

# COPPER CABLE

## U/UTP CAT 6 EC VERIFIED – SOLID CONDUCTOR

This cable is compliant to ANSI/TIA-568-C-2, ISO/IEC 11801 and EN 50173

U-UTP CAT6

### CONSTRUCTION

|                  |   |
|------------------|---|
| CONDUCTOR        | 24 AWG solid bare copper.   |
| INSULATION       | Polyolefin.   |
| PAIRS            | 4 Twisted pairs.  |
| PAIR COLOUR CODE | Blue/White-Blue, Orange/White-Orange, Green/White-Green, Brown/White-Brown.   |
| SHEATH           | PVC. Also available on request:<br>1) Low Smoke Zero Halogen (LSZH).    2) UV Resistant PVC (Black only – without sheath markings). |

### ELECTRICAL CHARACTERISTICS STANDARD FOR CATEGORY 6

| FREQUENCY<br>MHZ | ATTENUATION<br>dB/100m | NEXT<br>dB | PSNEXT<br>dB | ACR  | PSACR | ELFEXT<br>dB | PSELFEXT<br>dB | RETURN<br>LOSS |
|------------------|------------------------|------------|--------------|------|-------|--------------|----------------|----------------|
| 1                | 2.0                    | 74.3       | 72.3         | 72.3 | 70.3  | 67.8         | 64.8           | 20.0           |
| 4                | 3.8                    | 65.3       | 63.3         | 61.5 | 59.5  | 55.8         | 52.8           | 23.0           |
| 8                | 5.3                    | 60.8       | 58.8         | 55.4 | 53.4  | 49.7         | 46.7           | 24.5           |
| 10               | 6.0                    | 59.3       | 57.3         | 53.3 | 51.3  | 47.8         | 44.8           | 25.0           |
| 16               | 7.6                    | 56.2       | 54.2         | 48.6 | 46.7  | 43.7         | 40.7           | 25.0           |
| 20               | 8.5                    | 54.8       | 52.8         | 46.3 | 44.3  | 41.8         | 38.8           | 25.0           |
| 25               | 9.5                    | 53.3       | 51.3         | 43.8 | 41.8  | 39.8         | 36.8           | 24.3           |
| 31.25            | 10.7                   | 51.9       | 49.9         | 41.1 | 39.2  | 37.9         | 34.9           | 23.6           |
| 62.5             | 15.4                   | 47.4       | 45.4         | 32   | 30    | 31.9         | 28.9           | 21.5           |
| 100              | 19.8                   | 44.3       | 42.3         | 24.5 | 22.5  | 27.8         | 24.8           | 20.1           |
| 200              | 29.0                   | 39.8       | 37.8         | 10.8 | 8.8   | 21.8         | 18.8           | 18.0           |
| 250              | 32.8                   | 38.3       | 36.3         | 5.5  | 3.5   | 19.8         | 16.8           | 17.3           |

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### ELECTRICAL CHARACTERISTICS @ 20°C

| DC RESISTANCE    | RESISTANCE UNBALANCE | MUTUAL CAPACITANCE @ 1 kHz | CAPACITANCE UNBALANCE | DELAY SKEW        | VELOCITY OF PROPAGATION | CHARACTERISTIC IMPEDANCE       |
|------------------|----------------------|----------------------------|-----------------------|-------------------|-------------------------|--------------------------------|
| 80 Ohms/km (Max) | 2% (Max)             | 42 nF/km (Max)             | 1000 pF/km (Max)      | 450 nsec/km (Max) | 0.68 c                  | 100 Ohms ±15% @ 1.0 Mhz-100Mhz |

### PHYSICAL PROPERTIES & PACKING

| FIRE SAFETY RATING | OUTSIDE DIAMETER (NOM) | WEIGHT (kg/km) | TEMPERATURE RANGE   | STANDARD PACKAGING                                       |
|--------------------|------------------------|----------------|---|--|
| IEC 60332 Part 1   | 6.3mm                  | 52.5           | 0°C to +50°C (Installation)<br>-20°C to +70°C (Operational) | 305m Easy Pull Box (16kg/box)<br>(400mm x 400mm x 210mm) |

