

# 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
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**Packaging**

Cable Length	305.0 m (1000.66 ft) ± 1.5 m (4.92 ft)
Inner Carton Dimensions	416.0 mm × 412.0 mm × 220.0 mm (16.38" × 16.22" × 8.66") (L × W × H)
Packaging Method	305.0 m (1000.66 ft) a carton, one master carton with 2 inner cartons
Net Weight	≥10.5 kg (23.15 lb)
Gross Weight	≥11.5 kg (25.35 lb)

**Compliance**

Executive Standards	Q/DXJ 067-2019, EN50575-2014
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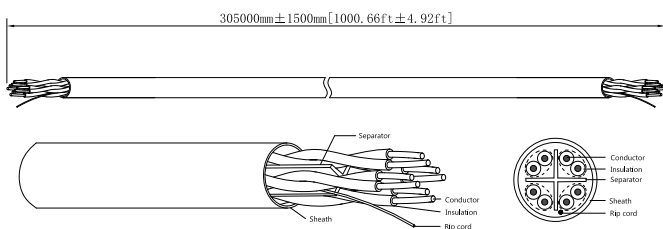
**Certification**

Certification	CPR Eca
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**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			
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	45.0	100±15	
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