material According To SS-00259

# Weltron®

## SPECIFICATION

| | | |
|---|---|---|
| STYLE | 75℃ 300V<br>COMMUNICATION CABLE | DOCUMENT NO：<br>TUP2304I |
| SIZE | UTP 23AWG×4P | ESTABLISHED DATE：<br>Dec./16/2013 |

STANDARD ： UL444 & ISO/IEC 11801 & TIA-568-C.2 CAT 6；2002/95/EC(RoHS)

APPLICATION：ULTRA HIGH PERFORMANCE LAN CABLE ARE SUITABLE FOR PERFECT AUDIO DATA AND VIDEO OF TRANSFER FOR HORIZONTAL NETWORK

CONSTRUCTION：

| | | | |
|---|---|---|---|
| CONDUCTOR | SIZE | | 23AWG |
| | CONSTRUCTION | | SOLID BARE COPPER |
| | AVG. THICK. | FRPP | 0.098 mm |
| | | FEP | 0.100 mm |
| | DIAMETER | | 0.95 ± 0.020 mm[ORANGE 、BROWN] |
| | AVG. THICK. | FEP | 0.193 mm |
| | DIAMETER | | 0.94 ± 0.020 mm[BLUE 、GREEN] |
| INSULATION | COLOR CODES | | 1.BLUE × WHITE/BLUE STRIPE<br>2.ORANGE × WHITE/ORANGE STRIPE<br>3.GREEN × WHITE/GREEN STRIPE<br>4.BROWN × WHITE/BROWN STRIPE |
| TWISTED | PAIR STRANDED | | 2 CORES STRANDED |
| | FILLER(SPLINE) | | PLENUM-RATED POLYMER |
| | ASSEMBLY STRANDED | | 4 PAIR STRANDED |
| JACKETED | AVG. THICK. | | 0.38 mm |
| | MIN. THICK. | | 0.35 mm |
| | DIAMETER | | 5.70 ± 0.20 mm |
| | MATERIAL | | FR PVC(LOW SMOKE) |
| | COLOR | | GRAY OR OTHER COLOR |
| | RIP CORD | | ☑ YES ☐ NO |
| PACKAGING | ☑ Weltron® Pull Box | | |

AK001/210×297/1.0

EDITION：1.0 REVISED DATE：

MAKER：H. C. KUO CONFIRM：C. Y. Chen APPROVAL：W. J. Wang

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## SPECIFICATION

| ELECTRICAL & PHYSICAL PROPERTIES： | | | |
|---|---|---|---|
| ITEM | | | 23AWG × 4P |
| RATING TEMP. VOLTAGE | | | 75℃ 300V |
| CONDUCTOR RESISTANCE | | | 9.38 OHM/100m/20℃ MAX. |
| MUTUAL CAPACITANCE | | | 56 pF/M MAX. |
| DIELECTRIC STRENGTH | | | AC 1.5 KV/2 SEC. |
| SPARK TEST | | | 2.5 KV |
| INSULATION [FRPP] | UNAGED | TENSILE STRENGTH | 1200 PSI MIN. (0.85 KG/m ㎡) |
| | | ELONGATION | 100% MIN. |
| | AGED | TENSILE STRENGTH | UNAGED MIN. 75%(100℃×48HRS) |
| | | ELONGATION | UNAGED MIN. 75%(100℃×48HRS) |
| INSULATION [FEP] | UNAGED | TENSILE STRENGTH | 2500 PSI MIN. (1.76 KG/m ㎡) |
| | | ELONGATION | 200% MIN. |
| | AGED | TENSILE STRENGTH | UNAGED MIN. 75%(232℃×168HRS) |
| | | ELONGATION | UNAGED MIN. 75%(232℃×168HRS) |
| JACKETED | UNAGED | TENSILE STRENGTH | 2500 PSI MIN.(1.76 Kg/m ㎡) |
| | | ELONGATION | 100% MIN. |
| | AGED | TENSILE STRENGTH | UNAGED MIN. 85%(100℃×240HRS) |
| | | ELONGATION | UNAGED MIN. 50%(100℃×240HRS) |
| INSULATION SHRINKBACK | | | 150m/m, 121℃±1℃×1HR≦9.5m/m |
| COLD BEND TEST | | | -20℃×4HRS NO CRACK |
| FLAME RETARDANT TEST | | | CMP |
| AC LEAKAGE CURRENT THROUGH OVERALL JACKET | | | AC 1500V≦10 mA |
| DC RESISTANCE UNBALANCE | | | 5% MAX. |
| PAIR-TO-GROUND CAPACITANCE UNBALANCE | | | 330 pF/100m MAX. |
| PROPAGATION DELAY | | | 600 MHz 535.5nS/100m MAX. |
| DELAY SKEW | | | 1 ~ 600 MHz 45nS/100m MAX. |
| MARKING：<br>WELTRON CAT 6E GIGASYSTEM TESTED TO 600MHz---E465248-001 UTP 4PR 23AWG 75℃ (UL) CMP---ETL VERIFIED TO TIA-568-C.2 MMYY RoHS COMPLIANT XXXXFT | | | |

