Part #: CAT6A-BULK-BLUE-NPC

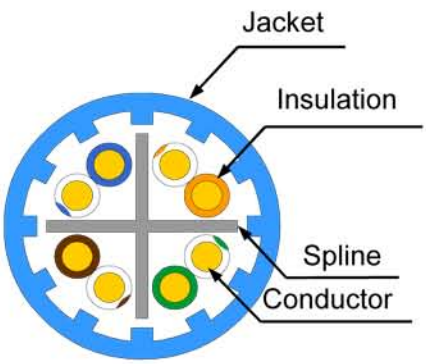
Construction: **Unshielded Twisted Pair*

Item #	Flame Rating	Jacket	Color	Wt. Lb. / Wt.Kg		O.D.	Packaging Put-Up
TUR2304S03xx	CMR	PVC Riser	xx	44.53	20.2	8.40 ± .2mm	1000' Wood Reel
TUP2304S03xx	CMP	Plenum	xx	51.81	23.5	8.40 ± .2mm	1000' Wood Reel

xx= (BU) Blue, (WH) White

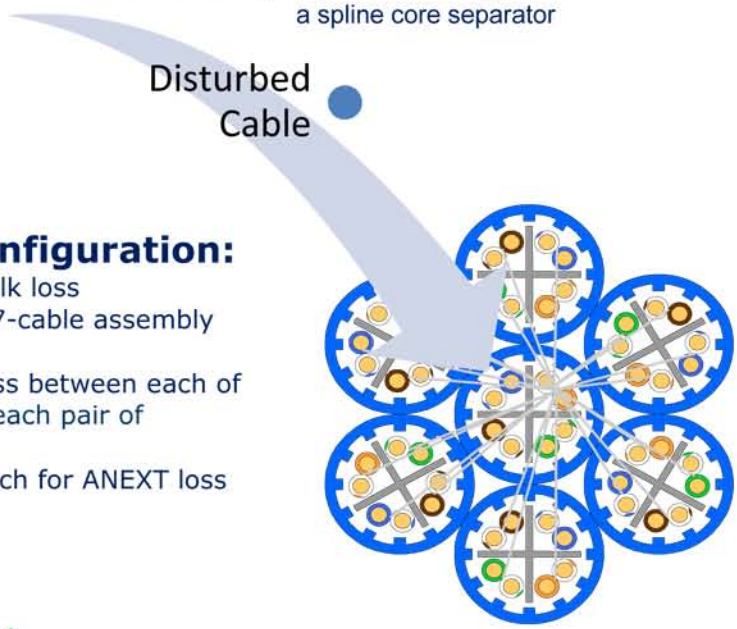
PRODUCTS FEATURE

- SUPPORTS IEEE 802.3an 10GBASE-T STANDARD, AND TIA/EIA 568-B.2-10 DRAFT.7
- ALL MATERIALS COMPLY WITH ROHS STANDARD
- TEST RANGE FROM 1 TO 750 MHZ
- GREAT PERFORAMNCE WITH HEADROOM OF UP 6Db



CONSTRUCTION RISER/PLENUM

Jacket: Low-smoke, flame-retardant PVC
Insulation: PE/FEP
Spline: PE/FEP
Conductor: 23 AWG Solid bare copper
Cable assembly: 4 pairs cabled together with a spline core separator



6-around-1 cable test configuration:

This test is for measuring alien crosstalk loss between pairs of adjacent cables in a 7-cable assembly consisting of the same design.
Measure the ANEXT loss and AFEXT loss between each of the pairs of the ***disturbed*** cable and each pair of every disturbing cable.
This will result in 96 measurements each for ANEXT loss and AFEXT loss.

