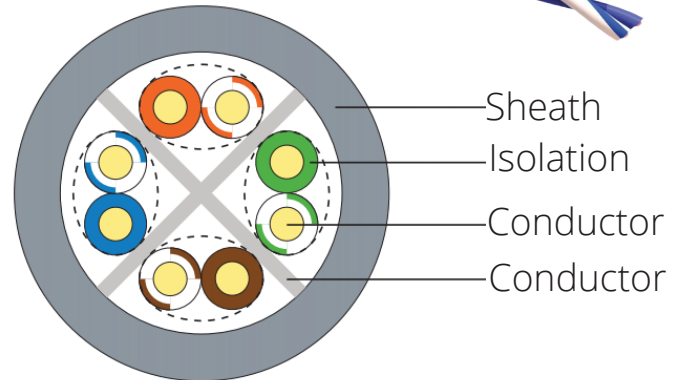


# Category 6 U/UTP 23AWG 350MHz LSZH Data Cable | Dca



Category 6 class cables are designed for analog and digital signal transmission in voice, video and data applications in supported data communication systems up to 250 MHz. Cables meet the requirements of structural cabling standards including ANSI EIA/TIA 568, ISO/IEC 11801 and EN 50173 Class E. Foam-skin insulation technology is used on the pairs.



## Compliant Standards

|                                    |
|------------------------------------|
| ANSI TIA/EIA 568.2-D               |
| ISO/IEC 11801 2nd ed., IEC 61156-5 |
| EN 50173-1, EN 50288-6-1           |

## Applications

|                                             |
|---------------------------------------------|
| IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T |
| IEEE 802.5 16 MB; ISDN; TPDDI; ATM          |
| Power over Ethernet (PoE) / PoE+            |

## EU Declaration

|                            |                           |                 |
|----------------------------|---------------------------|-----------------|
| LVD: Low Voltage Directive |                           | 2014/35/EU      |
| RoHS                       | Restriction of Hazardous: | 2011/65/<br>EU: |
|                            | Substances Directive      |                 |



## Flame Resistance

|                   |                   |                 |
|-------------------|-------------------|-----------------|
| Flame Performance | Flame Retardancy  | EN 60332-1-2    |
|                   | Smoke Performance | EN 61034-2      |
|                   | Halogen Acidity   | EN 60754-1/2    |
| Euro-class        | Dca - s2, d2, a1  | EN 13501-6:2018 |

## Cable Construction

|                      |                                            |
|----------------------|--------------------------------------------|
| Conductor            | Bare copper wire 23 AWG                    |
| Insulation           | Polyolefin                                 |
| Outer cable diameter | 6.0 mm                                     |
| App. Cable Weight    | 40 kg/km                                   |
| Outer Sheath         | LSZH - Low Smoke Zero Halogen              |
| Color (standard)     | Grey RAL 7001, Blue RAL 5015, Red RAL 3017 |

### Mechanical Properties

|                     |               |                    |
|---------------------|---------------|--------------------|
| Min. Bending Radius | Installation: | 8 x D              |
|                     | Operation     | 4 x D              |
| Temperature Range   | Installation: | 0°C up to + 50°C   |
|                     | Operation:    | -20°C up to + 60°C |
| Tensile Strength    | 100 N         | max.               |
| Crush Resistance    | 1000 N/dm     | min.               |
| Impact Resistance   | 10 Impact     |                    |

### Electrical Properties

|                                 |             |           |
|---------------------------------|-------------|-----------|
| Conductor Resistance            | 85.0 Ω/km   | max.      |
| Resistance Unbalance            | 2%          | max.      |
| Insulation Resistance           | 5000 MΩ x m | min       |
| Capacity                        | 50 pF/m     | nom.      |
| Capacity Unbalance              | 1600 pF/km  | max.      |
| Characteristic Impedance        | 100±5 Ohm   | @ 100 MHz |
| Nominal Velocity of Propagation | 67-69%      |           |
| Propagation Delay               | 537 ns/100m | max.      |
| Delay Skew                      | 45 ns/100m  | max.      |
| Test Voltage                    | 1000 V      |           |

### Transmission Properties

| Frequency<br>(MHz) | Attenuation<br>(dB/100m) |      | NEXT<br>(dB) |       | PS-NEXT<br>(dB) |       | ACR<br>(dB/100m) |       | PS-ACR<br>(dB/100m) |       | ACR-F<br>(dB/100m) |       | PS-ACR-F<br>(dB/100m) |       | Return Loss<br>(dB) |       |
|--------------------|--------------------------|------|--------------|-------|-----------------|-------|------------------|-------|---------------------|-------|--------------------|-------|-----------------------|-------|---------------------|-------|
|                    | max..                    | nom. | min.         | nom.. | min.            | nom.. | min.             | nom.. | min.                | nom.. | min.               | nom.. | min.                  | nom.. | min.                | nom.. |
| 1.00               | 2.1                      | 1.9  | 66.0         | 82.0  | 64.0            | 79.0  | 63.9             | 80.0  | 61.9                | 77.0  | 66.0               | 85.0  | 64.0                  | 82.0  | 20.0                | 26.0  |
| 4.00               | 3.8                      | 3.8  | 65.3         | 76.0  | 63.3            | 73.0  | 61.4             | 72.0  | 59.4                | 69.0  | 58.0               | 77.0  | 55.0                  | 74.0  | 23.0                | 31.0  |
| 10.00              | 6.0                      | 5.9  | 59.3         | 70.0  | 57.3            | 67.0  | 53.3             | 64.0  | 51.3                | 61.0  | 50.0               | 68.0  | 47.0                  | 64.0  | 25.0                | 32.0  |
| 16.00              | 7.6                      | 7.4  | 56.2         | 65.0  | 54.2            | 62.0  | 48.6             | 58.0  | 46.6                | 55.0  | 45.9               | 63.0  | 42.9                  | 60.0  | 25.0                | 34.0  |
| 31.25              | 10.7                     | 10.5 | 51.9         | 60.0  | 49.9            | 57.0  | 41.1             | 49.0  | 39.1                | 46.0  | 40.1               | 51.0  | 37.1                  | 48.0  | 23.6                | 36.0  |
| 62.50              | 15.5                     | 15.1 | 47.4         | 58.0  | 45.4            | 55.0  | 31.9             | 43.0  | 29.9                | 40.0  | 34.1               | 44.0  | 31.1                  | 41.0  | 21.5                | 32.0  |
| 100.00             | 19.9                     | 19.0 | 44.3         | 52.0  | 42.3            | 49.0  | 24.4             | 33.0  | 22.4                | 30.0  | 30.0               | 35.0  | 27.0                  | 32.0  | 20.1                | 32.0  |
| 250.00             | 33.0                     | 31.0 | 38.3         | 48.0  | 36.3            | 45.0  | 5.3              | 17.0  | 3.3                 | 14.0  | 22.0               | 19.0  | 19.0                  | 16.0  | 17.3                | 30.0  |
| 300.00             | -                        | 36.0 | -            | 43.0  | -               | 40.0  | -                | 13.0  | -                   | 10.0  | -                  | 14.0  | -                     | 11.0  | -                   | 28.0  |
| 400.00             | -                        | 41.6 | -            | 40.0  | -               | 37.0  | -                | 8.0   | -                   | 5.0   | -                  | 8.0   | -                     | 5.0   | -                   | 26.0  |