

# SPECIFICATIONS

- DESCRIPTION:** CATEGORY 5e, POWER SUM CABLE CONSISTING OF 4 PAIRS, 24 AWG, UNSHIELDED WITH A LOW SMOKE PVC JACKET. FT6 c(UL)us CMP PER UL 444.
- CONDUCTOR:** 24 AWG SOLID BARE COPPER (.0201" NOM OD) INSULATION: FEP .035" NOM OD, .0075" AVG WALL
- PAIRING:** COMPONENTS ARE TWISTED INTO PAIRS WITH VARYING LEFT HAND LAYS TO MINIMIZE CROSSTALK. FOUR PAIRS ARE THEN CABLED TOGETHER USING A LEFT HAND LAY.

PAIR #	COLOR
1	BLU PAIRED WITH WHT/BLU
2	ORG PAIRED WITH WHT/ORG
3	GRN PAIRED WITH WHT/GRN
4	BRN PAIRED WITH WHT/BRN

- OVERALL JACKET:** LOW SMOKE PVC, SEE COLOR TABLE FOR CABLE COLOR  
.180" NOM OD  
A RIPCORD IS PULLED IN UNDER JACKET

- MARKING:** THE CABLE MUST INCLUDE THE FOLLOWING PRINT LEGEND: CATEGORY 5e --- 4PR/24 FT6 c(UL)us CMP - (UL) VERIFIED TO CAT 5e TIA 568-C.2 - Z/YY (XXXX) - Mx - R# - NNNN WHERE Z = MONTH OF MFG.  
YY = YEAR OF MFG.  
XXXX = JOB NUMBER  
x = RESPPOOL MACHINE #  
# = MASTER REEL #  
NNNN = SEQUENTIAL FOOTAGE MARKERS

- ALTERNATE MARKING:** -A- #\*\*\*\* FEET CAT 5e CMP (UL) C(UL) 4 PR 24 AWG PLENUM --- VERIFIED (UL) CAT 5e TIA 568-C.2 --- ## ## ##### WHERE # = PLANT ID LETTER ("L", "J", OR "F")  
\*\*\*\* = SEQUENTIAL FOOTAGE MARK FOLLOWED BY "FEET"  
## ## = MONTH - YEAR  
##### = TRACEABILITY CODE (eg. 241425J2 WHERE 24 = DAY OF MONTH, 1425 = 02:25 PM IN MILITARY TIME, J2 = JACKETING LINE #2)

- AGENCY APPROVAL:** UNDERWRITERS LABORATORIES, INC. TYPE CMP, COMMUNICATIONS PLENUM CABLE, LISTED AS BEING SUITABLE FOR USE IN DUCTS, PLENUMS, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR PER UL 444. ALSO LISTED AS HAVING ADEQUATE FIRE-RESISTANT AND LOW SMOKE-PRODUCING CHARACTERISTICS, IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE.

- CATEGORY 5e WORST CASE ELECTRICAL CHARACTERISTICS\*:**  
CHARACTERISTIC IMPEDANCE: 100 ± 15 Ω (1 TO 100 MHz.)  
MAXIMUM CONDUCTOR RESISTANCE: 9.38 Ω/100 METERS @ 20°C  
MAXIMUM RESISTANCE UNBALANCED: 5%  
MAXIMUM MUTUAL CAPACITANCE: 5.6 nF/100 METERS @ 1kHz.  
MAXIMUM CAPACITANCE UNBALANCED: 330 pF/100 METERS  
MAXIMUM DELAY SKEW: 30 ns/100 METERS  
NOMINAL VELOCITY OF PROPOGATION: 70%

