

## ANSI/TIA-568 D.2 Category 6

ISO/IEC 11801 (Swept tested to 650 MHz)

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

**Part Number: N6AR SH CC 1 RL**

Base Shield Color Length Put Up

See Complete Part Number Legend & Example Below

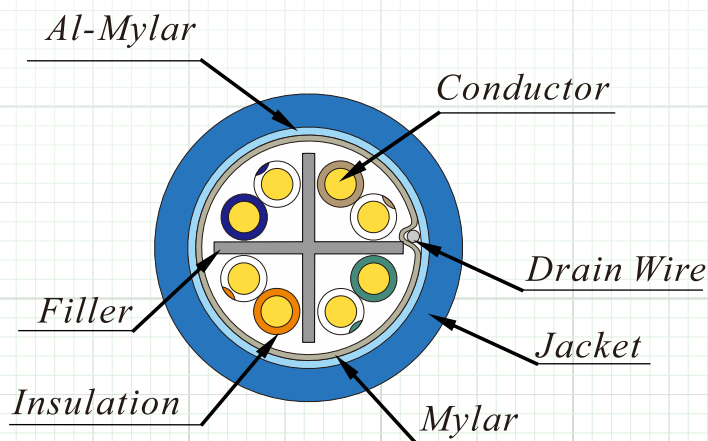
### Product Description:

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

With cross filler

Overall metal foil screen with drain wire

Sweep frequency up to 650 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	UL 1666 (CMR)
Material and Construction	UL 444
	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 = **N6ARSHBK1RL**) \* Non-Stock, Requires Factory Minimum Run

N	6A	R	SH	CC	1	RL
Northern	Cbl. Type	Rating	AL MY Shield	Color Code	Length	Put Up

Rating Legend	
RISER	R

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 6A (Swept frequency up to 650 MHz)



### Material and Construction:

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Polyolefin (PO)	
	Color code & diameter	Blue & white/blue Stripe	1.15 ± 0.02 mm
		Orange & white/orange stripe	1.11 ± 0.02 mm
		Green & white/green stripe	1.15 ± 0.02 mm
Brown & white/brown stripe		1.11 ± 0.02 mm	
Twisted	Description	Left hand direction	
Filler	Material	Polyolefin (PO)	
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	Flame retardant polyvinyl chloride (FRPVC)	
	Diameter	7.60 ± 0.2 mm	
	Thickness	0.55 ± 0.05 mm	
	Color	Per customer`s request	

### 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• m
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m
Nominal Velocity of Propagation, NVP	67.5%

Note: Specification subject to change without notice

## ANSI/TIA 568 D.2 CATEGORY 6A (Swept frequency up to 650 MHz)



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

Frequency (MHz)	IL	NEXT	PS. NEXT	ACR	PS. ACR	ACRF	PS. ACRF	RL	Propagation Delay	Delay Skew	PS. ANEXT	PS. AACRF
	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	Min. dB/100m	Min. dB/100m
1	2.08	74.30	72.30	72.22	70.22	67.80	64.80	20.00	570.00	45.00	67.00	67.00
4	3.80	65.27	63.27	61.47	59.47	55.76	52.76	23.01	552.00		67.00	66.16
8	5.31	60.75	58.75	55.44	53.44	49.74	46.74	24.52	546.73		67.00	60.14
10	5.93	59.30	57.30	53.37	51.37	47.80	44.80	25.00	545.38		67.00	58.20
16	7.49	56.24	54.24	48.75	46.75	43.72	40.72	25.00	543.00		67.00	54.12
20	8.38	54.78	52.78	46.41	44.41	41.78	38.78	25.00	542.05		67.00	52.18
25	9.38	53.33	51.33	43.95	41.95	39.84	36.84	24.32	541.20		67.00	50.24
31.25	10.50	51.88	49.88	41.37	39.37	37.90	34.90	23.64	540.44		67.00	48.30
62.5	14.99	47.36	45.36	32.37	30.37	31.88	28.88	21.54	538.55		65.56	42.28
100	19.14	44.30	42.30	25.17	23.17	27.80	24.80	20.11	537.60		62.50	38.20
150	23.68	41.66	39.66	17.98	15.98	24.28	21.28	18.87	536.94		59.86	34.68
200	27.58	39.78	37.78	12.21	10.21	21.78	18.78	18.00	536.55		57.98	32.18
250	31.07	38.33	36.33	7.26	5.26	19.84	16.84	17.32	536.28		56.53	30.24
300	34.27	37.14	35.14	2.88	0.88	18.26	15.26	16.77	536.08		55.34	28.66
350	37.25	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92		54.34	27.32
400	40.05	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80		53.47	26.16
450	42.71	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70		52.70	25.14
500	45.26	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61		52.02	24.22
550	47.70	33.19	31.19	N.A.	N.A.	12.99	9.99	14.92	535.54		51.39	23.39
600	50.05	32.63	30.63	N.A.	N.A.	12.24	9.24	14.66	535.47	50.83	22.64	
650	52.33	32.11	30.11	N.A.	N.A.	11.54	8.54	14.42	535.41	50.31	21.94	

Values above 500MHz are for information only.

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