

# LANmark-6

## UTP 4 pair and 2x4 pair Data Cables

### Application

LANmark-6 UTP cable is the ultimate solution for a future proof network. It is specifically designed to support the exacting requirements for tomorrow's protocols, yet is fully backwards compatible with today's needs. It is the recommended cable for all forthcoming installations.

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethernet
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM
- future class E applications

LANmark-6 UTP is independently verified to exceed the requirements of the ISO/IEC 11801 Category 6 requirements.

### Performance

Tested to 500 MHz and with guaranteed performance to 350 MHz, Nexans LANmark-6 cables provide guaranteed headroom and bandwidth over and above the requirements of IEC 61156-5, TIA-568-B and EN 50288. Typical worst ACR figures are shown for comparison. Actual data are detailed overleaf.

### Guarantees

Nexans simple to understand commitment provides a 20 year guarantee that LANmark-6 *is* Category 6 and covers both parts & labour

- Category 6
- Parts & Labour
- 20 years

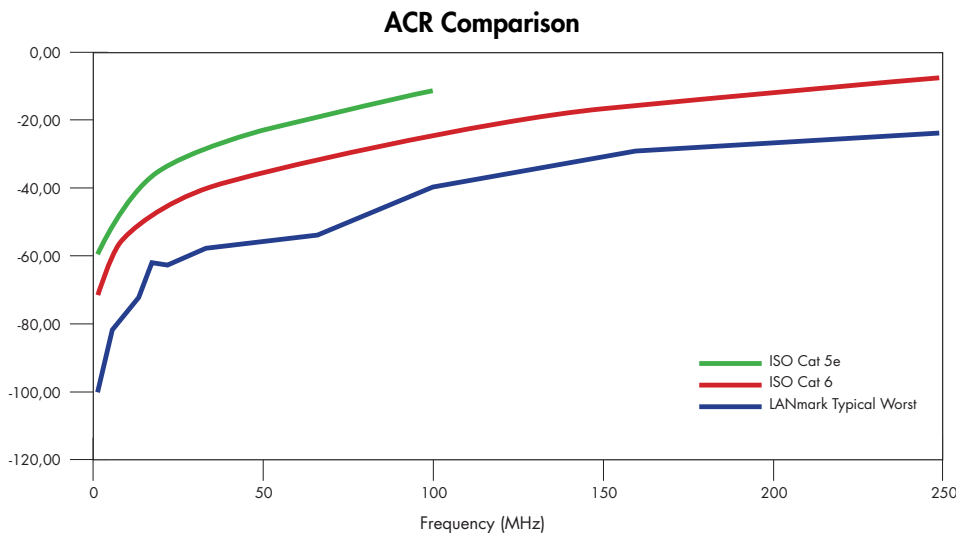
### Installation

LANmark-6 UTP is installed in exactly the same way as Category 5 cables:

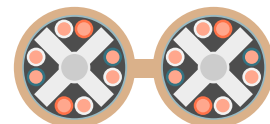
- C<sup>3</sup> central cross member (1) reduces risk of crushing or kinking
- C<sup>3</sup> member can be cut off or left in place at punchdown

