

# SPECIFICATIONS

- DESCRIPTION: CATEGORY 6A CABLE, CONSISTING OF 4 PAIRS, 23 AWG , SHIELDED WITH AN OVERALL JACKET. CMR, c(UL)us TYPE FT4 PER UL 444
- CONDUCTOR: 23 AWG SOLID BARE ANNEALED COPPER (.0226" NOM OD) INSULATION: HDPE
- PAIRING: COMPONENTS ARE TWISTED INTO PAIRS WITH VARYING LEFT HAND LAYS TO MINIMIZE CROSSTALK.  

PAIR #	COLOR
1	BLUE-WHITE
2	ORANGE-WHITE
3	GREEN-WHITE
4	BROWN-WHITE
- CABLING: THE FOUR (4) TWISTED PAIRS ARE CABLED AROUND A 24 AWG DRAIN WIRE. EACH PAIR IS INDIVIDUALLY SHIELDED WITH AN ALUMINUM FOIL WITH NO SEPARATOR
- OVERALL JACKET: FLAME RETARDENT PVC - SEE COLOR TABLE FOR CABLE COLOR  
.310" NOM OD
- MARKING: OCC (www.occfiber.com) -A-# \*\*\*\* FEET SHIELDED CATEGORY 6A 4 PR/23 AWG U/FTP RISER CABLE C(UL)US CMR 75C --- ETL VERIFIED TO TIA 568-C.2 CAT 6A --- ## ## #####

WHERE # = PLANT ID LETTER ("L", "J", OR "F")

\*\*\*\* = SEQUENTIAL FOOTAGE MARK FOLLOWED BY "FEET"

## ## = MONTH - YEAR

##### = SHOP ORDER NUMBER

- AGENCY APPROVAL: UNDERWRITERS LABORATORIES, INC. TYPE CMR, COMMUNICATIONS RISER CABLE, LISTED AS BEING SUITABLE FOR USE IN A VERTICAL RUN, IN A SHAFT OR FROM FLOOR TO FLOOR PER UL 444. ALSO LISTED AS HAVING FIRE-RESISTANT CHARACTERISTICS CAPABLE OF PREVENTING THE CARRYING OF FIRE FROM FLOOR TO FLOOR IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE.

- TYPICAL CATEGORY 6A ELECTRICAL CHARACTERISTICS\*:  
 CHARACTERISTIC IMPEDANCE: 100 ± 15 W (1 TO 500 MHz.)  
 MAXIMUM CONDUCTOR RESISTANCE: 8.9 W/100 METERS @ 20°C  
 MAXIMUM RESISTANCE UNBALANCED: 3%  
 MAXIMUM MUTUAL CAPACITANCE: 5.6 nF/100 METERS @ 1kHz.  
 MAXIMUM CAPACITANCE UNBALANCED: 330 pF/100 METERS  
 MAXIMUM DELAY SKEW: 35 ns/100 METERS  
 NOMINAL VELOCITY OF PROPAGATION: 75% OF LIGHT SPEED

EQUATIONS FOR SWEEPED FREQUENCIES GOVERN LIMITS. VERIFIED TO MEET CAT 6A TIA 568-C.2 PERFORMANCE REQUIREMENTS PER THE VERIFICATION REQUIREMENTS DEFINED IN E108971.

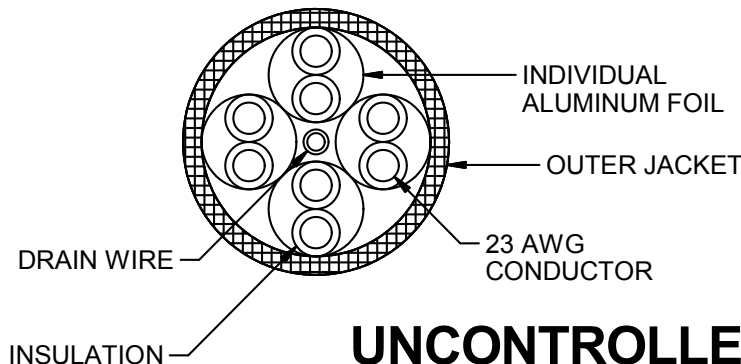
- PRODUCT APPROVAL REQUIRES CERTIFICATION OF COMPLIANCE TO E.U. RoHS DIRECTIVE 2002/95/EC

"OPTICAL CABLE CORPORATION (OCC) RESERVES THE RIGHT TO REVISE ANY COPPER CABLE SPECIFICATIONS."

