



SPECIFICATION CONTROL DRAWING

C6A-24C444-814

CAT6a CABLE, AWG 24

Date: 1/16/2024
Issue: H
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THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION 1200.

CONSTRUCTION DETAILS

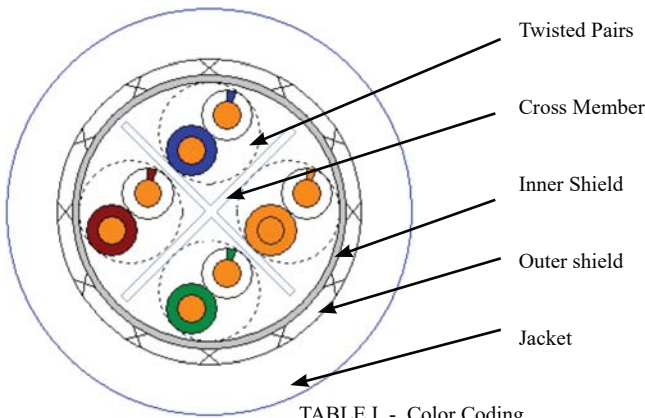


TABLE I - Color Coding

Pair #	Conductor #1	Conductor #2
A	9 (white/blue stripe)	6 (blue)
B	9 (white/orange stripe)	3 (orange)
A	9 (white/green stripe)	5 (green)
B	9 (white/brown stripe)	1 (brown)

TABLE II

Pair Component		Dimensions inches (nom)
Conductor	AWG 24 19/36, silver high strength copper alloy	.0235
Insulation Pair A	FEP	.049
Insulation Pair B	FEP	.048
Cable Assembly		
Core:	4 Pairs	.234
Inner Shield	Aluminum/PET Wrap, .0025 inch thick	.244
Outer Shield:	AWG 38, tin-coated copper Coverage: 90% (min)	.261
Jacket:	FEP, .015 inch thickness	.291 + .015 - .023
Cable Weight:	55.50 lbs/kft	

Designate outer jacket color with a dash number appended to the part number.
Example: Clear jacket; C6A-24C444-814-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 (max)	Return Loss dB/100m (min)	NEXT dB/100m (min)	ACRF dB/100m (min)	PS NEXT dB/100m (min)	PSACRF dB/100m (min)	TCL dB/100m (min)	ELTCL dB/100m (min)	Propagation Delay ns/100m (max)
1	2.4	20.0	74.3	67.8	72.3	64.8	40.0	35.0	570
4	4.6	23.0	65.3	55.8	63.3	52.8	40.0	23.0	552
8	6.4	24.5	60.8	49.7	58.8	46.7	40.0	16.9	547
10	7.1	25.0	59.3	47.8	57.3	44.8	40.0	15.0	545
16	9.0	25.0	56.2	43.7	54.2	40.7	38.0	10.9	543
20	10.0	25.0	54.8	41.8	52.8	33.8	37.0	9	542
25	11.3	24.2	53.3	39.8	51.3	36.8	36.0	7	541
31.25	12.6	23.3	51.9	37.9	49.9	34.9	35.1	5.5	540
62.5	18.0	20.7	47.4	31.9	45.4	28.9	32.0	--	539
100	22.9	19.0	44.3	27.8	42.3	24.8	30.0	--	538
200	33.1	16.4	39.8	21.8	37.8	18.8	27.0	--	537
250	37.3	15.6	38.3	19.8	36.3	16.8	26.0	--	536
300	41.2	14.9	37.1	18.3	35.1	15.3	25.2	--	536
400	48.1	13.8	35.3	15.8	33.3	12.8	24.0	--	536
500	54.4	13.0	33.8	13.8	31.8	10.8	23.0	--	536

Note: Values in Table III for RL and NEXT are for reference only. Actual values shall be determined utilizing the formulas in ANSI/TIA-568.2 (issue in effect).
(Electrical Characteristics continued on Page 2)

TE Connectivity 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. 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.

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ELECTRICAL CHARACTERISTICS (CONTINUED)

Electrical Testing:	In accordance with ANSI/TIA-568.2 (issue in effect).
Capacitance:	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 ohms (nominal) at 1 to 500 MHz. (for reference only).
Propagation Delay Skew:	45 ns/100m (maximum) at 1 to 500 MHz
Velocity of Propagation:	71 % (nominal)
Conductor DC Resistance:	27.8 ohms/1000ft (nominal) @ 20°C

ADDITIONAL REQUIREMENTS & RATINGS

Temperature Rating:	-55°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.
Tensile Strength:	2000 psi (minimum)
Elongation:	200% (minimum)
Jacket Flaws:	Spark test: 2.5 kV (rms) Impulse dielectric test: 6.0kV (peak)
DC Resistance Unbalance:	4 % maximum at 20C
Flammability:	Finished cable shall meet the requirements of FAR Part 25, Appendix F, Part I when tested in accordance with the 60° test specification herein.

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