Minimum Bend Radius :  
operation 26 mm  
installation 52 mm

Max. Installation tension :  
UTP 4 pair 100N  
UTP Shotgun 2x4 pair 200N



UTP 4 pair



UTP 2x4 pair  
shotgun



## UTP 4 pair and 2x4 pair shotgun Data Cables

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### Electrical Performance

| Frequency MHz | Attenuation dB/100 m | NEXT pr/pr dB | ACR dB/100 m | PS NEXT dB (*) | EL-FEXT pr/pr dB/100 m | PS EL-FEXT dB/100 m | RL dB |
|---------------|----------------------|---------------|--------------|----------------|------------------------|---------------------|-------|
| 1             | 2.0                  | 74.3          | 72.3         | 72.3           | 70.0                   | 67.0                | 20    |
| 4             | 3.8                  | 65.3          | 61.5         | 63.3           | 58.0                   | 55.0                | 23    |
| 10            | 6.0                  | 59.2          | 53.3         | 57.3           | 50.0                   | 47.0                | 25    |
| 16            | 7.6                  | 56.3          | 48.6         | 54.3           | 45.9                   | 42.9                | 25    |
| 20            | 8.5                  | 54.8          | 46.3         | 52.8           | 44.0                   | 41.0                | 25    |
| 31.25         | 10.7                 | 51.9          | 41.2         | 49.9           | 40.5                   | 37.5                | 23.6  |
| 62.5          | 15.4                 | 47.4          | 32.0         | 45.4           | 34.1                   | 31.1                | 21.5  |
| 100           | 19.8                 | 44.3          | 24.5         | 42.3           | 30.0                   | 27.0                | 20.1  |
| 155           | 25.2                 | 41.4          | 16.2         | 39.5           | 26.2                   | 23.2                | 18.8  |
| 200           | 29.0                 | 39.8          | 10.8         | 37.8           | 24.0                   | 21.0                | 18    |
| 250           | 32.8                 | 38.3          | 5.5          | 36.3           | 22.0                   | 19.0                | 17.3  |
| 300           | 36.4                 | 37.1          | 1.5          | 35.2           | 20.5                   | 17.5                | 16.8  |
| 350           | 39.8                 | 36.1          | -            | 34.2           | 19.1                   | 16.1                | 14.1  |

(\*) Shotgun versions additionally comply to the additional PS NEXT requirements for multi-unit cables as specified in the relevant TIA and IEC cable standards.

All data subject to change without prior notice.

For installation, please refer to the installation guidelines.

### Other characteristics

|                                       |          |
|---------------------------------------|----------|
| Mutual Capacity (nF/km)               | 56       |
| DC resistance (Ohm/km)                | 70       |
| Skew (ns/100m)                        | 30       |
| Velocity of propagation (%)           | 68       |
| Propagation delay @ 100 MHz (ns/100m) | <536     |
| Characteristic impedance (Ohm)        | 100 ± 15 |
| Coupling attenuation at 30 MHz (dB)   | 45       |

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### Physical characteristics

|                              | UTP  | UTP shotgun  |
|------------------------------|------|--------------|
| Conductor diameter(mm)       | 0.58 | 0.58         |
| Insulation diameter (mm)     | 1.02 | 1.02         |
| Cable diameter (mm)          | 6.40 | 6.40 x 15.10 |
| Nominal cable weight (kg/km) | 44   | 91           |

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### Environmental characteristics

|                                   | UTP         | UTP shotgun |
|-----------------------------------|-------------|-------------|
| Temperature rating (installation) | 0°C/+50°C   | 0°C/+50°C   |
| Temperature rating (operation)    | -20°C/+60°C | -20°C/+60°C |
| Flame retardant (IEC 332-1)       | Yes         | Yes         |
| Fire load (MJ/km)                 | 558         | 1144        |

[www.nexans.com/ncs](http://www.nexans.com/ncs)

### Part Numbers

| Cable type  | No of pairs | PART No | Sheath | Colour | Packaging   |
|-------------|-------------|---------|--------|--------|-------------|
| UTP         | 4pr         | 100.617 | PVC    | Grey   | 305 m box   |
|             |             | 100.616 | PVC    | Grey   | 1000 m reel |
|             |             | 100.608 | PVC    | Grey   | 500 m reel  |
|             |             | 100.607 | LSZH   | Orange | 305 m box   |
|             |             | 100.606 | LSZH   | Orange | 1000 m reel |
|             |             | 100.605 | LSZH   | Orange | 500 m reel  |
| UTP Shotgun | 2 x 4 pr    | 100.619 | PVC    | Grey   | 500 m reel  |
|             |             | 100.609 | LSZH   | Orange | 500 m reel  |

