SPECIFICATIONS

1. **DESCRIPTION:** CATEGORY 5e POWER SUM CABLE, CONSISTING OF 4 PAIRS, 24 AWG, UNSHIELDED WITH A PVC JACKET. c(UL)US CMR PER UL

444. PACKAGING TYPE: BOX

2. **CONDUCTOR:** 24 AWG SOLID BARE COPPER (.0201" NOM OD)

INSULATION: PE .034" - .036" NOM OD, .0069"-.0075" AVG

WALL

3. **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

. Bratty and Bratty

4. OVERALL JACKET: PVC LF, SEE COLOR TABLE FOR CABLE COLOR

.195" NOM OD

.020" AVG WALL THICKNESS

5. **MARKING:** OCC (WWW.OCCFIBER.COM) P/N OCC-U5E4R --- ETL VERIFIED CATEGORY 5e 4 PR 24 AWG CMR C(UL)US OCCV E322888

MADE IN USA MYLLDDS XXXXX FT

WHERE: MYLLDDS = TRACEABILITY CODE

XXXXX FT = SEQUENTIAL FOOTAGE MARKINGS

6. 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: $100 \pm 15\Omega$

MAXIMUM CONDUCTOR RESISTANCE: 28.6 $\Omega/1000$ FEET

MAXIMUM RESISTANCE UNBALANCED: 5%

NOMINAL CAPACITANCE: 17 pF/FOOT

MAXIMUM DELAY SKEW: 35 ns/100 METERS

NOMINIAL VELOCITY OF PROPAGATION: 66%

INSTALLATION TEMPERATURE RANGE: 0°C +60°C OPERATING TEMPERATURE RANGE: -20°C +60°C

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

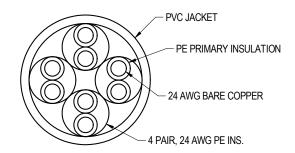
ELECTRICAL PERFORMANCE

| FREQUENCY (MHz.) | INSERTION LOSS MAX (dB/100 m) | М | LOSS IN B) PS | AC MI (di WP | | ELF MI (dE WP | N. | RETURN LOSS MIN. (dB) | DELAY MAX (ns) |
|---------------------|--|------|------------------------|-----------------------|------|------------------------|------|--------------------------------|----------------------|
| 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.

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

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LINI ESS OTHERWISE SPECIFIED THIS DRAWING AND THE DESIGN SHOWN ARE THE

CABLE COLOR TABLE

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

| | TOLERANCES: FRACTIONS ±1/32" ANGLES ±1/2° 3 PLACE DECIMALS ±.005" 2 PLACE DECIMALS ±.01" | OR SALE WITHOUT SPECIFIC W OF OPTICAL CABLE CORPORAT | CORPORATION AND GIS FOR MANUFACTURE /RITTEN PERMISSION | <u></u> FOCC | | | 33 Superior Way Swannanoa, NC 28778 Phone: 828-298-2260 Fax: 828-298-2487 | |
|--------------------------------|---|---|--|----------------------------|----------------|---------|--|-----|
| | | DRAWN D.A.HOLBERT | DATE 3/10/08 | OPTI | CAL CABLE CORP | ORATION | www.occfiber.cor | m |
| THIRD ANGLE | MATERIAL SEE NOTES AND TABLES | CHECKED J.MALTAIS | DATE 11/14/08 | DWG TIT | LE CABLE, | CAT 5e | 24 AWG, 4 | PR, |
| PROJECTION | | ENGINEER J.YANIK | DATE 3/10/08 | UNSHIELDED, RISER, C | | | | /IR |
| CRITICAL DIMENSION CODE | 1 11 11 01 1 | ^{APPROVED} S.VADEN | DATE 3/28/12 | SIZE | DWG NO. | 1006 | EA | REV |
| (F) = FUNCTION (M) = MATING | SEE NOTES AND TABLES | PREVIOUS DWG | | В | C. | 1086 | อา | F |
| A = AUDIT | | NEXT DWG | FILENAME C10865 | 1F.dft | SCALE: NONE | SHEE | [™] 1 OF 1 | |