REVISION HISTORY				
REV	SHT	DESCRIPTION	DATE	CHECKED
A	ALL	RELEASE NEW	9/10/10	NEW RBS
B	-	UPDATED ELECTRICAL PERFORMANCE TABLE AND NOTES	4/5/11	SV

# ELECTRICAL PERFORMANCE

Frequency (MHz.)	Insertion Loss max dB/100 meters	NEXT Loss Min. (dB)	PSNEXT Loss Min. (dB)	ACR Min. (dB)	PSACR Min. (dB)	ACR-F Min. (dB)	PSACRF Min. (dB)	Return Loss Min. (dB)	Propagation Delay Max. (ns)	Delay Skew Max. (ns)	*TCL Min. (dB)	*ELTCTL Min. (dB)	PSANEXT Loss Min. (dB)	PSAACRF Loss Min. (dB)
1	2.1	74.3	72.3	72.2	70.2	73.8	70.8	20	570	35	50	35	77	77
4	3.8	74.3	72.3	70.5	68.5	61.8	58.8	23	552	35	44	23	77	76.2
10	5.9	74.3	72.3	68.3	66.3	53.8	50.8	25	545	35	40	16.9	77	68.2
16	7.5	74.2	71.2	66.6	63.6	49.7	46.7	25	543	35	38	15	77	64.1
20	8.4	72.8	69.8	64.3	61.3	47.8	44.8	25	542	35	37	10.9	77	62.2
31.25	10.5	69.9	66.9	59.1	56.1	43.9	40.9	23.6	540	35	35.1	9	77	58.3
62.5	15.0	65.4	62.4	49.9	46.9	37.9	34.9	21.5	539	35	32	7	75.6	52.3
100	19.1	62.3	59.3	42.4	39.4	33.8	30.8	20.1	538	35	30	5.5	72.5	48.2
200	27.6	57.8	54.8	28.6	25.6	27.8	24.8	18	537	35	27	n/s	68	42.2
250	31.1	56.3	53.3	23.3	20.3	25.8	22.8	17.3	536	35	26	n/s	66.5	40.2
300	34.3	55.1	52.1	18.5	15.5	24.3	21.3	16.8	536	35	25.2	n/s	65.3	38.7
350	37.2	54.1	51.1	14.2	11.2	22.9	19.9	16.3	536	35	24.6	n/s	64.3	37.3
400	40.1	53.03	50.3	10.1	7.1	21.8	18.8	15.9	536	35	24	n/s	63.5	36.2
500	45.3	51.8	48.8	2.7	-	19.8	16.8	15.2	536	35	23	n/s	62	34.2



## CABLE COLOR TABLE

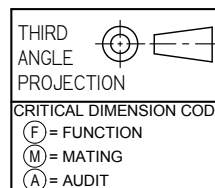
OCC-UF6A4R-01	YELLOW
OCC-UF6A4R-05	BLUE
OCC-UF6A4R-07	WHITE
OCC PART NUMBER	JACKET COLOR

**UNCONTROLLED COPY**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS ±1/32" ANGLES ±1/2" 3 PLACE DECIMALS ±.005" 2 PLACE DECIMALS ±.01"



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MATERIAL	SEE NOTES AND TABLE	DRAWN	D.A.HOLBERT	DATE	9/10/10
FINISH	SEE NOTES AND TABLE	CHECKED	R.B.SMITH	DATE	9/11/10
		ENGINEER	J.YANIK	DATE	9/10/10
		APPROVED	S.VADEN	DATE	5/20/11
		PREVIOUS DWG			
		NEXT DWG		FILENAME	C110331B.dwg

DWG TITLE		CABLE, CAT 6A, 23 AWG, 4 PR, U/FTP, RISER, CMR	
SIZE	B	DWG NO.	C110331
SCALE	NONE	SHEET	1 OF 1
REV	B		