



## ANSI/TIA-568 D.2 Category 6 ISO/IEC 11801 (Swept tested to 550 MHz) F/UTP, 23AWG solid bare copper, CAT.6, CMP

**Part Number: N6EP SH CC 1 RL**

Base Shield Color Length Put Up

See Complete Part Number Legend & Example Below

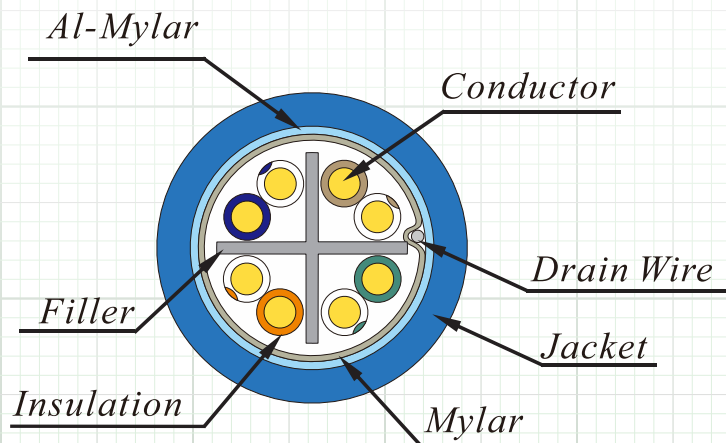
### Product Description:

F/UTP, 23AWG solid bare copper, CAT.6, CMP

With cross filler

Overall metal foil screen with drain wire

Sweep frequency up to 550 MHz



### Applicable Standard:

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 UL 444 LP-Rating 0.5A&0.6A CSA 22.2 NO.214
EU Directive	EU Directive 2011/65/EC (RoHS2) EU Directive 2006/95/EC (LVD) CE compliance date: 2010.01.01

### Usage & Environmental Condition:

Electrical Transmission	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	

**Part # Legend:** (Example: Black, 1000', Reel = **N6EP SH BK 1 RL**) \* Non-Stock, Requires Factory Minimum Run

N	GE	P	SH	CC	1	RL
Northern	Cbl. Type	Rating	AL MY Shield	Color Code	Length	Put Up

Rating Legend	
PLENUM	P

Color Legend	
White	WH
Blue	BL
Yellow	YL
Black	BK
Orange	OR
Red	RD
Green	GN
Gray	GY
Purple	PR*
Pink	PK*

Length Legend	
1000'	1

Put Up Legend	
Reel	RL

Note: Specification subject to change without notice

## ANSI/TIA 568 D.2 Category 6 (Swept frequencies to 550 MHz)



### Material and Construction:

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Fluorinated Ethylene Propylene (FEP)	
	Color code & diameter	Blue & white/blue Stripe	1.06 ± 0.02 mm
		Orange & white/orange stripe	1.01 ± 0.02 mm
		Green & white/green stripe	1.05 ± 0.02 mm
	Brown & white/brown stripe	1.01 ± 0.02 mm	
Twisted	Description	Left hand direction	
Filler	Material	Fluorinated Ethylene Propylene (FEP)	
Assembly	Description	Left hand direction	
Shield	Material	Mylar tape	
Drain wire	Material	24AWG solid tinned copper	
Shield	Material	Al Mylar tape	
	Description	100 % coverage and mylar side facing out	
Jacket	Material	Low smoke flame retardant polyvinyl chloride (LSFRPVC)	
	Diameter	6.80 ± 0.2 mm	
	Thickness	0.43 ± 0.03 mm	
	Color	Per customer`s request	

### Physical & Electrical Characteristics (at 20°C):

Temperature rating	90°C
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 /100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 M • km
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m
Nominal Velocity of Propagation, NVP	71.7%

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## ANSI/TIA 568 D.2 Category 6 (Swept frequencies to 550 MHz)



### Transmission Performance (at 20°C):

Frequency (MHz)	IL dB/100m	NEXT dB/100m	PS.NEXT dB/100m	ACR dB/100m	PS.ACR dB/100m	ACRF dB/100m	PS.ACRF dB/100m	RL dB/100m	Propagation Delay ns/100m	Delay Skew 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.

Note: Specification subject to change without notice