

**Contact**

Copper LAN Product Inquiry  
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berktek.support@nexans.com

## LANmark-1000 Enhanced Category 6 Riser Rated

**LANmark-1000 Riser**

**Part Number: 10065429**

LANmark-1000 has been improved to offer best-in-class electrical performance. Berk-Tek's engineers completely redesigned LANmark-1000 so that all crosstalk parameters could be improved by four dB. As a result, the Power Sum Attenuation to Crosstalk ratio (PSACR) is nearly 3 times better (at 250 MHz) allowing for much greater signal strength and less vulnerability to noise interference. At Berk-Tek, we understand that your business runs through us.

### Description

#### Berk-Tek LANmark-1000, Performance Guaranteed

Before any cable can display the **Berk-Tek LANmark-1000** legend, it must pass factory tests with **a minimum of 5dB of crosstalk margin beyond the CAT 6 standard for NEXT, PSNEXT, ACR and PSACR**. If the margin is missing, so is the legend. That is our guarantee to you.

Your business demands continuous performance from your IT network, so our specifications aren't simply numbers on the page. They define the way that we do business. This means that you are **guaranteed** industry-leading performance and quality for all Berk-Tek products.

Some other manufacturers talk about "typical" values, at Berk-Tek, we hold ourselves to a higher standard. We won't talk about typicals, we talk about what is true, guaranteed, and independently verified.

Keep your business running by relying on Berk-Tek.

**Berk-Tek ...Because Your Business Runs Through Us.**

#### Construction

23 AWG bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit, jacketed with flame-retardant PVC.

#### Flame Rating

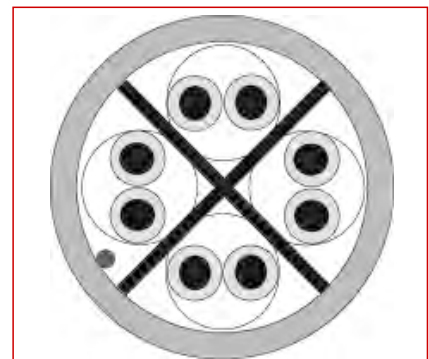
Riser - UL 1666, CMR, UL Listed

#### Features

- Full Power Sum Performance
- Documented balance characteristics (LCL, LCTL)
- ETL verified to ANSI/TIA/EIA-568-C.2 standard
- RoHS Compliant

#### Benefits

- Optimal support for Gigabit Ethernet with headroom
- Power sum characterization gives highest performance using existing applications
- Provides additional bandwidth required for future applications
- Addition of balance requirements improves overall cable performance and reduces cable emissions which results in reduced transmission errors
- Characterized to 550 MHz, 300 MHz greater than the standard



#### Standards

**International ISO/IEC 11801**

**National ANSI/TIA-568-C.2; UL 444**

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### Characteristics

#### Construction characteristics

|               |      |
|---------------|------|
| Type of cable | UTP  |
| Colour        | Blue |

#### Dimensional characteristics

|                 |           |
|-----------------|-----------|
| Length per reel | 1000.0 ft |
| Number of pairs | 4         |

#### Usage characteristics

|                      |                   |
|----------------------|-------------------|
| Packaging            | Reel in a box     |
| Field of application | Indoor            |
| Category             | Cat. 6            |
| Fire safety          | CMR - Riser Rated |

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### LANmark-1000 Parametric Data: Electrical

