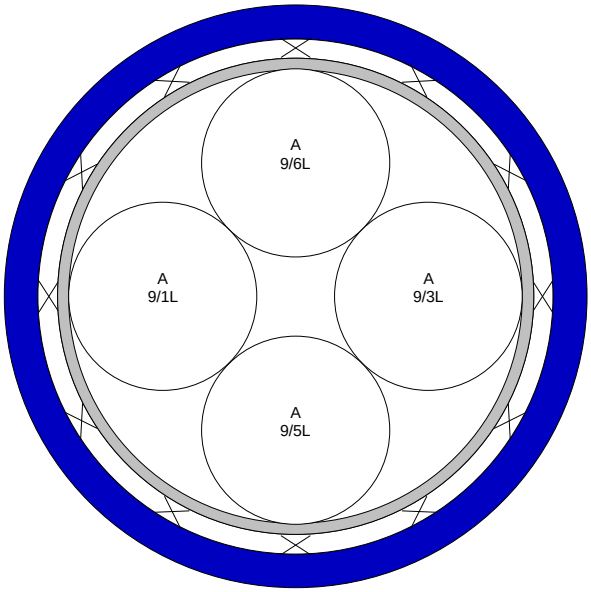
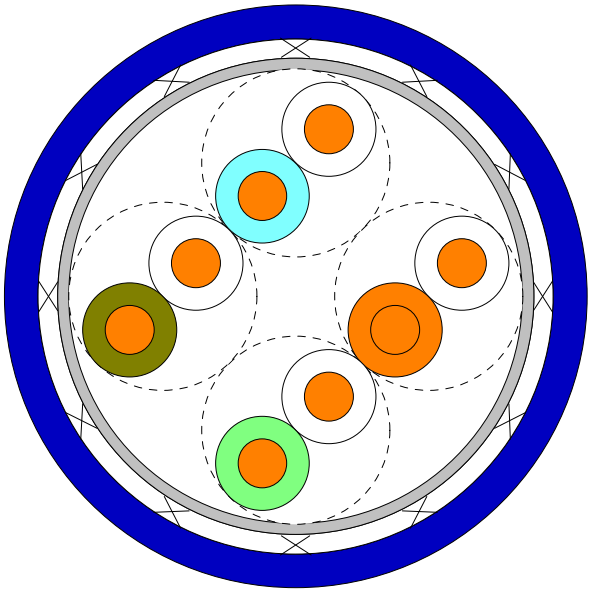
## Identification, colors & marks




## Cross section



## Components

| ID | Quantity | Part number | Description |
|---|---|---|---|
| A | 4 | 100-2446C42-WS | Twisted pair |

## Cable

| Outer | | Description | Thickness Inches | *mm* | OD Inches | *mm* |
|---|---|---|---|---|---|---|
| Core | | | | | 0.200 | *5.08* |
| | Wrap | Al.-PET .0025" - Al. facing out | 0.005 | *0.13* | 0.210 | *5.33* |
| | Shield | Round tinned copper 38 awg regular | 0.009 | *0.22* | 0.227 | *5.76* |
| | Jacket | FEP blue | 0.015 | *0.38* | 0.257 | *6.53* |
| Cable OD tolerance | | | | | + 0.033 | *+ 0.84* |

| **Weight** | 44.14 lb/kft | *65.81 Kg/Km* |
|---|---|---|





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This specification sheet takes precedence over documents referenced herein.
Referenced documents shall be of the issue in effect on date of invitation to bid.
Proposed specification control drawings may be altered prior to final issue.

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*Continued*

## Physical properties

| | |
|---|---|
| **Part Number** | The "+" in the part number will be replaced by a color code designator. This overrides the color currently shown on the drawing. Example: Blue jacketed cable, CEC-RWC-20412-6. |
| **Jacket tensile strength** | 2000 psi minimum |
| **Jacket elongation** | 200% minimum |
| **Shield Coverage** | 90% minimum |
| **Wrap** | 25% (minimum) overlap |
| **Testing** | This cable is to be tested in accordance with SPEC1200 as applicable |

