

WIREFATH

BULK WIRE

NST-CAT6PL-1000-XXX

U/UTP, 23AWG solid bare copper, CAT 6, CMP

Features

- 23 AWG 4 conductor Cat 6 wire, CMP
- Unshielded twister pair, solid copper conductors
- Sweep frequency up to 550 MHz
- Reel coiled with REELEX technology to ensure tangle-free pull
- Nest in box packaging

Application

- LAN/Network cable
- Digital and analog transmission for data, video, audio and phone
- IEEE 802.3ab 1000BASE-T, 1000 BASE-TX and legacy speeds
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

Electrical Transmission

- ANSI/TIA-568-C.2 (2009)
- ISO/IEC 11801 (Edition 2.2)
- IEC 61156-5 (Edition 2.0)

Flame Test

- NFPA 262 (CMP)

Material and Construction

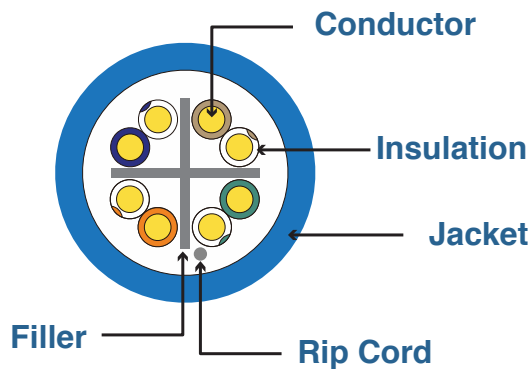
- UL 444
- CSA 22.2 NO.214

EU Directive 2011/65/EC (RoHS2)

EU Directive 2006/95/EC (LVD)

CE compliance date: 2010.01.01

Sectional Drawing



Material and Construction				
Conductor	Material	23AWG solid bare copper		
Insulation	Material of single layer	Fluorinated Ethylene Propylene (FEP)		
	Material of dual layer	Polyolefin (PO)		
		Fluorinated Ethylene Propylene (FEP)		
	Color code & diameter	Blue & white/blue Stripe	0.95 ± 0.02 mm	
		Orange & white/orange stripe	0.96 ± 0.02 mm	
Green & white/green stripe		0.94 ± 0.02 mm		
Brown & white/brown stripe		0.95 ± 0.02 mm		
Twisted	Description	Left hand direction		
Assembly	Description	Left hand direction		
Filler	Material	Polyolefin (PO)		
Rip cord	Material	Polyester multi-yarn		
Jacket	Material	Flame retardant polyvinyl chloride (FRPVC)		
	Diameter	5.6 ± 0.2 mm		
	Thickness	0.40 ± 0.03 mm		
	Color	As ordered		

Usage & Environmental Condition		
Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius		≥ 4 times of overall diameter
Maximum pulling tension		≤ 110 N

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Physical & Electrical Characteristics (at 20°C)

Temperature & voltage rating	75°C / 300V
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω/100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ·Km
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

Material and Construction

Frequency (MHz)	IL	NEXT	PS.NEXT	ACR	PS.ACR	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
	Max. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Max. ns/100m	Max. ns/100m
1	2.03	74.30	72.30	72.28	70.28	67.80	64.80	20.00	570.00	45.00
4	3.78	65.27	63.27	61.49	59.49	55.76	52.76	23.01	552.00	
8	5.32	60.75	58.75	55.43	53.43	49.74	46.74	24.52	546.73	
10	5.95	59.30	57.30	53.35	51.35	47.80	44.80	25.00	545.38	
16	7.55	56.24	54.24	48.68	46.68	43.72	40.72	25.00	543.00	
20	8.47	54.78	52.78	46.31	44.31	41.78	38.78	25.00	542.05	
25	9.51	53.33	51.33	43.83	41.83	39.84	36.84	24.32	541.20	
31.25	10.67	51.88	49.88	41.20	39.20	37.90	34.90	23.64	540.44	
62.5	15.38	47.36	45.36	31.98	29.98	31.88	28.88	21.54	538.55	
100	19.80	44.30	42.30	24.50	22.50	27.80	24.80	20.11	537.60	
150	24.71	41.66	39.66	16.95	14.95	24.28	21.28	18.87	536.94	
200	28.98	39.78	37.78	10.80	8.80	21.78	18.78	18.00	536.55	
250	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.28	
300	36.43	37.14	35.14	0.72	N.A.	18.26	15.26	16.77	536.08	
350	39.79	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92	
400	42.97	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80	
450	46.01	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70	
500	48.94	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61	
550	51.76	33.19	31.19	N.A.	N.A.	12.99	9.99	14.92	535.54	

Values above 250MHz are for information only.