| RL (dB)  |          |                   |                      | NEXT (dB) |                   |                      | PSNEXT (dB) |                   |                      |
|----------|----------|-------------------|----------------------|-----------|-------------------|----------------------|-------------|-------------------|----------------------|
| FREQ MHz | TIA Spec | Product Guarantee | Expected Performance | TIA Spec  | Product Guarantee | Expected Performance | TIA Spec    | Product Guarantee | Expected Performance |
| 1        | 20.0     | 20.0              | 32.9                 | 74.3      | 79.3              | 92.5                 | 72.3        | 77.3              | 88.5                 |
| 4        | 23.0     | 23.6              | 33.2                 | 65.3      | 70.3              | 83.8                 | 63.3        | 68.3              | 79.8                 |
| 10       | 25.0     | 26.0              | 35.4                 | 59.3      | 64.3              | 77.1                 | 57.3        | 62.3              | 73.3                 |
| 16       | 25.0     | 26.0              | 37.6                 | 56.2      | 61.3              | 74.0                 | 54.2        | 59.3              | 70.2                 |
| 20       | 25.0     | 26.0              | 36.7                 | 54.8      | 59.8              | 72.6                 | 52.8        | 57.8              | 68.9                 |
| 31.25    | 23.6     | 25.0              | 37.0                 | 51.9      | 56.9              | 69.5                 | 49.9        | 54.9              | 65.9                 |
| 62.5     | 21.5     | 23.5              | 34.2                 | 47.4      | 52.4              | 65.0                 | 45.4        | 50.4              | 61.4                 |
| 100      | 20.1     | 22.5              | 32.7                 | 44.3      | 49.3              | 62.1                 | 42.3        | 47.3              | 58.4                 |
| 150      | 18.9     | 21.6              | 32.3                 | 41.7      | 46.7              | 59.2                 | 39.7        | 44.7              | 55.4                 |
| 200      | 18.0     | 21.0              | 32.0                 | 39.8      | 44.8              | 57.4                 | 37.8        | 42.8              | 53.5                 |
| 250      | 17.3     | 20.5              | 31.2                 | 38.3      | 43.4              | 55.5                 | 36.3        | 41.4              | 51.7                 |
| 300      | —        | 20.1              | 30.1                 | —         | 42.2              | 54.3                 | —           | 40.2              | 50.4                 |
| 350      | —        | 19.8              | 29.6                 | —         | 41.2              | 53.2                 | —           | 39.2              | 49.1                 |
| 400      | —        | —                 | 28.6                 | —         | —                 | 51.7                 | —           | —                 | 47.8                 |
| 450      | —        | —                 | 27.7                 | —         | —                 | 50.2                 | —           | —                 | 45.9                 |
| 500      | —        | —                 | 27.3                 | —         | —                 | 48.8                 | —           | —                 | 44.3                 |

| IL (dB/100m) |          |                   |                      | ACR (dB/100m) |                   |                      | PSACR (dB/100m) |                   |                      |
|--------------|----------|-------------------|----------------------|---------------|-------------------|----------------------|-----------------|-------------------|----------------------|
| FREQ MHz     | TIA Spec | Product Guarantee | Expected Performance | TIA Spec      | Product Guarantee | Expected Performance | TIA Spec        | Product Guarantee | Expected Performance |
| 1            | 2.0      | 2.0               | 1.7                  | 72.3          | 77.3              | 88.4                 | 70.3            | 75.3              | 86.5                 |
| 4            | 3.8      | 3.8               | 3.5                  | 61.5          | 66.6              | 78.1                 | 59.5            | 64.6              | 76.1                 |
| 10           | 6.0      | 5.9               | 5.5                  | 53.3          | 58.4              | 69.4                 | 51.3            | 56.4              | 67.6                 |
| 16           | 7.6      | 7.5               | 7.0                  | 48.7          | 53.8              | 64.5                 | 46.7            | 51.7              | 62.8                 |
| 20           | 8.5      | 8.4               | 7.9                  | 46.3          | 51.4              | 62.6                 | 44.3            | 49.4              | 60.8                 |
| 31.25        | 10.7     | 10.6              | 9.9                  | 41.2          | 46.4              | 57.3                 | 39.2            | 44.3              | 55.7                 |
| 62.5         | 15.4     | 15.3              | 14.3                 | 32.0          | 37.1              | 48.4                 | 30.0            | 35.1              | 46.7                 |
| 100          | 19.8     | 19.7              | 18.3                 | 24.5          | 29.7              | 41.3                 | 22.5            | 27.6              | 39.6                 |
| 150          | 24.7     | 24.5              | 22.8                 | 16.9          | 22.2              | 34.0                 | 14.9            | 20.2              | 32.2                 |
| 200          | 29.0     | 28.8              | 26.6                 | 10.8          | 16.0              | 28.0                 | 8.8             | 14.0              | 26.3                 |
| 250          | 32.8     | 32.6              | 30.0                 | 5.5           | 10.8              | 22.7                 | 3.5             | 8.7               | 20.9                 |
| 300          | —        | 36.1              | 33.0                 | —             | 6.1               | 18.1                 | —               | 4.1               | 16.5                 |
| 350          | —        | 39.4              | 35.8                 | —             | 1.8               | 13.9                 | —               | -0.2              | 12.2                 |
| 400          | —        | —                 | 38.5                 | —             | —                 | 10.2                 | —               | —                 | 8.3                  |

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|     |   |   |      |   |   |     |   |   |      |
|-----|---|---|------|---|---|-----|---|---|------|
| 450 | — | — | 41.3 | — | — | 5.3 | — | — | 3.6  |
| 500 | — | — | 43.8 | — | — | 1.0 | — | — | -0.4 |

All swept frequency values above 350 MHz are for engineering purposes only.

