SPECIFICATION CONTROL DRAWING

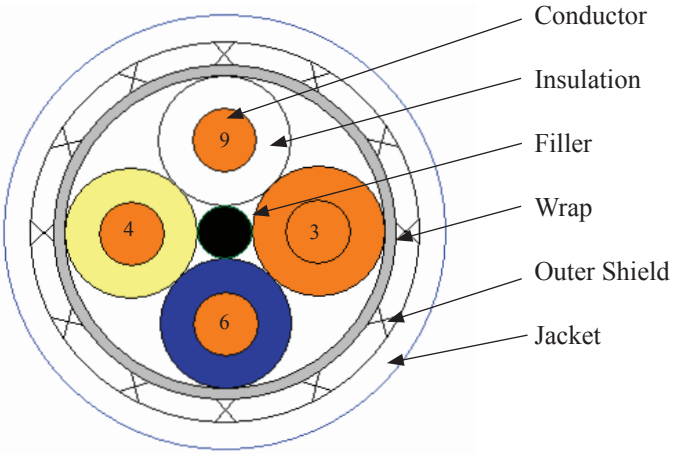
THX-24C112-811

QUADRAX CABLE, 100 BASE-T, ETHERNET, AWG 24

Date: 4/1/2015
Issue: B

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

CONSTRUCTION DETAILS



Single Component		**Dimensions inches (nom)**
Conductor:	AWG 24 19/36, tin-coated copper	.0235
Insulation:	Foamed Polyethylene	.048
Cable Assembly		
Filler:	Polyethylene	.020
Layer 1:	4 single components	.116
Wrap:	AL-PET .002"- AL facing out	.124
Outer Shield:	AWG 38, tin-coated copper, 85% min coverage	.141
Jacket:	Thermorad K .010 inch thickness	.161 +.008
Cable Weight	18.55 lb/kft (nominal)	

Designate outer jacket color with a dash number appended to the part number.
Example: White; THX-24C112-811-9.

TABLE I

Single Components	Pair	Wire Insulation color
1	1	9 (white)
2	2	3 (orange)
3	1	6 (blue)
4	2	4 (yellow)

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

ELECTRICAL CHARACTERISTICS

TABLE II

Frequency MHz	Insertion Loss dB/100m (max)	Return Loss dB/100m (min)	NEXT dB/100m (min)	Propagation Delay ns/100m (max)
1	3.2	20.0	65.3	570
4	6.0	23.0	56.3	552
8	8.3	24.5	51.8	547
10	9.5	25.0	50.3	545
16	11.9	25.0	47.3	543
20	13.5	25.0	45.8	542
25	15.2	24.2	44.3	541
31.25	17.1	23.3	42.9	540
62.5	24.8	20.7	38.5	539
100	32.0	19.0	35.3	538

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

Impedance: 100 (nominal) at 1 to 100 MHz.
Mutual Capacitance: 13.0 pF/ft. (nominal) at 1 kHz.
Conductor DC Resistance: 25.7 ohms/1000ft (nominal) @ 20°C
Resistance Unbalance: 5% (maximum)
Velocity of Propagation: 77% (nominal) at 31.25 MHz
Propogation Delay Skew: 45 ns/100m (max)
Resistance Unbalance: 5% (max)
Electrical Testing: In accordance with ANSI/TIA-568-C.2.

ADDITIONAL REQUIREMENTS & RATINGS

Temperature Rating: -65°C to 150°C
Voltage Withstand: 1000 volts (rms), conductor to conductor and shield
Crosslink Verification: 200 ± 5°C for 6 hours per NEMA WC 27500 6" mandrel, 0.5 lbs.
Jacket Flaws: Spark Test 2.5 kV (rms)
Impulse Dielectric Test: 6.0 kV (peak)
Cold Bend: 4 hrs @ -55 deg C, 3.75" Mandrel, 1.0 lbs weight
Heat Shock: 4 hrs @ 225 deg C (No Melting or Flowing)
Jacket Elongation: 200% minimum
Jacket Tensile Strength: 2000 psi minimum
Jacket Wall: Minimum jacket wall is 80% of the nominal jacket wall.

Jacket Mark: "RAYCHEM THX-24C112-811 06090 A-B"

The orientation of the mark shall be as follows: The "A" end components shall be White, Orange, Blue, and Yellow in a clockwise direction. The "B" end components shall be White, Yellow, Blue, Orange.

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

Tyco Electronics Corporation
Raychem Wire & Cable
501 Oakside Avenue
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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.
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