

**CHEMINAX**

100 OHM, AWG 16, RADIO FREQUENCY, 19 STRANDS OF  
AWG 29, TWIN CONDUCTOR CABLE

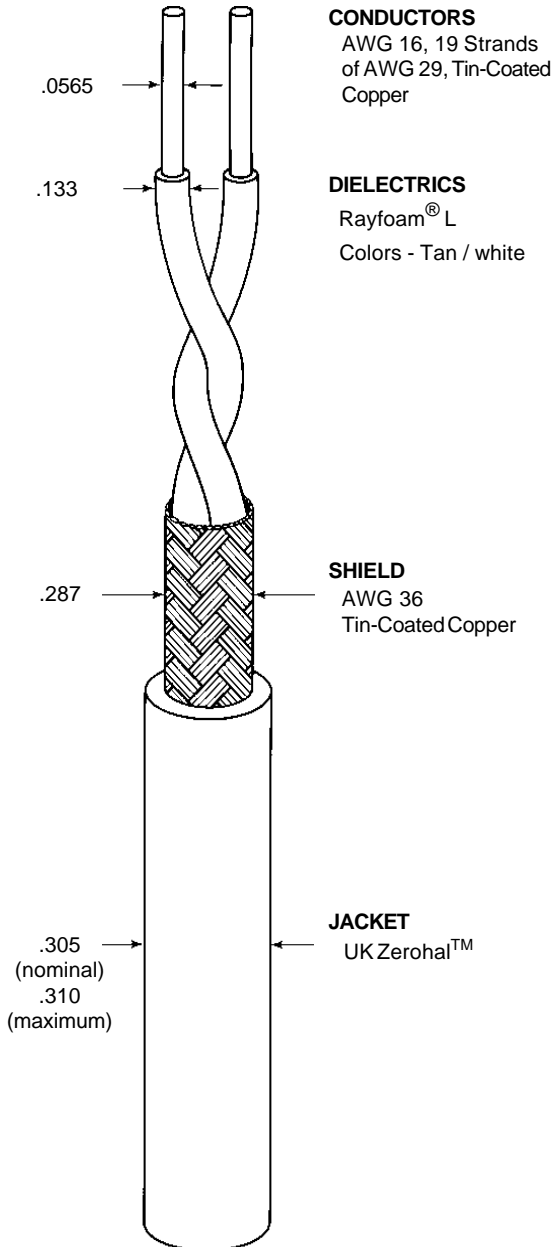
Date: 10-7-05  
Revision: D

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

**CONSTRUCTION DETAILS**

**ELECTRICAL CHARACTERISTICS**

DIMENSIONS ARE NOMINAL VALUES IN INCHES UNLESS OTHERWISE DESIGNATED.



|                          |   |
|--------------------------|---|
| CHARACTERISTIC IMPEDANCE | 100 ± 8 ohms, Method C at 1 MHz   |
| CAPACITANCE - MUTUAL     | 17.0 pF/ft. (maximum) at 1 kHz  |
| VELOCITY OF PROPAGATION  | 77% (nominal)   |
| PROPAGATION DELAY        | 1.32 ns/ft (nominal)<br>1.70 ns/ft (maximum)  |
| ATTENUATION              | 0.61 dB/100 ft. (nominal) at 1 MHz<br>2.29 dB/100 ft. (nominal) at 10 MHz<br>8.07 dB/100 ft. (nominal) at 100 MHz                 |
| STRUCTURAL RETURN LOSS   | 20 dB (nominal) - 1-20 MHz<br>18 dB (nominal) - 40 MHz<br>17 dB (nominal) - 80 MHz<br>16 dB (nominal) - 100 MHz<br>for 100 meters |

**ADDITIONAL REQUIREMENTS**

|   |                                      |
|---|--------------------------------------|
| <b>ELECTRICAL</b>                         |                                      |
| CONDUCTOR RESISTANCE                      | 4.69 ohms/1000 ft. (nominal)         |
| INSULATION RESISTANCE                     | 10,000 megohms (minimum) for 1000ft. |
| JACKET FLAWS                              |                                      |
| SPARK TEST                                | 1.0 kV (rms)                         |
| IMPULSE TEST                              | 6.0 kV (peak)                        |
| RESISTANCE UNBALANCE                      | 5% (maximum)                         |
| VOLTAGE WITHSTAND (DIELECTRIC)            | 1000 volts (rms) (minimum)           |
| <b>ENVIRONMENTAL</b>                      |                                      |
| FLAMMABILITY                              | Method B                             |
| HEAT SHOCK                                | 225°C                                |
| JACKET SMOKE INDEX                        | 25 (maximum)                         |
| (Qualification Test per MIL-DTL-24640/4D) |                                      |
| JACKET TOXICITY INDEX                     | 5 (maximum)                          |
| (Qualification Test per MIL-DTL-24640/4D) |                                      |
| LOW TEMPERATURE- COLD BEND                | -30°C/8.00 inch mandrel              |
| VOLTAGE WITHSTAND (POST ENVIRONMENTAL)    | 1000 volts (rms), 1 minute           |
| <b>PHYSICAL</b>                           |                                      |
| INSULATION (DIELECTRIC)                   |                                      |
| (Prior to Cabling)                        |                                      |
| ELONGATION                                | 50% (minimum)                        |
| TENSILE STRENGTH                          | 1000 lbf/in <sup>2</sup> (minimum)   |
| JACKET                                    |                                      |
| ELONGATION                                | 150% (minimum)                       |
| TENSILE STRENGTH                          | 1200 lbf/in <sup>2</sup> (minimum)   |
| JACKET THICKNESS                          | .009 (nominal)                       |
| SHIELD COVERAGE                           | 90% (minimum)                        |

Outer jacket will be black (designated by a "-0" appended to the part number, e.g., 0016D0811-0) unless otherwise specified.

Designate outer jacket color with a dash number in accordance with MIL-STD-681. Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order.

PRODUCT IDENTIFICATION: The jacket shall be marked in a contrasting color at 12 inch (nominal) intervals between marks as follows: " RAYCHEM 0016D0811-0 "

WEIGHT 43.2 lbs/1000 ft. (nominal)

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.

Tyco Electronics 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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THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.