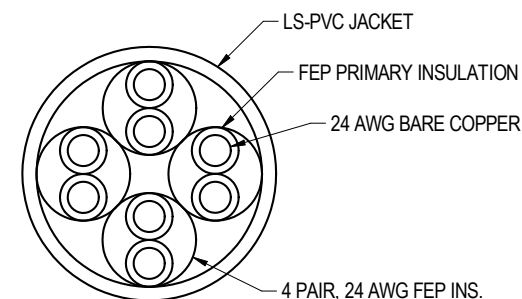
\* FREQUENCIES BEYOND TIA AND ISO REQUIREMENTS ARE FOR INFORMATION ONLY. DISCRETE VALUES ARE FOR INFORMATION ONLY. EQUATIONS FOR SWEEPED FREQUENCIES GOVERN LIMITS. VERIFIED TO MEET CAT 5e TIA-568-C.2 PERFORMANCE REQUIREMENTS PER THE VERIFICATION REQUIREMENTS DEFINED IN SUPPLIERS UL/ETL FILE.

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

# ELECTRICAL PERFORMANCE

FREQUENCY (MHz.)	INSERTION LOSS MAX (dB/100 m)	NEXT LOSS MIN (dB)		ACR MIN. (dB)		ELFEXT MIN. (dB)		RETURN LOSS MIN. (dB)	DELAY MAX (ns)
		WP	PS	WP	PS	WP	PS		
1.0	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0	570
4.0	4.1	56.3	53.3	52.2	49.2	51.8	48.8	23.0	552
8.0	5.8	51.8	48.8	46.0	43.0	45.7	42.7	24.5	547
10.0	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0	545
16.0	8.2	47.2	44.2	39.0	36.0	39.7	36.7	25.0	543
20.0	9.3	45.8	46.8	36.5	33.5	37.8	34.8	25.0	542
25.0	10.4	44.3	45.3	33.9	30.9	35.8	32.8	24.3	541
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6	540
62.5	17.0	38.4	35.4	21.4	18.4	27.9	24.9	21.5	539
100.0	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1	538
155.0	28.1	32.4	29.4	4.3	1.3	20	12.0	18.8	537
200.0	32.4	30.8	27.8	-	-	17.8	14.8	18	537
250.0	36.9	29.3	26.3	-	-	15.8	12.8	17.3	536
300.0	40.5	29.1	28.1	-	-	14.3	11.3	16.8	536
350.0	44.3	28.1	27.1	-	-	12.9	9.9	16.3	536

THE CABLE IS SWEEP TESTED THROUGH 350 MHz. THIS CABLE MEETS INTERNATIONAL REQUIREMENTS FOR NON-FITTED INPUT IMPEDANCE



## CABLE COLOR TABLE

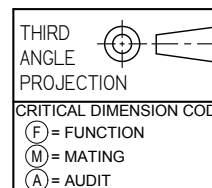
OCC-U5E4PLM-01	YELLOW
OCC-U5E4PLM-02	BLACK
OCC-U5E4PLM-03	RED
OCC-U5E4PLM-04	GREEN
OCC-U5E4PLM-05	BLUE
OCC-U5E4PLM-06	GRAY
OCC-U5E4PLM-07	WHITE
OCC-U5E4PLM-08	VIOLET
OCC-U5E4PLM-09	ORANGE
OCC PART NUMBER	JACKET COLOR

# UNCONTROLLED COPY

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



33 Superior Way  
Swannanoa, NC 28778  
Phone: 828-298-2260  
Fax: 828-298-2487  
www.occfiber.com



MATERIAL SEE NOTES AND TABLES	CHECKED J.MALTAIS	DATE 11/14/08
FINISH SEE NOTES AND TABLES	ENGINEER J.YANIK	DATE 9/10/08
	APPROVED S.VADEN	DATE 5/20/11
	PREVIOUS DWG	
	NEXT DWG	FILENAME C109088D.dwg

DWG TITLE CABLE, CATEGORY 5e, 24 AWG, 4 PR, UNSHIELDED, PLENUM, CMP		SIZE B	DWG NO. <b>C109088</b>	REV D
SCALE: NONE	SHEET 1 OF 1			