

## F/UTP CAT6 4PR PVC+PE

### STANDARDS

IEC 61156-5  
EN 50288-5-1  
ISO/IEC 11801  
EN 50173

### APPLICATIONS

10BASE-T (IEEE 802.3)  
4/16 Mbps TOKEN RING (IEEE 802.5)  
100BASE-VG-AnyLAN  
100 Mbps TP-PMD (ANSI X3T9.5)  
100BASE-T (IEEE 802.3)  
55/155 Mbps ATM  
1000BASE-T (Gigabit Ethernet)  
1.2 Gbps ATM  
10G BASE-T (Length<50m)

### COLOUR CODES

| Pairs | Colours Combinations |
|-------|----------------------|
| 1     | Light Blue / Blue    |
| 2     | White / Orange       |
| 3     | Light Green / Green  |
| 4     | Light Brown / Brown  |

Outer sheath colour: Black

### PART NUMBER / PACKAGING

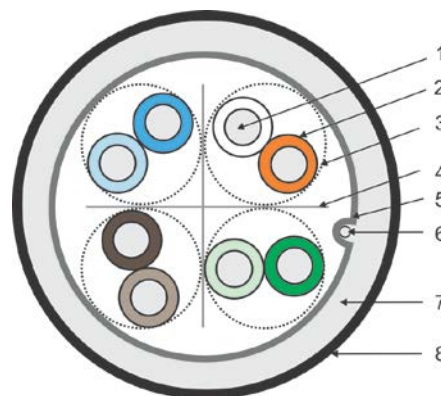
54114A6NGPQ / Spools 500m  
54114A6NGP / Spools 1000m

### OTHER CHARACTERISTICS

Storage Temperature -20°C to 70°C  
Operating Temperature -20°C to 70°C

Laying Temperature -5°C to +50°C  
(recommendation: between -5°C and +5°C, prior storage 24h at 20°C.)

Edition: January 2013



### CONSTRUCTION

- 1 – Conductor: 23 AWG, Solid Bare Annealed Copper.
- 2 – Insulation: Polyolefin.
- 3 – Varying short pair lay-length (4 pairs).
- 4 – Cross Filler
- 5 – Overall Aluminium/Polyester foil.
- 6 – Tinned copper drain wire.
- 7 – Inner Sheath: PVC material.
- 8 – Outer Sheath: PE material.

### ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

|   |   |
|---|---|
| Max. dc Resistance ( $\Omega$ /km) @20°C: | 95.0  |
| Nom. Mutual Capacity (nF/km)@1kHz:        | 56  |
| NVP (% of light speed):                   | 72  |
| Mean input Impedance ( $\Omega$ ):        | 100 $\pm$ 5 @ 100MHz                          |
| Propagation delay (ns@10MHz):             | max. 518                                      |
| Delay Skew (ns/100m):                     | max. 40                                       |
| Coupling Att dB (min.):                   | @30-100MHz 55<br>@100-1000MHz 55-20log(f/100) |

|                              |      |
|------------------------------|------|
| Approx. outer diameter (mm): | 8.0  |
| Approx. weight (kg/km):      | 61.0 |
| Min. bending radius (mm):    | 32.0 |

### TRANSMISSION CHARACTERISTICS

| Freq  | ATTN           | NEXT      | PS-NEXT   | ELFEXT         | PS-ELFEXT      | ACR            | PS-ACR         | RL        |
|-------|----------------|-----------|-----------|----------------|----------------|----------------|----------------|-----------|
| MHz   | dB/100m (max.) | dB (min.) | dB (min.) | dB/100m (min.) | dB/100m (min.) | dB/100m (min.) | dB/100m (min.) | dB (min.) |
| 1*    | 2.1            | 75.3      | 72.3      | 68.0           | 65.0           | 73.2           | 70.2           | 20.0      |
| 4     | 3.8            | 66.3      | 63.3      | 58.0           | 55.0           | 62.5           | 59.5           | 23.0      |
| 8     | 5.2            | 61.8      | 58.8      | 51.9           | 48.9           | 56.5           | 53.5           | 24.5      |
| 10    | 5.9            | 60.3      | 57.3      | 50.0           | 47.0           | 54.4           | 51.4           | 25.0      |
| 16    | 7.4            | 57.2      | 54.2      | 45.9           | 42.9           | 49.9           | 46.9           | 25.0      |
| 25    | 9.2            | 54.3      | 51.3      | 42.0           | 39.0           | 45.0           | 42.0           | 24.3      |
| 31.25 | 10.3           | 52.9      | 49.9      | 40.1           | 37.1           | 42.6           | 39.6           | 23.6      |
| 62.5  | 14.5           | 48.4      | 45.4      | 34.1           | 31.1           | 33.8           | 30.8           | 21.5      |
| 100   | 18.4           | 45.3      | 42.3      | 30.0           | 27.0           | 26.9           | 23.9           | 20.1      |
| 155   | 22.9           | 42.4      | 39.4      | 26.2           | 23.2           | 19.5           | 16.5           | 18.8      |
| 200   | 26.1           | 40.8      | 37.8      | 24.0           | 21.0           | 14.7           | 11.7           | 18.0      |
| 250   | 29.2           | 39.3      | 36.3      | 22.0           | 19.0           | 10.1           | 7.1            | 17.3      |
| 300*  | 32.0           | 38.1      | 35.1      | 20.5           | 17.5           | 6.1            | 3.1            | 17.3      |
| 350*  | 34.7           | 37.1      | 34.1      | 19.1           | 16.1           | 2.5            | 1.0            | 17.3      |

\* For information only.

Note: DATA cables are not suitable for low impedance applications as: heating, lighting, etc...  
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