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ELECTRICAL PROPERTIES FOR BOTH RISER AND PLENUM

CONDUCTOR DCR: 9.38W/100M@20°
DCR UNBALANCE: 3%MAX
CAPACITANCE UNBALANCE
PAIR/GROUND: 330PF/100M MAX
CHARACTERISTIC
IMPEDANCE: 100Ω ±10%(10-550MHz)
INPUT IMPEDANCE: 100Ω ±12%(1-100MHz)
100Ω ±15%(>100-350MHz)
100Ω ±22%(>350MHz)
RETURN LOSS: 20+7log(f) dB MIN (1-10MHz)
27 dB MIN(10-20MHz)
27-7log(f/20)dB MIN (>20MHz)
INSERTION LOSS: $1.8\sqrt{f}+0.01f+0.2/\sqrt{f}$ dB/100M MAX
(ATTENUATION) NEAR END(NEXT) CROSSTALK:
48.3 - 15 log(f/100) dB/100M MIN

POWER SUM NEAR END CROSSTALK (PS NEXT):
46.3- 15log(f/100) dB/100M MIN
ATTENUATION TO CROSSTALK RATIO FAR END(ACRF):
31.8- 20log(f/100) dB/100M MIN
POWER SUM ATTENUATION TO CROSSTALK RATIO FAR END (PS ACRF): 28.8- 20 log(f/100) dB/100M MIN
POWER SUM ALIEN NEAR END CROSSTALK (PS ANEXT):
62.5- 15 log(f/100) dB/100M MIN
POWER SUM ALIEN ATTENUATION TO CROSSTALK RATIO FAR END (PS AACRF): 38.2- 20 log(f/100) dB/100M MIN 67dB MIN
PROPAGATION DELAY: 534 + 36/ ns/100m MAX
PROPAGATION DELAY SKEW: 25 ns/100m MAX
NOMINAL VELOCITY OF PROPAGATION (NVP):
70% PLENUM 66% NON-PENUM
NOTE: Attenuation To Crosstalk Ratio Far End (ACRF) was previously referred to as Equal Level Far End Crosstalk (ELFEXT)
WHERE f = FREQUENCY IN MHz from 1 to 500 MHz

REFERENCE ELECTRICAL CHARACTERISTICS

FREQ	INS LOSS	RETURN LOSS	NEXT	PS NEXT	ACRF	PS ACRF	PROP DELAY	ALIEN CROSSTALK	
								PS ANEXT	PS AACRF
(MHz)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)
	max	min	Min	min	min	min	max	min	min
1	2	20	78.3	76.3	71.8	68.8	570	67	67
4	3.7	24.2	69.3	67.3	59.8	56.8	552	67	66.2
8	5.2	26.3	64.8	62.8	53.7	50.7	546.7	67	60.1
10	5.9	27	63.3	61.3	51.8	48.8	545.4	67	58.2
16	7.4	27	60.2	58.2	47.7	44.7	543	67	54.1
20	8.3	27	58.8	56.8	45.8	42.8	542	67	52.2
25	9.3	26.3	57.3	55.3	43.8	40.8	541.2	67	50.2
31.25	10.4	25.6	55.9	53.9	41.9	38.9	540.4	67	48.3
62.5	14.9	23.5	51.4	49.4	35.9	32.9	538.6	65.6	42.3
100	19	22.1	48.3	46.3	31.8	28.8	537.6	62.5	38.2
155	24	20.8	45.4	43.4	28	25	536.9	59.6	34.4
200	27.5	20	43.8	41.8	25.8	22.8	536.5	58	32.2
250	31	19.3	42.3	40.3	23.8	20.8	536.3	56.5	30.2
300	34.2	18.8	41.1	39.3	22.3	19.3	536.1	55.3	28.7
350	37.2	18.3	40.1	38.1	20.9	17.9	535.9	54.3	27.3
400	40	17.9	39.3	37.3	19.8	16.8	535.8	53.5	26.2
500	45.3	17.5	37.8	35.8	17.8	14.8	535.6	52	24.2
550	47.7	17.2	37.2	35.2	-	-	-	-	-
600	50.1	16.9	36.6	34.6	-	-	-	-	-
650	52.4	16.7	36.1	34.1	-	-	-	-	-
750	56.8	16	35.2	33.2	-	-	-	-	

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