

SPECIFICATION SHEET

PART NUMBER : C6ABC50S-BL-1000

STYLE : 75°C 300V
COMMUNICATION CABLE

DESCRIPTION: Category 6A Bulk Cable, 650 MHz, Shielded, PVC – Blue 23 AWG, Solid, 4 Pair, F/UTP, CMR

RECOGNIZED : UL

BLACK BOX NETWORK SERVICES

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STYLE	75°C 300V COMMUNICATION CABLE	
SIZE	F/UTP 23AWGx4P	ESTABLISHED DATE : Mar./13/2015
STANDARD : UL444 & ISO/IEC 11801 CLASS D & ANSI/TIA-568-C.2 CAT 6A EN71-3 & EPA3050B & 2002/95/EC (RoHS) UL SAFETY VOL.1 SEC. 46. APPLICATION : LAN CABLE ARE SUITABLE FOR PERFECT AUDIO DATA AND VIDEO OF TRANSFER FOR HORIZONTAL NETWORK CONSTRUCTION :		
CONDUCTOR	SIZE	23AWG
	CONSTRUCTION	SOLID BARE COPPER
	COND. DIAM.	1/0.566±0.02 mm 0.022283±0.00078 inch
INSULATION	AVG. THICK.	0.27 mm 0.0106inch
	MIN. THICK.	0.24 mm 0.00944inch
	DIAMETER	1.12 ± 0.05 mm 0.04409±0.00196 inch
	MATERIAL	HDPE
	COLOR CODES	1.BLUE x White/Blue (Stripe) 2.ORANGE x White/Orange (Stripe) 3.GREEN x White/Green (Stripe) 4.BROWN x White/Brown (Stripe)
CABLING	PAIR STRANDED	2 CORES STRANDED
	FILLER (SPLINE)	Yes
	ASSEMBLY STRANDED	4 PAIR STRANDED
BINDER	BINDER MATERIAL	Polyester tape
SHIELDED	Primary overall shield & material	AL-Foil , 25% overlap
	Drain wire Nom	26AWG solid tinned copper
JACKETED	AVG. THICK.	0.5 mm 0.01968inch
JACKETED PACKAGING	MIN. THICK.	0.4 mm 0.01574inch
	DIAMETER	7.2 ± 0.30 mm 0.283±0.01181 inch
	MATERIAL	PVC
	COLOR	Blue
	RIP CORD	Yes
	Reelex or Spool	Spool

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ELECTRICAL & PHYSICAL PROPERTIES :			
ITEM		23AWG x 4P	
RATING TEMP VOLTAGE		75°C 300V	
CONDUCTOR RESISTANCE		9.38 OHM/100m/20°C MAX.	
MUTUAL CAPACITANCE		56 pF/M MAX.	
DIELECTRIC STRENGTH		AC 1.5 KV/2S.	
SPARK TEST		DC 2.5 KV	
INSULATION	UNAGED	TENSILE STRENGTH	2400 PSI MIN. (1.69 Kg/m m ²)
		ELONGATION	300% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 75%(100°Cx48HRS)
		ELONGATION	UNAGED MIN. 75%(100°Cx48HRS)
JACKETED	UNAGED	TENSILE STRENGTH	2000 PSI MIN.(1.41 Kg/m m ²)
		ELONGATION	100% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 75%(100°Cx168HRS)
		ELONGATION	UNAGED MIN. 50%(100°Cx168HRS)
INSULATION SHRINKBACK		150mm, 121°C±1°Cx1HR≤9.5mm	
COLD BEND TEST		-20°Cx4HRS NO CRACK	
FLAME RETARDANT TEST		CMR	
AC LEAKAGE CURRENT THROUGH OVERALL JACKET		AC 1500V≤10 mA	
DC RESISTANCE UNBALANCE		2% MAX.	
PAIR-TO-GROUND CAPACITANCE UNBALANCE		330 pF/100m MAX.	
STRUCTURAL RETURN LOSS		N/A	
NOMINAL VELOCITY OF PROPAGATION (NVP)		65%	
PROPAGATION DELAY		500 MHz 535.6nS/100m MAX.	
DELAY SKEW		1 ~ 500 MHz 45nS/100m MAX.	
PRINTING LEGEND : (0000~1000FT) BLACK BOX CORPORATION GUARANTEED FOR LIFE (724)746-5500 --- CATEGORY 6A SHIELDED --- E196163-L C(UL)US CMR F/UTP 75°C 4PR 23AWG TIA-568-C.2 CAT 6A TESTED TO 650 MHZ MM-YY XXXXFT			
Note : 1) ★: Factory ID. 2) MM-YY: MM is month,YY is year.			

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Electrical performance

ITEM(dB) Frequency (MHz)	Characteristic Impedance Upper limit Zu (Ω)	Characteristic Impedance Lower limit Zl (Ω)	IL MAX. (dB/100m)	NEXT MIN. (dB)	PS. NEXT MIN. (dB)	ACRF MIN. (dB/100m)	PS. ACRF MIN. (dB/100m)	R.L. MIN. (dB)
1	-	-	2.1	74.3	72.3	67.8	64.8	20.0
4	115.2	86.8	3.8	65.3	63.3	55.8	52.8	23.0
8	112.6	88.8	5.3	60.8	58.8	49.7	46.7	24.5
10	111.9	89.4	5.9	59.3	57.3	47.8	44.8	25.0
16	111.9	89.4	7.5	56.2	54.2	43.7	40.7	25.0
20	111.9	89.4	8.4	54.8	52.8	41.8	38.8	25.0
25	112.9	88.5	9.4	53.3	51.3	39.8	36.8	24.3
31.25	114.1	87.7	10.5	51.9	49.9	37.9	34.9	23.6
62.5	118.3	84.5	15.0	47.4	45.4	31.9	28.9	21.5
100	121.9	82.0	19.1	44.3	42.3	27.8	24.8	20.1
200	128.8	77.6	27.6	39.8	37.8	21.8	18.8	18.0
250	131.5	76.0	31.1	38.3	36.3	19.8	16.8	17.3
300	133.9	74.7	34.3	37.1	35.1	18.3	15.3	16.8
400	138.2	72.3	40.1	35.3	33.3	15.8	12.8	15.9
500	142.0	70.4	45.3	33.8	31.8	13.8	10.8	15.2
650	147.0	68.0	52.3	32.1	30.1	11.5	8.5	14.4

Remark :

1. Cable that meet the requirements of the template are not required to be measured for return loss; alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.
2. Electrical characteristics between 500 ~ 650MHZ is only for reference, not as acceptance criteria.