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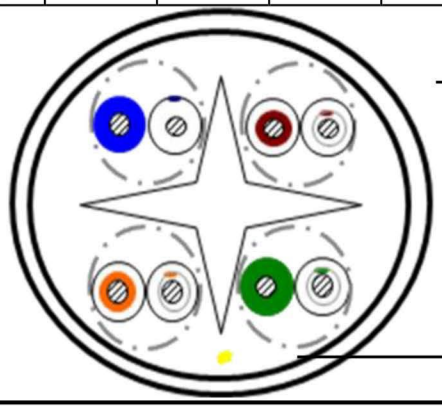
# SPECIFICATION

## Electrical performance

| ITEM(dB) / Frequency (MHz) | IL MAX. (dB/100m) | NEXT MIN. (dB) | ACR MIN. (dB) | PS. NEXT MIN. (dB) | PS. ACR MIN. (dB) | ACRF MIN. (dB)/100m) | PS. ACRF MIN. (dB/100m) | R.L. MIN. (dB) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2.0 | 76.3 | 74.3 | 74.3 | 72.3 | 67.8 | 64.8 | 20.0 |
| 4 | 3.8 | 67.3 | 63.5 | 65.3 | 61.5 | 55.7 | 52.7 | 23.0 |
| 8 | 5.3 | 62.8 | 57.5 | 60.8 | 55.5 | 49.7 | 46.7 | 24.5 |
| 10 | 6.0 | 61.3 | 55.3 | 59.3 | 53.3 | 47.8 | 44.8 | 25.0 |
| 16 | 7.6 | 58.3 | 50.7 | 56.3 | 48.7 | 43.7 | 40.7 | 25.0 |
| 20 | 8.5 | 56.8 | 48.3 | 54.8 | 46.3 | 41.7 | 38.7 | 25.0 |
| 25 | 9.5 | 55.3 | 45.8 | 53.3 | 43.8 | 39.8 | 36.8 | 24.3 |
| 31.25 | 10.7 | 53.9 | 43.2 | 51.9 | 41.2 | 37.9 | 34.9 | 23.6 |
| 62.5 | 15.4 | 49.4 | 34.0 | 47.4 | 32.0 | 31.8 | 28.8 | 21.5 |
| 100 | 19.8 | 46.3 | 26.5 | 44.3 | 24.5 | 27.8 | 24.8 | 20.1 |
| 155 | 25.1 | 43.5 | 18.4 | 41.5 | 16.4 | 23.9 | 20.9 | 18.8 |
| 200 | 29.0 | 41.8 | 12.8 | 39.8 | 10.8 | 21.7 | 18.7 | 18.0 |
| 250 | 32.8 | 40.3 | 7.5 | 38.3 | 5.5 | 19.8 | 16.8 | 17.3 |
| 300 | 36.4 | 39.2 | 2.8 | 37.2 | 0.8 | 18.2 | 15.2 | 16.8 |
| 400 | 43.0 | 37.3 | NA | 35.3 | NA | 15.7 | 12.7 | 15.9 |
| 550 | 51.8 | 35.2 | NA | 33.2 | NA | 12.9 | 9.9 | 14.9 |
| 600 | 54.5 | 34.6 | NA | 32.6 | NA | 12.2 | 9.2 | 14.7 |