

# DH-PFM920I-6UN-C

## UTP CAT6 Cable



- 305 m (1000 ft)/carton UTP CAT6, power over Ethernet, compatible with one cable
- High-purity oxygen-free copper conductor
- Customized PVC outer sheath; CE CPR Eca flame retardant class certified
- 10-year warranty

### System Overview

Network cables are the most commonly used transmission mediums in generic cabling system. It is usually composed of 4 pairs of twisted wires, and is generally applied in system cabling within 100 meters.

### Technical Specification

#### Conductor

|          |                                    |
|----------|------------------------------------|
| Material | Oxygen free copper (99.97% purity) |
| Diameter | 0.53 mm $\pm$ 0.01 mm              |

#### Insulation

|                        |                                                                                |
|------------------------|--------------------------------------------------------------------------------|
| Material               | HDPE                                                                           |
| Min. Average Thickness | 0.21 mm                                                                        |
| Diameter               | 0.95 mm $\pm$ 0.1 mm                                                           |
| Color (4 Pairs)        | Blue, white/blue; orange, white/orange; green, white/green; brown, white/brown |

#### Separator

|               |                                 |
|---------------|---------------------------------|
| Material      | PE                              |
| Specification | Translucent 4.5 $\times$ 0.4 mm |

#### Rip Cord

|               |           |
|---------------|-----------|
| Material      | Polyester |
| Specification | 500D      |

#### Sheath

|                        |        |
|------------------------|--------|
| Material               | PVC    |
| Min. Average Thickness | 0.5 mm |

|          |                     |
|----------|---------------------|
| Diameter | 6.0 mm $\pm$ 0.3 mm |
| Color    | Blue                |

#### Electrical

|                                          |                                    |
|------------------------------------------|------------------------------------|
| Max. DC Resistance of a Single Conductor | 8.7 $\Omega$ /100 m                |
| Min. Insulation Resistance               | 5000M $\Omega$ -km                 |
| Max. DC Resistance Unbalance             | 2% (pair intra), 4% (pairs inter)  |
| Dielectric Strength                      | No breakdown with 1KV DC for 1 min |

#### Transmission

|                          |                               |
|--------------------------|-------------------------------|
| Characteristic Impedance | 100 $\pm$ 15 $\Omega$         |
| Near End Cross Talk      | $\geq$ 39.30 dB/100 m@250 MHz |
| Max. Attenuation         | 34.8 dB/100 m@250 MHz         |
| Return Loss              | $\geq$ 17.3 dB/100 m@250 MHz  |

#### Mechanical

|                               |                                                  |
|-------------------------------|--------------------------------------------------|
| Tensile Strength              | Sheath $\geq$ 13.5 MPa, insulation $\geq$ 16 MPa |
| Elongation at Break           | Sheath $\geq$ 150%, insulation $\geq$ 300%       |
| Installation Bending Radius   | >8 times of outer cable diameter                 |
| Conductor Elongation at Break | $\geq$ 10%                                       |

#### Environmental

|                                                             |                              |
|-------------------------------------------------------------|------------------------------|
| Shrinkage of Insulation                                     | $\leq$ 5%                    |
| Color Migration Resistance of Insulation                    | No migration                 |
| Sheath Tensile Strength and Elongation at Break after Aging | $\geq$ 12.5 MPa, $\geq$ 100% |

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Low Temperature Bending Test     | No cracking after the test                |
| Heat Shock Test                  | No cracking after the test                |
| Operating Temperature            | -20°C to +60°C (-4°F to 140°F)            |
| Installation Temperature         | 0°C to +50°C (32°F to 122°F)              |
| Storage Temperature and Humidity | -10°C to +40°C (14°F to 104°F), <60% (RH) |

## Security

|                                |                           |
|--------------------------------|---------------------------|
| Vertical Fire Propagation Test | Comply with IEC 60332-1-2 |
|--------------------------------|---------------------------|

## Packaging

|                         |                                                                       |
|-------------------------|-----------------------------------------------------------------------|
| Cable Length            | 305.0 m (1000.66 ft) ± 1.5 m (4.92 ft)                                |
| Inner Carton Dimensions | 324.0 mm × 269.0 mm × 344.0 mm (12.76" × 10.59" × 13.54") (L × W × H) |
| Packaging Method        | 305.0 m (1000.66 ft) a carton, 36 pcs/pallet                          |
| Net Weight              | ≥10.5 kg (23.15 lb)                                                   |
| Gross Weight            | ≥12.8kg (28.22lb)                                                     |

