

7814A - Belden Category 6 UTP Cable

		<p style="text-align: center;">For more information please call 1-800-Belden1</p> <p style="text-align: center;"><u>See Put-ups and Colors</u></p> <p style="text-align: center;">Related Documents: No.8 for Data Twist Cables (Modified Western Electric).pdf</p>
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Description:

24 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, rip cord, see color code chart (below), PVC jacket (blue or grey).

SUITABLE APPLICATIONS:

Suitable Applications	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 250MHz Category 6
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PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

INSULATION:

Insulation Material	PO - Polyolefin
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Pair Color Code Chart:

Pair Number	Insulation Color	
	Wire 1	Wire 2
1	Blue	White with Blue Stripe
2	Orange	White with Orange Stripe
3	Green	White with Green Stripe
4	Brown	White with Brown Stripe

OVERALL CABLING:

Overall Cabling Fillers	Central Spline
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OUTER SHIELD:

Outer Shield Material	Unshielded
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OUTER JACKET:

Outer Jacket Material	PVC - Polyvinyl Chloride
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Outer Jacket Ripcord	Yes
OVERALL NOMINAL DIAMETER:	
Overall Nominal Diameter	5.8 mm
MECHANICAL CHARACTERISTICS:	
Operating Temperature Range	- 20°C To + 75°C
Bulk Cable Weight	45 kg/km
Max. Recommended Pulling Tension	110 N
Min. Bend Radius (Install)	23.2 mm
APPLICABLE SPECIFICATION AGENCY COMPLIANCE:	
APPLICABLE STANDARDS:	
NEC/(UL) Specification	CM
NEC Articles	800
CEC/C(UL) Specification	CM
IEC Specification	11801 Category 6
EU RoHS Compliant (Y/N)	Y
EU RoHS Compliance Date	Sept 2007
TIA Specification	568-C.2 Category 6
Other Specification	NEMA WC-63.1 Category 6, UL verified to Category 6
FLAME TEST:	
UL Flame Test	UL1685 UL Loading
SUITABILITY:	
Suitability – Indoor (Y/N)	Y
Suitability - Outdoor (Y/N)	N
Sunlight Resistance (Y/N)	N
Oil Resistance	N
Non-halogenated	N
PLENUM/NON-PLENUM:	
Plenum (Y/N)	N
ELECTRICAL CHARACTERISTICS:	
Nom. Mutual Capacitance @ 1 KHz	5.6 nF/100m
Maximum Capacitance Unbalance	330 pF/100m
Nominal Velocity of Propagation	70 %
Maximum Delay @ 100 MHz	538 ns/100m
Maximum Delay Skew	45 ns/100m
Maximum Conductor DC Resistance @ 20 Deg.C	9.38 Ohms/100m

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Nominal Conductor DC Resistance @ 20 Deg.C	7.5 Ohms/100m
Maximum DCR Unbalance @ 20 Deg.C	5 %
Characteristic Impedance	100 ± 15 Ohms
Maximum Intended Operating Voltage	80 V RMS

ELECTRICAL CHARACTERISTICS - PREMISES:

Premise Cable Electricals Table 1:

Frequency (MHz)	Attenuation (dB/100m)		NEXT (dB)		PSNEXT (dB)		Return Loss (dB)		ELFEXT (dB)		PSELFEXT (dB)	
	Max.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical
1	2.0	1.8	74.3	95	72.3	93	20.0	35	67.8	87	64.8	82
4	3.8	3.5	65.3	92	63.3	90	23.0	36	55.8	82	52.8	75
8	5.3	5.0	60.8	90	58.8	88	24.5	36	49.7	77	46.7	69
10	6.0	5.6	59.3	90	57.3	88	25.0	33	47.8	74	44.8	67
16	7.6	7.2	56.2	83	54.2	81	25.0	34	43.7	68	40.7	63
20	8.5	8.0	54.8	80	52.8	78	25.0	33	41.8	67	38.8	61
25	9.5	9.0	53.3	76	51.3	74	24.3	33	39.8	73	36.8	61
31.25	10.7	10.0	51.9	70	49.9	68	23.6	32	37.9	64	34.9	57
62.5	15.4	14.5	47.4	68	45.4	66	21.5	31	31.9	57	28.9	49
100	19.8	18.5	44.3	65	42.3	63	20.1	30	27.8	53	24.8	47
155	25.2	24.0	41.4	68	39.4	66	18.8	31	24.0	48	21.0	41
200	29.0	26.8	39.8	65	37.8	63	18.0	22	21.8	43	18.8	38
250	32.8	30.2	38.3	60	36.3	59	17.3	23	19.8	43	16.8	36

Frequency (MHz)	ACR (dB)		PSACR (dB)	
	Min.	Typical	Min.	Typical
1	72.3	93.3	70.3	91.3
4	61.5	88.8	59.5	86.8
8	55.4	85.2	53.4	83.2
10	53.3	84.4	51.3	82.4
16	48.7	75.8	46.7	73.8
20	46.3	72.0	44.3	70.0
25	43.8	67.0	41.8	65.0
31.25	41.2	59.8	39.2	57.8
62.5	32.0	53.4	30.0	51.4
100	24.5	46.2	22.5	44.2
155	16.3	44.0	14.3	42.0
200	10.8	37.6	8.8	35.6
250	5.5	29.0	3.5	28.0

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NOTES:

Notes

Jacket sequentially marked.
Third party verified to TIA -568-C.2, Category 6.
Typical Values are for reference only.

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color
7814A 006A1000	4 PR #24 PO PVC	A1000	30	BLU
7814A 008A1000	4 PR #24 PO PVC	A1000	30	GRY

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