## *Data Sheet*

# EmiterNet PE UTP (U/UTP) Cat.6 outdoor gel-filled cable, code: K/EMITERNET-UTP6Out-GEL.

**Description and Technical Characteristics of the Product:**

Category 6 four-pair unshielded cable is designed for ICT data transmission systems.

The cable design is based on a central separator that separates the individual pairs to reduce near-end crosstalk. The separator is made of PVC and takes the form of a cross. The cable has 4 pairs of wires (the strands are made of pure copper) twisted together in such a way as to reduce near-end crosstalk. Thus, using this cable, it is possible to achieve a GigabitEthernet connection. The outer sleeving of the cable is made of weather-resistant PE polyethylene. The inner core is filled with hydrophobic gel to ensure the cable's resistance to longitudinal water penetration.

Thanks to the combination of polyethylene insulation and gel filling, the cable can be laid directly in the ground.

The cable has 4 pairs of colour-coded wires. The manufacturer's designation is printed on the cable, as well as standards compliance and length marking (EmiterNet -HN UTP Cat.6 PE+GEL 23AWG x 4PR outdoor, Verified to EN/PL 50173 ISO/IEC 11801 EIA/TIA 568-C.2 MM/YY xxxm).

**Technical parameters:**

| | |
|---|---|
| Outer diameter of the cable | 6.7mm +/- 0.5mm |
| Diameter of a single strand | 0.57mm; 23 AWG |
| Outer insulation of the cable | PE |
| Colour of external insulation | Black |
| Strand insulation | PE |
| Strands | single-wire copper |
| Core | hydrophobic gel |
| Wave impedance | 100Ω +/- 15Ω for 1–250MHz |
| Resistance of any pair for DC voltage | 95Ω/km |
| NVP | 62.00% |
| Insulation resistance of any strand (min) | 150MΩ/km |
| Mutual capacitance of any pair (f=1kHz) | 330pF/100m |
| Bending radius when laying | 60mm |
| Bending radius during operation | 30mm |
| Operating temperature | -40ºC - +70 ºC |
| Temperature during laying | 0ºC - +50 ºC |
| Weight | 54kg/km |
| Packaging | 305m drum |

## *Data Sheet*

| PARAMETERS | | | | |
|---|---|---|---|---|
| **Dynamic parameters:** | | | | |
| ***Frequency*** | ***Return Loss*** | ***Attenuation*** | ***NEXT*** | ***ACR*** |
| (MHz) | (dB) | (dB/100m) | (dB) | (dB) |
| 1 | 20.0 | 2.0 | 74.3 | 72 |
| 4 | 23.0 | 3.8 | 65.3 | 61 |
| 8 | 24.5 | 5.3 | 60.8 | 55 |
| 10 | 25.0 | 6.0 | 59.3 | 53 |
| 16 | 25.0 | 7.6 | 56.2 | 49 |
| 20 | 25.0 | 8.5 | 54.8 | 46 |
| 25 | 24.3 | 9.5 | 53.3 | 44 |
| 31.25 | 23.6 | 10.7 | 51.9 | 41 |
| 62.5 | 21.5 | 15.4 | 47.4 | 32 |
| 100 | 20.1 | 19.8 | 44.3 | 25 |
| 150 | 18.9 | 24.7 | 41.7 | 16.9 |
| 200 | 18 | 29.0 | 39.8 | 10.8 |
| 250 | 17.3 | 32.8 | 38.3 | 5.5 |
| | | | | |
| ***Frequency*** | ***PSNEXT*** | ***ELFEXT*** | ***PSELFEXT*** | ***Delay*** |
| (MHz) | (dB) | (dB/100m) | (dB/100m) | (ns/100m) |
| 1 | 72.3 | 67.8 | 64.8 | 570.0 |
| 4 | 63.3 | 55.8 | 52.8 | 552.0 |
| 8 | 58.8 | 49.7 | 46.7 | 546.7 |
| 10 | 57.3 | 47.8 | 44.8 | 545.4 |
| 16 | 54.2 | 43.7 | 40.7 | 543.0 |
| 20 | 52.8 | 41.8 | 38.8 | 542.0 |
| 25 | 51.3 | 39.8 | 36.8 | 541.2 |
| 31.25 | 49.9 | 37.9 | 34.9 | 540.4 |
| 62.5 | 45.4 | 31.9 | 28.9 | 538.6 |
| 100 | 42.3 | 27.8 | 24.8 | 537.6 |
| 150 | 39.7 | 24.3 | 21.3 | 536.9 |
| 200 | 37.8 | 21.8 | 18.8 | 536.5 |
| 250 | 36.3 | 19.8 | 16.8 | 536.3 |

**Standards compliance:** EIA/TIA 568-C.2, EIA/TIA 568-B.2, ISO/IEC 11801, PN-EN50173, IEC61156-5, EN50288-6-1, IEC60332-1, IEC 60754-2

Product warranty 5 years from the date of purchase.

**Attention:**
**The cable is not dedicated to making certified networks!**

We have made every effort to ensure that the information presented is accurate and complete. However, we are not responsible for the accuracy and completeness of the data and, in particular, we cannot guarantee that this specification does not contain errors or mistakes. The information contained in this specification may be changed at any time without notice.