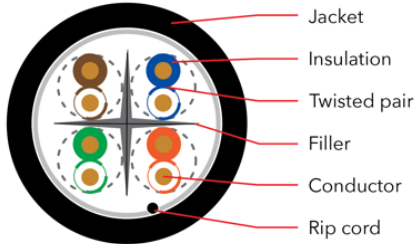


# CAT 6 600MHz UTP RISER (CMR) 23/4 UNSHIELDED FT4 Cable

## Cable Detail



## Applicable Standards

- C(ETL) listed FT4 CMR
- C(ETL)US Verified to TIA-568-C.2
- RoHS Compliant



## Physical Characteristics

|                        |                           |
|------------------------|---------------------------|
| Conductor Material     | Solid Bare Copper         |
| Number of Conductors   | 4                         |
| AWG                    | 23 AWG                    |
| Stranding              | Solid                     |
| Insulation Material    | HDPE                      |
| Overall Diameter       | 0.040 in. $\pm$ 0.0002 in |
| Average Thickness      | 0.0088 in                 |
| Jacket Material        | Flame Retardant PVC       |
| Average Wall Thickness | 0.023 in.                 |
| Nominal Outer Diameter | 0.244 in. $\pm$ 0.008 in. |
| Nominal Weight         | 26 lbs.                   |
| Shielding (Y/N)        | No                        |
| Ripcord (Y/N)          | Yes                       |
| Separator (Y/N)        | Yes                       |

## Mechanical Characteristics

|                   |              |                      |
|-------------------|--------------|----------------------|
| Temperature Range | Installation | 0°C to + 75°C        |
|                   | Operating    | -20°C to + 75°C      |
| Tensile Strength  | Before       | $\geq$ 13.8 Mpa      |
| Elongation        | Aging        | $\geq$ 100%          |
| Aging Condition   |              | 100°C x 168 hours    |
|                   | After        | $\geq$ 85% of unaged |
|                   | Aging        | $\geq$ 50% of unaged |

## Insulation Colors

|        |                |        |
|--------|----------------|--------|
| Pair 1 | White / Blue   | Blue   |
| Pair 2 | White / Orange | Orange |
| Pair 3 | White / Green  | Green  |
| Pair 4 | White / Brown  | Brown  |

## Electrical Characteristics

|                                       |                                  |
|---------------------------------------|----------------------------------|
| DC Resistance                         | 9.38 $\Omega$ / 100m Max. @ 20°C |
| Resistance Unbalanced                 | 5% Max. @ 20°C                   |
| Capacitance Unbalance                 | 330 pF / 100m Max. @ 20°C        |
| Mutual Capacitance                    | 5.6 nF / 100m Max. @ 20°C        |
| Delay Skew                            | 45 nS / 100m Max. @ 20°C         |
| Nominal Velocity of Propagation (NVP) | 67%                              |

## Electrical Performance

| Frequency (MHz) | Attenuation (dB/100m) Max. | Return loss (dB) Min. | NEXT (dB) Min. | PS-NEXT (dB) Min. |
|-----------------|----------------------------|-----------------------|----------------|-------------------|
| 1               | 2.0                        | 20.0                  | 77.3           | 75.3              |
| 4               | 3.8                        | 23.6                  | 68.3           | 66.3              |
| 8               | 5.3                        | 25.4                  | 63.8           | 61.8              |
| 10              | 5.9                        | 26.0                  | 62.3           | 30.3              |
| 16              | 7.4                        | 26.0                  | 59.3           | 57.3              |
| 20              | 8.3                        | 26.0                  | 57.8           | 55.8              |
| 25              | 9.3                        | 25.5                  | 56.3           | 54.3              |
| 31.25           | 10.4                       | 25.0                  | 54.9           | 52.9              |
| 62.5            | 14.9                       | 23.5                  | 50.4           | 48.4              |
| 100             | 19.0                       | 22.5                  | 47.3           | 45.3              |
| 155             | 23.9                       | 21.6                  | 45.8           | 43.5              |
| 200             | 27.4                       | 21.0                  | 42.8           | 40.8              |
| 250             | 30.8                       | 20.5                  | 41.3           | 39.3              |
| 300             | 34.0                       | 20.1                  | 40.2           | 38.2              |
| 350             | 37.0                       | 19.8                  | 39.2           | 37.2              |
| 400             | 39.7                       | 19.5                  | 38.3           | 36.3              |
| 450             | 42.1                       | 19.2                  | 37.5           | 35.5              |
| 500             | 44.9                       | 19.0                  | 36.8           | 34.8              |
| 550             | 47.3                       | 18.6                  | 36.2           | 34.2              |
| 600             | 54.5                       | 18.8                  | 37.6           | 35.6              |
| Frequency (MHz) | ELFEXT (dB/100m) Min.      | PS-ELFEXT (dB) Min.   | ACR (dB) Min.  | PS-ACR (dB) Min.  |
| 1               | 70.8                       | 67.8                  | 75.0           | 73.0              |
| 4               | 58.7                       | 55.7                  | 64.0           | 62.0              |
| 8               | 52.7                       | 49.7                  | 57.7           | 55.7              |
| 10              | 50.8                       | 47.8                  | 55.6           | 53.6              |
| 16              | 46.7                       | 43.7                  | 50.7           | 48.7              |
| 20              | 44.7                       | 41.7                  | 48.2           | 16.2              |
| 25              | 42.8                       | 39.8                  | 45.6           | 13.6              |
| 31.25           | 40.9                       | 37.9                  | 42.8           | 40.8              |
| 62.5            | 34.8                       | 31.8                  | 32.9           | 30.9              |
| 100             | 30.8                       | 27.8                  | 24.9           | 22.9              |
| 155             | 27.0                       | 23.6                  | 21.0           | 21.5              |
| 200             | 24.7                       | 21.7                  | 18.4           | 16.4              |
| 250             | 22.8                       | 19.8                  | 13.5           | 11.5              |
| 300             | 21.2                       | 18.2                  | 9.6            | 5.0               |
| 350             | 19.9                       | 16.9                  | 5.2            | 3.2               |
| 400             | 18.7                       | 15.7                  | 1.5            | -                 |
| 450             | 17.7                       | 14.7                  | -              | -                 |
| 500             | 16.8                       | 13.8                  | -              | -                 |
| 550             | 15.9                       | 12.9                  | -              | -                 |
| 600             | 15.9                       | 12.9                  | 17.2           | 14.2              |

\* Values above 250MHz are information only.

## Cable Marking

XXXXXX CATEGORY 6 600MHZ 23AWG 4PR UTP CMR 75C FT4 C(ETL)US  
VERIFIED (ETL) ANSI/TIA-568-C.2 \*\*\*\*\*FT

