

# SPECIFICATIONS

- DESCRIPTION:** CATEGORY 5e POWER SUM CABLE , CONSISTING OF 4 PAIRS, 24 AWG, UNSHIELDED WITH A PVC JACKET. c(UL)US CMR PER UL 444.
- CONDUCTOR:** 24 AWG SOLID BARE COPPER (.0201" NOM OD)  
INSULATION: POLYOLEFIN .034" - .036" NOM OD, .0069"-.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:** PVC LF, SEE COLOR TABLE FOR CABLE COLOR  
.179" - .200" NOM OD  
A RIPCORDER IS PULLED IN UNDER JACKET

- MARKING:** THE CABLE MUST INCLUDE THE FOLLOWING PRINT  
LEGEND: **OCC (occfiber.com)** CATEGORY 5e --- 4PR/24 c(UL)us  
CMR - (UL) VERIFIED CAT 5e ANSI/TIA 568-C.2 - Z/YY  
(XXXX) - Mx - R# - NNNN FEET  
WHERE Z = MONTH OF MFG.  
YY = YEAR OF MFG.  
XXXX = JOB NUMBER  
x = RESPOOL MACHINE #  
# = MASTER REEL #  
NNNN = SEQUENTIAL FOOTAGE MARKINGS

- ALTERNATE MARKING:** OCC (occfiber.com) -A-# \*\*\*\* FEET CAT 5e 4001142 CMR  
C(ETL)US 4 PR 24 AWG 75C --- VERIFIED BY UND LAB  
INC ONLY TO ANSI/TIA 568-C.2 CAT 5e --- ### ##  
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 = 02:25PM IN MILITARY TIME, J2 = JACKETING LINE #2)

- 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.

### 7. 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:	45 ns/100 METERS
NOMINAL VELOCITY OF PROPAGATION:	70%

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

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

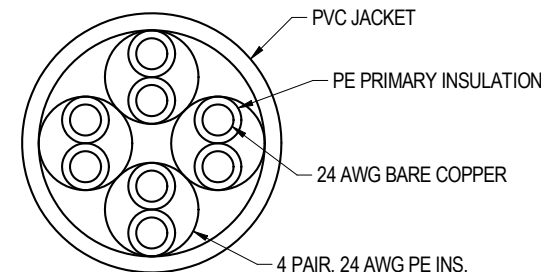
"OPTICAL CABLE CORPORATION (OCC) RESERVES THE RIGHT TO REVISE ANY COPPER CABLE SPECIFICATIONS."

REVISION HISTORY				
REV	SHT	DESCRIPTION	DATE	CHECKED
A	ALL	RELEASE NEW	3/10/08	JFM
B	-	CHG'D TO OCC IN PRINT LEGEND AND UPDATED SPECIFICATIONS	7/03/09	JFM
C	-	UPDATE OCC LEGEND AND CHANGED TO OCC P/N'S	3/26/10	DFS
D	-	UPDATED SPECIFICATIONS	7/2/10	SV
E	-	UPDATED PERFORMANCE TABLE AND NOTES	3/28/12	SV

# 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	9.2	45.8	42.8	36.5	33.5	37.8	34.8	25.0	542
25.0	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3	541
31.25	11.7	42.9	39.0	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	-	-	20.0	17.0	18.8	537
200.0	32.4	30.8	27.8	-	-	17.8	14.8	18.0	537
250.0	36.9	29.3	26.3	-	-	15.8	12.8	17.3	536
300.0	41.0	28.1	25.1	-	-	14.3	11.3	16.8	536
350.0	44.9	27.1	24.1	-	-	12.9	9.9	16.3	536


THIS CABLE MEETS INTERNATIONAL REQUIREMENTS FOR NON-FITTED INPUT IMPEDANCE. THIS CABLE SHALL BE COMPLIANT TO TIA-568-C.2 FOR CATEGORY 5e AND IS SWEPT TESTED THROUGH 350 MHz.



### CABLE COLOR TABLE

OCC-U5E4R-01	YELLOW
OCC-U5E4R-05	BLUE
OCC-U5E4R-07	WHITE
OCC PART NUMBER	JACKET COLOR

# UNCONTROLLED COPY

THIRD ANGLE PROJECTION		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS ±1/32" ANGLES ±1/2° 3 PLACE DECIMALS ±.005" 2 PLACE DECIMALS ±.01"		THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF OPTICAL CABLE CORPORATION AND MAY NOT BE USED AS THE BASIS FOR MANUFACTURE OR SALE WITHOUT SPECIFIC WRITTEN PERMISSION OF OPTICAL CABLE CORPORATION.		 33 Superior Way Swannanoa, NC 28778 Phone: 828-298-2260 Fax: 828-298-2487 www.occfiber.com	
MATERIAL SEE NOTES AND TABLES		DRAWN D.A.HOLBERT		DATE 3/10/08		DWG TITLE CABLE, CAT 5e, 24 AWG, 4 PR, UNSHIELDED, RISER, CMR	
FINISH SEE NOTES AND TABLES		CHECKED J.MALTAIS		DATE 11/14/08			
CRITICAL DIMENSION CODE (F) = FUNCTION (M) = MATING (A) = AUDIT		ENGINEER J.YANIK		DATE 3/10/08		SIZE B	
		APPROVED S.VADEN		DATE 3/28/12			
		PREVIOUS DWG		FILENAME C108651E.dwg		DWG NO. <b>C108651</b>	
		NEXT DWG		SCALE: NONE		REV E	
				SHEET 1 OF 1			