### LANmark-1000 Parametric Data: Electrical (cont)

| ACRF (dB/100m) |          |                      |                                 | PSACRF (dB/100m) |                      |                                 |                      | LCL/TCL              | EL TCTL |
|----------------|----------|----------------------|---------------------------------|------------------|----------------------|---------------------------------|----------------------|----------------------|---------|
| FREQ<br>MHz    | TIA Spec | Product<br>Guarantee | <u>Expected<br/>Performance</u> | TIA Spec         | Product<br>Guarantee | <u>Expected<br/>Performance</u> | Product<br>Guarantee | Product<br>Guarantee |         |

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|       |      |      |      |      |      |      |      |      |
|-------|------|------|------|------|------|------|------|------|
| 1     | 67.8 | 72.8 | 86.3 | 64.8 | 69.8 | 81.6 | 50.0 | 35.0 |
| 4     | 55.8 | 60.7 | 74.5 | 52.8 | 57.7 | 69.8 | 44.0 | 23.0 |
| 10    | 47.8 | 52.8 | 66.6 | 44.8 | 49.8 | 62.0 | 40.0 | 15.0 |
| 16    | 43.7 | 48.7 | 62.4 | 40.7 | 45.7 | 57.7 | 38.0 | 10.9 |
| 20    | 41.8 | 46.8 | 60.6 | 38.8 | 43.8 | 56.1 | 37.0 | 9.0  |
| 31.25 | 37.9 | 42.9 | 56.8 | 34.9 | 39.9 | 52.1 | 35.1 | 5.1  |
| 62.5  | 31.9 | 36.8 | 50.5 | 28.9 | 33.8 | 46.2 | 32.0 | —    |
| 100   | 27.8 | 32.8 | 46.2 | 24.8 | 29.8 | 42.1 | 30.0 | —    |
| 150   | 24.3 | 29.3 | 42.4 | 21.3 | 26.3 | 38.6 | 28.2 | —    |
| 200   | 21.8 | 26.7 | 39.7 | 18.8 | 23.7 | 36.1 | 27.0 | —    |
| 250   | 19.8 | 24.8 | 37.9 | 16.8 | 21.8 | 34.1 | 26.0 | —    |
| 300   | —    | 23.2 | 36.1 | —    | 20.2 | 32.5 | 25.2 | —    |
| 350   | —    | 21.9 | 34.7 | —    | 18.9 | 30.9 | 24.6 | —    |
| 400   | —    | —    | 33.3 | —    | —    | 29.2 | 24.0 | —    |
| 450   | —    | —    | 31.2 | —    | —    | 27.5 | 23.5 | —    |
| 500   | —    | —    | 29.5 | —    | —    | 25.3 | 23.0 | —    |

All swept frequency values above 350 MHz are for engineering purposes only.

### LANmark-1000 Riser UTP Physical Data

| Technical Data - Physical           |                    |        | Color Code                     |              |        |
|-------------------------------------|--------------------|--------|--------------------------------|--------------|--------|
| Conductor                           | 23 AWG Bare Copper |        | Pair-1                         | White/Blue   | Blue   |
| Conductor diameter - in. (mm)       | 0.022              | (0.56) | Pair-2                         | White/Orange | Orange |
| Insulated conductor dia.-in.(mm)    | 0.039              | (0.94) | Pair-3                         | White/Green  | Green  |
| Cable diameter - in. (mm)           | 0.228              | (5.7)  | Pair-4                         | White/Brown  | Brown  |
| Nom. cable wt.-lb./kft. (kg/kft)    | 25                 | (11.3) | Temperature Rating (degrees C) |              |        |
| Max. installation tension - lb. (N) | 25                 | (110)  | Installation                   | 0 to +50     |        |
| Min. bend radius - in. (mm)         | 1                  | (25.4) | Operation                      | -20 to +75   |        |

### LANmark-1000 Riser Technical Data - Parametric Measurements

|                          |  |
|--------------------------|--|
| Mutual Capacitance       | 5.6 nF/100 m max.  |
| DC Resistance            | 9.38 Ohms/100 m max.   |
| Skew                     | 35 ns/100 m max.   |
| Pair to Ground Unbalance | 330 pF/100 m max.  |
| Velocity of Propagation  | 69% nom.   |
| DC Resistance unbalance  | 5% max.  |
| Input Impedance          | 100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-350 MHz |

### Supported Category 6 Applications

| STANDARD    | APPLICATION | SPEED  |
|-------------|-------------|--------|
| IEEE 802.3  | 1000BASE-T  | 1 Gb/s |
| TIA/EIA-854 | 1000BASE-TX | 1 Gb/s |

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|               |                  |          |
|---------------|------------------|----------|
| ATM           | 155Mb/s          | 155 Mb/s |
| IEEE 802.3    | 100BASE-TX       | 100 Mb/s |
| CDDI          |                  | 100 Mb/s |
| IEEE 802.3    | 10BASE-T         | 10 Mb/s  |
| IEEE 802.3 af | PoE              | 1 Gb/s   |
| IEEE 802.3 at | PoE+, Type 1 & 2 | 1 Gb/s   |

### Selling information

PLEASE NOTE: In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.