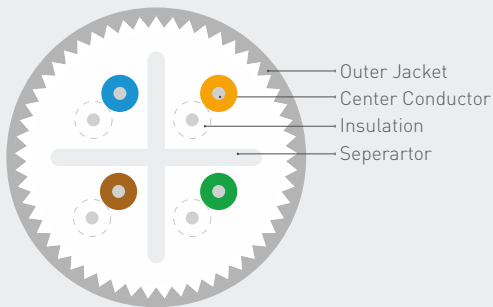
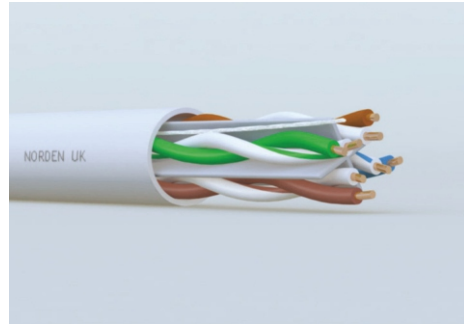


# CATEGORY 6A U/UTP 23 AWG 4 PAIR CABLE

Norden Category 6A U/UTP cables exceed Category 6A/Class EA specification. It is tested to 500MHz frequency range and designed to support 10 Gigabyte applications to full 100m. Extremely high pair-balance providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation, maximizing noise immunity and providing high alien cross talk performance to U/UTP (Unshielded Twisted Pair) cabling systems.



## COMPLIANCE

IEEE 802.3an :2006 (10GBASE-T)  
ANSI/TIA-568.2-D:2009 Category 6A  
ISO/IEC-11801, 2nd Edition Class EA  
IEC 61156-5:2002 Category 6A  
LSOH: IEC 60332-1, IEC 60754, IEC 61034  
IEC60332-3-22

## PRODUCT CLASSIFICATION

|                  |                    |
|------------------|--------------------|
| Product Sequence | E Series           |
| Product Type     | Twisted Pair Cable |

## MATERIAL CONSTRUCTION & DESIGN

|                                       |                              |
|---------------------------------------|------------------------------|
| Conductor Material                    | Bare Copper                  |
| Conductor Size                        | 23 AWG                       |
| Conductor Construction                | Solid                        |
| Insulation Material                   | HDPE                         |
| Insulation O.D.                       | 1.02 ± 0.05mm                |
| Colour Code                           | Per TIA/EIA 568-B            |
| Conductor Unit Lay-Up                 | Pairs                        |
| Total Number of Wires                 | 8                            |
| Outer Jacket Material                 | PVC/LSOH                     |
| Outer jacket thickness & Ex. Diameter | 0.70 ± 0.05 mm, 7.1 ± 0.4 mm |
| Outer Jacket Colour                   | Per requirement              |
| Rip Cord                              | No                           |

# CATEGORY 6A U/UTP 23 AWG 4 PAIR CABLE

## ELECTRICAL & MECHANICAL CHARACTERISTICS

|                                 |                                        |
|---------------------------------|----------------------------------------|
| Pulling Force                   | 110 N/mm <sup>2</sup> max.             |
| Delay Skew                      | 45 ns/100m max.                        |
| Characteristic Impedance        | 100±15Ω @1-250MHz, 100±22Ω @250-500MHz |
| DC Resistance                   | 93.8Ω/Km                               |
| Resistance Unbalance            | 5 %                                    |
| Capacitance                     | ≤5.6nF/100m                            |
| Cap. Unbalance (Wire to Ground) | ≤160pF/100m                            |
| Velocity of Propagation (NVP)   | 69%                                    |
| Insulation Resistance           | 5000 MΩ•Km min.                        |
| Transfer Impedance              | IEC61156-5 Type 2                      |
| Short Term Bend Radius          | 8 x OD mm                              |
| Long Term Bend Radius           | 4 x OD mm                              |
| Operating Temperature Range     | -20°C to +75°C                         |

## TRANSMISSION PERFORMANCE

Cat. 6A Un-screened Pair Horizontal Cables\*

| Frequency (Mhz) | Attenuation (20°C)≤dB | NEXT ≥dB | PHASE DELAY ≤ns | PSNEXT ≥dB | ELFEXT ≥dB | PSELFEXT ≥dB | RL ≥dB |
|-----------------|-----------------------|----------|-----------------|------------|------------|--------------|--------|
| 1               | 2.1                   | 74.3     | 570             | 72.3       | 67.8       | 64.8         | 20     |
| 4               | 3.8                   | 65.3     | 552             | 63.3       | 55.8       | 52.8         | 23     |
| 8               | 5.3                   | 60.8     | 546.7           | 58.8       | 49.7       | 46.7         | 24.5   |
| 10              | 5.9                   | 59.3     | 545.4           | 57.3       | 47.8       | 44.8         | 25     |
| 16              | 7.5                   | 56.2     | 543             | 54.2       | 43.7       | 40.7         | 25     |
| 20              | 8.4                   | 54.8     | 542.1           | 52.8       | 41.8       | 38.8         | 25     |
| 25              | 9.4                   | 53.3     | 541.2           | 51.3       | 39.8       | 36.8         | 24.3   |
| 31.25           | 10.5                  | 51.9     | 540.4           | 49.9       | 37.9       | 34.9         | 23.6   |
| 62.5            | 15                    | 47.4     | 538.6           | 45.4       | 31.9       | 28.9         | 21.5   |
| 100             | 19.1                  | 44.3     | 537.6           | 42.3       | 27.8       | 24.8         | 20.1   |
| 200             | 27.6                  | 39.8     | 536.5           | 37.8       | 21.8       | 18.8         | 18     |
| 250             | 31.1                  | 38.3     | 536.3           | 36.3       | 19.8       | 16.8         | 17.3   |
| 300             | 34.3                  | 37.1     | 536.1           | 35.1       | 18.3       | 15.3         | 16.8   |
| 500             | 45.3                  | 33.8     | 535.6           | 31.8       | 13.8       | 10.8         | 15.2   |

\*Supplied cables meets Cat. 6a min. transmission requirements as per IEC 61156-5 Ed. 2

## ORDERING INFORMATION

| Part Number   | Description                                                        | Standard Length |
|---------------|--------------------------------------------------------------------|-----------------|
| 114-40001104X | Category 6A U/UTP 23 AWG 4 Pair Cable PVC E Series                 | 305 mtr         |
| 114-40002104X | Category 6A U/UTP 23 AWG 4 Pair Cable LSOH E Series                | 305 mtr         |
| 114-4000M104X | Category 6A U/UTP 23 AWG 4 Pair Cable LSOH(IEC60332-3-22) E Series | 305 mtr         |

X:BK(Black), BL(Blue), GN(Green), GY(Gray), RD(Red), WH(White), YL(Yellow)

## PACKING INFORMATION

| Part Number   | Packing Mode     | N.W (kg) | G.W (kg) | Dimension (mm)  |
|---------------|------------------|----------|----------|-----------------|
| 114-40001104X | Plywood Reel/Ctn | 14.3     | 16.3     | 340 x 340 x 340 |
| 114-40002104X | Plywood Reel/Ctn | 15.0     | 16.8     | 340 x 340 x 340 |
| 114-4000M104X | Plywood Reel/Ctn | 15.3     | 17       | 370 x 370 x 260 |