



**SPECIFICATION CONTROL DRAWING**

**C5E-24C424-814**

**CAT5e CABLE, AWG 24**

Date: 8/23/2016  
Issue: C  
Page: 1 of 2

THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION 1200.

**CONSTRUCTION DETAILS**

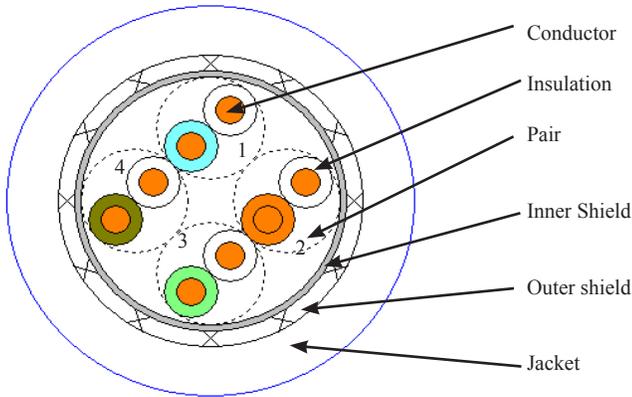


TABLE I - Insulation Color Coding

Pair #	Wire #1	Wire #2
1	9 (white)	6L (light blue)
2	9 (white)	3L (light orange)
3	9 (white)	5L (light green)
4	9 (white)	1L (light brown)

TABLE II

Pair Component		Dimensions inches (nom)
Conductor:	AWG 24 19/36, silver-coated high strength copper alloy	.0235
Insulation:	Foamed FEP	.046
Cable Assembly		
Core:	4 Pairs	.200
Inner Shield	Aluminum/PET Wrap, .0025 inch thick, 25% min. overlap. Facing out	.210
Outer Shield:	AWG 38, tin-coated copper	.227
Jacket:	FEP, .015 inch thickness	.257 + .033
Cable Weight:	44.14 lbs/kft	

Designate outer jacket color with a dash number appended to the part number. Example: Clear jacket; C5E-24C424-814-X

Color code designators shall be in accordance with MIL-STD-681. An "L" after the number indicates a light color.

**ELECTRICAL CHARACTERISTICS**

TABLE III

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

Note: Values in Table III for RL and NEXT are for reference only. Actual values shall be determined utilizing the formulas in ANSI/TIA-568-C.2.

Electrical Testing: In accordance with ANSI/TIA-568-C.2.  
 Capacitance: Mutual Capacitance: 5.6 nF/100 m (maximum) at 1 kHz.  
 Pair to ground capacitance unbalance: 330 pF/100 m (max) 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.  
 Velocity of Propagation: 76% (nominal)

Tyco Electronics Corporation  
Raychem Wire & Cable  
501 Oakside Avenue  
Redwood City, California 94063-3800  
1-800-522-6752

Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order. Users should evaluate the suitability of this product for their application. Tyco Electronics Corporation also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.  
 This specification sheet takes precedence over documents referenced herein. Referenced documents shall be of the issue in effect on date of invitation for bid.  
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Page 2 of 2

### ADDITIONAL REQUIREMENTS & RATINGS

Temperature Rating: -65°C to 150°C

Voltage Withstand: 1000 volts (rms), conductor to conductor and shield.  
500 volts (rms) shield to shield when applicable per NEMA WC 27500.

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)

Shield Coverage: 90% minimum

Jacket Tensile Strength: 2000 psi minimum

Jacket Elongation: 200% minimum

Jacket Flaws: Spark Test: 1 kV (rms)  
Impulse Dielectric Test: 6.0 kV (peak)

Testing: This cable is to be tested in accordance with SPEC1200 as applicable.

Cable will be supplied in 50 ft minimum lengths unless otherwise specified.