

DH-PFM920I-6U-C-100

UTP CAT6 Cable



- 100 m (328 ft)/carton UTP CAT6, power over Ethernet, compatible with one cable
- High-purity oxygen-free copper conductor material
- Customized PVC outer sheath; CE CPR Eca flame retardant class certified
- Top-notch Quality Commitment for 10 Years

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	0.57 mm \pm 0.01 mm (0.0224" \pm 0.0004")
American Wire Gauge	23AWG

Insulation

Material	HDPE
Min. Average Thickness	0.21 mm (0.0083")
Diameter	1.0 mm \pm 0.1 mm (0.0394" \pm 0.004")
Color (4 Pairs)	Blue, white/blue; orange, white/orange; green, white/green; brown, white/brown

Separator

Material	PE
Specification	Translucent 4.5 mm \times 0.4 mm (0.1772" \pm 0.0157")

Rip Cord

Material	Polyester
Specification	500D

Sheath

Material	PVC
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Min. Average Thickness	0.5 mm (0.0197")
Diameter	6.3 mm \pm 0.3 mm (0.2480" \pm 0.0118")
Color	White

Electrical

Max. DC Resistance of a Single Conductor	7.5 Ω /100 m
Min. Insulation Resistance	5000M Ω -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 Ω \pm 15 Ω
Near End Cross Talk	\geq 39.30 dB/100 m @250 MHz
Max. Attenuation	33 dB/100 m @250 MHz
Return Loss	\geq 17.3 dB/100 m @250 MHz

Mechanical

Tensile Strength	Sheath \geq 9 MPa, insulation \geq 16 MPa
Elongation at Break	Sheath \geq 100%, insulation \geq 100%
Installation Bending Radius	>8 times of outer cable diameter
Conductor Elongation at Break	\geq 8%

Environmental

Shrinkage of Insulation	\leq 5%
Color Migration Resistance of Insulation	No migration
Sheath Tensile Strength and Elongation at Break after Aging	\geq 6.3 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	100.0 m (328.08 ft) ±1 m (3.28 ft)
Inner Carton Dimensions	286 mm × 119 mm × 289 mm (11.26" × 4.69" × 11.38") (L × W × H)
Net Weight	4.2 kg ± 0.3 kg (9.26 lb±0.66 lb)
Gross Weight	4.5 kg ± 0.3 kg (9.92 lb±0.66 lb)
Packaging Dimensions	595 mm × 310 mm × 270 mm (23.43" × 12.20" × 10.62") (L × W × H)
Packaging Method	100 m/carton, 4 inner cartons in one package

Compliance

Executive Standards	ISO/IEC 11801-1-2017, IEC 61156-5-2009
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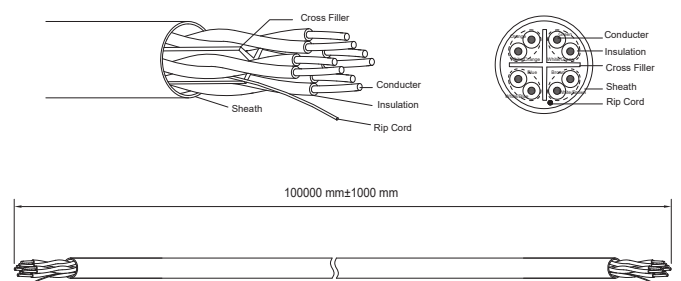
Certification

Certification	CPR Eca
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Ordering Information

Type	Model	Description
Cable Series	DH-PFM920I-6U-C-100	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
1	n/s	n/s	50.0	35.0	n/s
4	552.0	3.8	44.0	23.0	66.3
8	547.0	5.4	41.0	16.9	61.8
10	545.0	6.0	40.0	15.0	60.3
16	543.0	7.6	38.0	10.9	57.2
20	542.0	8.5	37.0	9.0	55.8
25	541.0	9.6	36.0	7.0	54.3
30*	540.6	10.5	35.2	5.5	53.1
31.25	540.0	10.7	35.1	n/s	52.9
62.5	539.0	15.5	32.0	n/s	48.4
100	538.0	19.9	30.0	n/s	45.3
200	537.0	29.1	27.0	n/s	40.8
250	536.0	33.0	26.0	n/s	39.3
PS NEXT ≥ dB	EL FEXT ≥ dB	PS EL FEXT ≥ dB	RL ≥ dB	Delay skew ≤ ns	Zc (Ω)
n/s	n/s	n/s	n/s	n/s	n/s
63.3	56.0	53.0	23.0	45.0	100±15
58.8	49.9	46.9	24.5		
57.3	48.0	45.0	25.0		
54.2	43.9	40.9	25.0		
52.8	42.0	39.0	25.0		
51.3	40.0	37.0	24.3		
50.1	38.5	35.5	23.8		
49.9	38.1	35.1	23.6		
45.4	32.1	29.1	21.5		
42.3	28.0	25.0	20.1		
37.8	22.0	19.0	18.0		
36.3	20.0	17.0	17.3		

Note: Executive standard for the above parameters: ISO/IEC 11801-1-2017
 "n/s"=Not Specified
 "*" = Unless otherwise customer stated the test results default to not shown in test report but comply with standard