

SPECIFICATION CONTROL DRAWING

3EQ-22C222-32M

Date: 1/18/2018 Revision: B

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IEEE 1394B QUAD CABLE, AWG 22

Jacket

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

CONSTRUCTION DETAILS Conductor Insulation Filler Wrap Inner Shield Outer Shield

Single Component **Dimensions** Conductor: AWG 22, 19/34, silver-coated .0315 copper Foamed FEP .061 (.070 max) Insulation: Cable Assembly Solid FEP filler .025 Core: .144 Layer 1: 4 singles Wrap: ePTFE .003"Tape 80% overlap (nom) .168

92% coverage (minimum)(each)

Jacket: FEP .008 inch thickness .222 (max)

AWG 40, silver-coated copper

AWG 38, silver-coated copper

Weight: 43.1 lbs/kft (max)

Inner Shield:

Outer Shield:

(Dimensions are in inches and unless otherwise specified are nominal.)

TABLE I

Single Wire	Pair	Wire Insulation color
1	1	3L (light orange)
2	2	2L (light red)
3	1	6L (light blue)
4	2	5L (light green)

Designate outer jacket color with a dash number appended to the part number. Example: White jacket; 3EQ-22C222-32M-9.

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

ELECTRICAL CHARACTERISTICS TABLE II

Frequency MHz	Attenuation dB/100 ft (max)
100	5.5
250	8.8
500	12.8
1000	18.2

 $\label{eq:mpedance} \begin{array}{ll} \mbox{Impedance (Differential):} & 110 + 6/-4 \mbox{ ohms TDR rise time } < 80 \mbox{ ps} \\ \mbox{Impedance (Common Mode):} & 33 \pm 6 \mbox{ ohms TDR rise time } < 80 \mbox{ ps} \\ \mbox{Crosstalk:} & 26 \mbox{ dB (minimum) } 1 - 500 \mbox{ MHz} \\ \mbox{Capacitance:} & 13 \mbox{ pF/ft. (maximum) at } 1 \mbox{ kHz.} \\ \mbox{Conductor DC Resistance:} & 14.4 \mbox{ ohms/} 1000 \mbox{ ft (nominal)} \\ \mbox{Time Delay:} & 1.31 \mbox{ ns/ft (maximum)} \\ \end{array}$

Time Delay Skew: 200 ps/50 ft (maximum), within pairs

Time Delay Skew Between Pairs: 400 ps/4.5 m (maximum)

Velocity of Propagation: 82% (nominal)

Eye Pattern: Eye pattern to have zero violations on eye

mask of 450 mVp-p X 1000 ps for 81 ft

sample.

ADDITIONAL REQUIREMENTS & RATINGS

Temperature Rating: -65°C to 200°C

Voltage Withstand: 1500 V (rms), conductor to conductor;

1000 V (rms) conductor to shield.

Cold Bend: -55° C; 6 inch Mandrel; 4 hours

Blocking: 200° C; 6 inch Mandrel; 6 hours

Flammability: Spec 1200 Method B

Thermal Shock: 230° C; 2.25 inch Mandrel; 4 hours per

NEMA WC 27500

Jacket Flaws: Spark Test 1.5 kV (rms)

Impulse Dielectric Test: 6.0 kV (peak)

Jacket Elongation: 200% minimum

Jacket Tensile Strength: 2000 psi minimum

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

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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