

**SPECIFICATION CONTROL DRAWING**

**2020B4424**

**CHEMINAX**

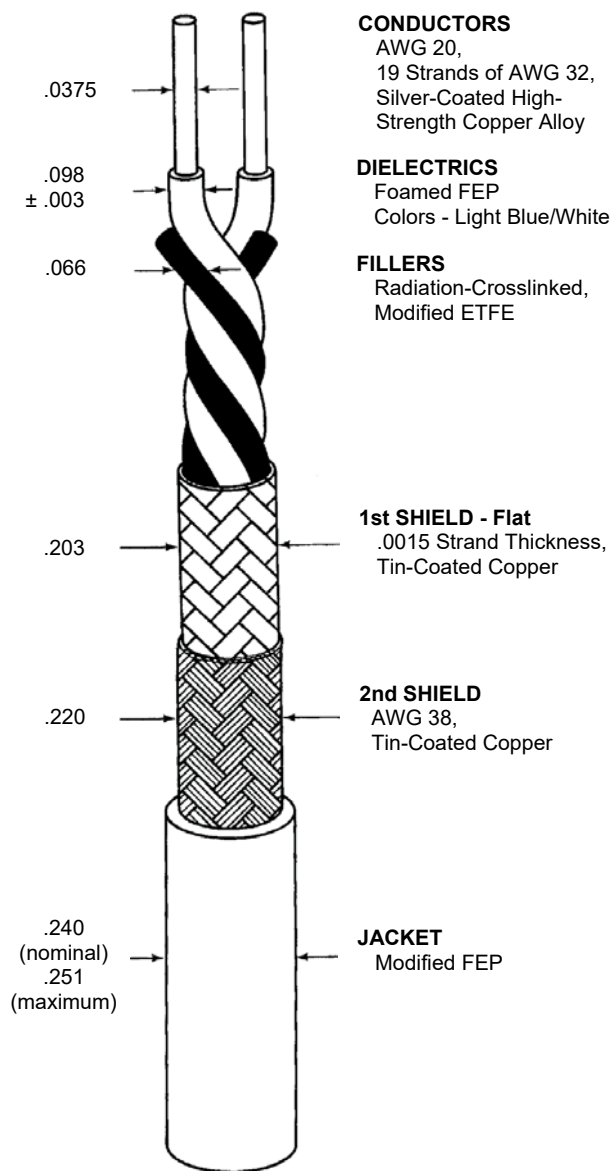
120 OHM, AWG 20, 19 STRANDS OF AWG 32,  
TWINAXIAL CABLE

Date: 4-5-19  
Revision: B

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

**CONSTRUCTION DETAILS**

**ELECTRICAL CHARACTERISTICS**



**CONDUCTORS**  
AWG 20,  
19 Strands of AWG 32,  
Silver-Coated High-  
Strength Copper Alloy

**DIELECTRICS**  
Foamed FEP  
Colors - Light Blue/White

**FILLERS**  
Radiation-Crosslinked,  
Modified ETFE

**1st SHIELD - Flat**  
.0015 Strand Thickness,  
Tin-Coated Copper

**2nd SHIELD**  
AWG 38,  
Tin-Coated Copper

**JACKET**  
Modified FEP

CHARACTERISTIC IMPEDANCE	120 ± 12 ohms, Method D at 1 MHz with shield grounded
MUTUAL CAPACITANCE	12.7 pF/ft. (nominal)
VELOCITY OF PROPAGATION	77% (nominal)
ATTENUATION	0.7 dB/100 ft. (maximum) at 1 MHz 1.4 dB/100 ft. (maximum) at 6 MHz 1.7 dB/100 ft. (maximum) at 10 MHz 4.9 dB/100 ft. (maximum) at 100 MHz

**ADDITIONAL REQUIREMENTS**

**ELECTRICAL**

CONDUCTOR RESISTANCE (prior to cabling)	10.6 ohms/1000 ft. (nominal)
INSULATION RESISTANCE	10,000 megohms (minimum) for 1000 ft.
JACKET FLAWS SPARK TEST	1.0 kV (rms)
IMPULSE TEST	6.0 kV (peak)
VOLTAGE WITHSTAND (DIELECTRIC)	1000 volts (rms) (minimum)

**ENVIRONMENTAL**

FLAMMABILITY	Method B
HEAT SHOCK	225°C
LOW TEMPERATURE-COLD BEND	-55°C/7.00 inch mandrel
UV LASER MARK CONTRAST	For 2020B4424-9LM only:
FULL MASK LASER	67% (minimum)
DOT MATRIX LASER	60% (minimum)
VOLTAGE WITHSTAND (Post Environmental)	1000 volts (rms), 1 minute

**PHYSICAL**

INSULATION (DIELECTRIC) (prior to cabling)	
ELONGATION	50% (minimum)
TENSILE STRENGTH	600 lbf/in <sup>2</sup> (minimum)
JACKET ELONGATION	200% (minimum)
TENSILE STRENGTH	2000 lbf/in <sup>2</sup> (minimum)
JACKET THICKNESS	.010 inch (nominal)

SHIELD COVERAGE	
1st SHIELD	92% (minimum)
2nd SHIELD	85% (minimum)

WEIGHT	42.4 lbs/1000 ft. (maximum)
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**ENGINEERING REFERENCE**

TEMPERATURE RATING	150°C (maximum)
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Designate outer jacket color with a dash number in accordance with MIL-STD-681. Unless otherwise specified, outer jacket color will be translucent white designated by a "-9X" appended to the part number, e.g. 2020B4424-9X.

A white laser markable outer jacket will be designated by a "-9LM" appended to the part number, e.g. 2020B4424-9LM.

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. Specifications are subject to change without notice. TE Connectivity also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

