



SPECIFICATION CONTROL DRAWING

C5E-24B114-Y18

CAT5e CABLE, AWG 24

Date: 9/28/2015
Issue: D
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THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION WCD 2015.

CONSTRUCTION DETAILS

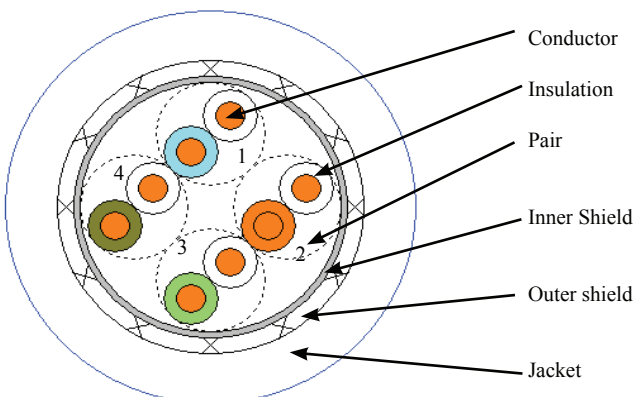


TABLE I - Insulation Color Coding

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 7/32, tin-coated copper	.024
Insulation:	Foamed Polyethylene	.047
Cable Assembly		
Core:	4 Pairs	.213
Inner Shield	Aluminum/PET Wrap, .0025 inch thick, 25% min. overlap.	.223
Outer Shield:	AWG 34, tin-coated copper Optimized to meet ZT requirement.	.249
Jacket:	Zerohal, .040 inch thickness	.328 ± .030
Cable Weight:	60.52 lbs/kft	

Designate outer jacket color with a dash number appended to the part number.
Example: Black jacket; C5E-24B114-Y18-0

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 (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	20.0	65.3	63.8	62.3	60.8	570
4	4.9	23.0	56.3	51.8	53.3	48.8	552
8	6.9	24.5	51.8	45.7	48.8	42.7	547
10	7.8	25.0	50.3	43.8	47.3	40.8	545
16	9.8	25.0	47.3	39.7	44.2	36.7	543
20	11.1	25.0	45.8	37.8	42.8	34.8	542
25	12.5	24.2	44.3	35.8	41.3	32.8	541
31.25	14.0	23.3	42.9	33.9	39.9	30.9	540
62.5	20.4	20.7	38.4	27.9	35.4	24.9	539
100	26.4	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:

Capacitance:

In accordance with ANSI/TIA-568-C.2.

Mutual Capacitance: 5.6 nF/100 m (nom) 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).

Conductor DC Resistance:

26.2 ohms/1000 ft (nominal) @ 20°C.

Delay Skew:

45 ns/100 meter (maximum) at 1 to 100 MHz.

Surface Transfer Impedance:

700 milliohms/m (max) at .1 to 100 MHz, 60dB (min) EMP response per MIL-DTL-24643 on a .33 meter test sample.

Velocity of Propagation:

74% (nominal)

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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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ADDITIONAL REQUIREMENTS & RATINGS

Temperature Rating: -40°C to 105°C

Shield: Shield AWG is nominal to allow for changes to meet the surface transfer impedance.

Specification: Spec 1200 (Electricals)

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

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