## Compliance

|                     |                              |
|---------------------|------------------------------|
| Executive Standards | Q/DXJ 067-2019, EN50575-2014 |
|---------------------|------------------------------|

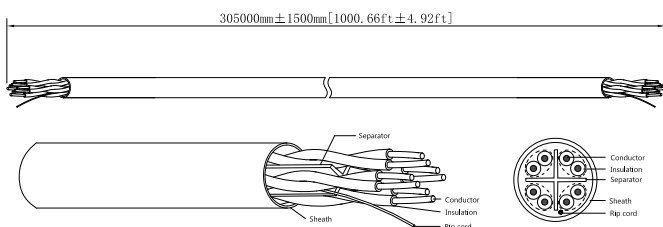
## Certification

|               |              |
|---------------|--------------|
| Certification | CPR Eca, RCM |
|---------------|--------------|

## Ordering Information

| Type          | Model            | Description    |
|---------------|------------------|----------------|
| Network Cable | DH-PFM920I-6UN-C | UTP CAT6 Cable |

## Dimensions (mm/inch)



## Transmission Characteristics (100 m at 20°C) (328.08 ft at 68°F)

| Frequency (MHz) | Phase delay ≤ ns | IL ≤ dB         | TCL ≥ dB* | EL TCTL ≥ dB*   | NEXT ≥ dB | PS NEXT ≥ dB |
|-----------------|------------------|-----------------|-----------|-----------------|-----------|--------------|
| 1               | n/s              | n/s             | 50.0      | 35.0            | n/s       | n/s          |
| 4               | 552.0            | 4.0             | 44.0      | 23.0            | 66.3      | 63.3         |
| 8               | 547.0            | 5.6             | 41.0      | 16.9            | 61.8      | 58.8         |
| 10              | 545.0            | 6.4             | 40.0      | 15.0            | 60.3      | 57.3         |
| 16              | 543.0            | 8.1             | 38.0      | 10.9            | 57.2      | 54.2         |
| 20              | 542.0            | 9.0             | 37.0      | 9.0             | 55.8      | 52.8         |
| 25              | 541.0            | 10.1            | 36.0      | 7.0             | 54.3      | 51.3         |
| 30*             | 540.6            | 11.0            | 35.2      | 5.5             | 53.1      | 50.1         |
| 31.25           | 540.0            | 11.3            | 35.1      | n/s             | 52.9      | 49.9         |
| 62.5            | 539.0            | 16.3            | 32.0      | n/s             | 48.4      | 45.4         |
| 100             | 538.0            | 21.0            | 30.0      | n/s             | 45.3      | 42.3         |
| 200             | 537.0            | 30.7            | 27.0      | n/s             | 40.8      | 37.8         |
| 250             | 536.0            | 34.8            | 26.0      | n/s             | 39.3      | 36.3         |
| Frequency (MHz) | EL FEXT ≥ dB     | PS EL FEXT ≥ dB | RL ≥ dB   | Delay skew ≤ ns | Zc(Ω)     |              |
| 1               | n/s              | n/s             | n/s       | n/s             | n/s       |              |
| 4               | 56.0             | 53.0            | 23.0      | 45.0            | 100±15    |              |
| 8               | 49.9             | 46.9            | 24.5      |                 |           |              |
| 10              | 48.0             | 45.0            | 25.0      |                 |           |              |
| 16              | 43.9             | 40.9            | 25.0      |                 |           |              |
| 20              | 42.0             | 39.0            | 25.0      |                 |           |              |
| 25              | 40.0             | 37.0            | 24.3      |                 |           |              |
| 30*             | 38.5             | 35.5            | 23.8      |                 |           |              |
| 31.25           | 38.1             | 35.1            | 23.6      |                 |           |              |
| 62.5            | 32.1             | 29.1            | 21.5      |                 |           |              |
| 100             | 28.0             | 25.0            | 20.1      |                 |           |              |
| 200             | 22.0             | 19.0            | 18.0      |                 |           |              |
| 250             | 20.0             | 17.0            | 17.3      |                 |           |              |

### Note:

Executive standard for the above parameters: Q/DXJ 067-2019

"n/s"=Not Specified

"\*\*"=Unless otherwise customer stated the test results default to not shown in test report but comply with standard