## Environmental properties

| | |
|---|---|
| **Flammability** | Shall meet the requirements of FAR Part 25.869 (a)(4) Appendix F, Part I (a) (3) when tested in accordance with Appendix F Part I (b) (7). |

## Electrical properties

| | |
|---|---|
| **Additional Electricals** | See Page 3 |
| **Voltage withstand (dielectric)** | 1000 volts (rms) conductor to conductor and shield<br>500 volts (rms) shield to shield when applicable per NEMA WC 27500.<br>Coax components to their own SCD. |
| **Jacket Flaws** | Spark Test: 1 kV (rms)<br>Impulse Dielectric Test: 6.0 kV (peak) |

## Notes

| | |
|---|---|
| **Colors** | Color code designators shall be in accordance with MIL-STD-681. |
| **Dimensions** | Dimensions are in inches, and unless otherwise designated, are nominal. |
| **Export License Note** | These commodities, technology, or software, when exported from the United States, are required to be exported in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited. |
| **Identification, Colors & Marks** | The following is the key to the descriptions in the left hand view of the cable on Page 1.<br>Line 1: Identifies the component per the components' ID list.<br>Line 2: Color codes.<br>Line 3: Mark on component "-" mark on component jacket. |
| **Minimum length** | Cable will be supplied in 50 ft. minimum lengths unless otherwise specified |
| **Part Number Note** | Other codes and suffixes may be added to the Part Number as necessary, to capture any additional requirements imposed by the purchase order |
| **Specification Information** | This drawing is the property of Tyco Electronics, Inc. and may not be used for any purpose other than for that which it is supplied without the express written authority of Tyco Electronics, Inc. |
| **Nesting** | Some components are nested. Their size on the drawing may be altered to reflect the effect of nesting. |
| **Trademarks** | Raychem, TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks. |



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## TABLE I (Electrical Parameters)

| Tested per ASTM D4566<br><br>**Frequency** | Insertion Loss (dB)/100m (nom/maxl) | Return Loss (dB) (minimum) | NEXT (dB) (minimum) | ACRF (dB) (minimum) | PSNEXT (dB) (minimum) | PSACRFT (dB) (minimum) | Propagation Delay (ns/100m) (maximum) |
|---|---|---|---|---|---|---|---|
| 1 MHz | 2.4/2.64 | 20.0 | 65.3 | 65.3 | 62.3 | 60.8 | 570 |
| 4 MHz | 4.9/5.4 | 23.0 | 56.3 | 51.8 | 53.3 | 48.8 | 552 |
| 8 MHz | 6.9/7.6 | 24.5 | 51.8 | 45.7 | 48.8 | 42.7 | 547 |
| 10 MHz | 7.8/8.6 | 25.0 | 50.3 | 43.8 | 47.3 | 40.8 | 545 |
| 16 MHz | 9.9/10.9 | 25.0 | 47.3 | 39.7 | 44.3 | 36.7 | 543 |
| 20 MHz | 11.1/12.2 | 25.0 | 45.8 | 37.8 | 42.8 | 34.8 | 542 |
| 25 MHz | 12.5/13.8 | 24.2 | 44.3 | 35.8 | 41.3 | 32.8 | 541 |
| 31.25 MHz | 14.1/15.5 | 23.3 | 42.9 | 33.9 | 39.9 | 30.9 | 540 |
| 62.5 MHz | 20.4/22.4 | 20.7 | 38.4 | 27.9 | 35.4 | 24.9 | 539 |
| 100 MHz | 26.4/29.0 | 19.0 | 35.3 | 23.8 | 32.3 | 20.8 | 538 |

Note: Values in Table I, except for insertion loss, are for reference only. Actual values shall be determined utilizing the formulas in ANSI/TIA-568-C.2.

| | |
|---|---|
| Capacitance: | Mutual Capacitance of a pair: 5.6 nf/100 meter (maximum) at 1 kHz.<br>Pair to ground capacitance unbalance: 330 pF/100 meter (maximum) at 1 kHz. |
| Impedance: | 100 ± 15 ohms at 1 to 100 MHz. (for reference only) |
| Delay Skew: | 45 ns/100 meter (maximum) at 1 to 100 MHz. |
| Electrical Testing: | In accordance with ANSI/TIA-568-C.2. |



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