SPECIFICATION CONTROL DRAWING

THX-24C112-818

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

Date: 6/11/2019
Issue: D

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

CONSTRUCTION DETAILS

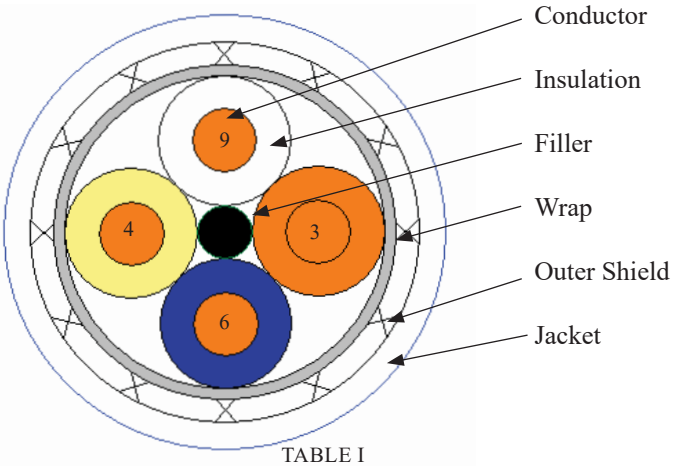

TABLE I

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

TABLE II

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:	Zerohal .033 inch thickness	.207 +.010
Cable Weight	27.32 lb/kft (nominal)	

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

Designate outer jacket color with a dash number appended to the part number. Example: Black; THX-24C112-818-0.

ELECTRICAL CHARACTERISTICS

TABLE III

Fre-quency MHz	Insertion Loss dB/100m (max)	Return Loss dB/100m (min)	NEXT dB/100m (min)	ACRF (ELFEXT) dB/100m (min)	PS NEXT dB/100m (min)	PSACRF (PS ELFEXT) dB/100m (min)	Propagation Delay ns/100m (max)
1	3.2	20.0	65.3	63.8	62.3	60.8	570
4	6.0	23.0	56.3	51.8	53.3	48.8	552
8	8.3	24.5	51.8	45.7	48.8	42.7	547
10	9.5	25.0	50.3	43.8	47.3	40.8	545
16	11.9	25.0	47.3	39.7	44.2	36.7	543
20	13.5	25.0	45.8	37.7	42.8	34.7	542
25	15.2	24..2	44.3	35.8	41.3	32.8	541
31.25	17.1	23.3	42.9	33.9	39.9	30.9	540
62.5	24.8	20.7	38.5	27.9	35.4	24.9	539
100	32.0	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.

TE Connectivity Corporation
Raychem Wire & Cable
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Redwood City, California 94063-3800
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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. TE Connectivity 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.

ADDITIONAL ELECTRICAL REQUIREMENTS

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:	45ns/100m (maximum)

Electrical Testing: In accordance with ANSI/TIA-568-C.2

ADDITIONAL REQUIREMENTS & RATINGS

(Test procedures per Spec345 unless otherwise specified)

Temperature Rating:	-30°C to 105°C
Accelerated Aging:	175°C for 4 hours, 60% retention
Shield Coverage:	85% (minimum)
Jacket Concentricity:	70% (minimum)
Cold Bend:	4 hours @ -30°C, 2.0" Mandrel, 1.0 lbs weight
Shrikage:	6 hours @ 150°C, .25" (max)
Drip Test:	150°C, 6 hours
Voltage Withstand:	1000 volts (rms) Conductor to Conductor and Shield
Tensile:	1300 psi (minimum)
Elongation:	160% (minimum)
Jacket Flaws:	Spark Test 3.0 kV (rms)
Jacket Wall:	Minimum jacket wall is 80% of the nominal jacket wall
Jacket Mark Durability:	Per spec 1200
Jacket Mark:	"RAYCHEM THX-24C112-818 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

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