

# CONSTRUCTION: QUAD CABLE

- A. CONDUCTOR: AWG 24(19 / 36) SPAL
- B. PRIMARY INSULATION - ePTFE (AGAINST CONDUCTOR)
- C. SECONDARY INSULATION - PTFE - O.D. 0.055 MAX  
COLORS: ARINC STANDARD RED x BLU, YEL x GRN PAIRS
- D. FILLER: FEP (0.018) DIAMETER
- E. BINDER: ePTFE
- F. SHIELD #1: AWG 40(1) SPC BRAID, 85% MIN COVERAGE
- G. SHIELD #2: AWG 40(1) SPC BRAID, 85% MIN COVERAGE
- H. JACKET: 0.003 MINIMUM WALL WHITE LASER MARKABLE ENGINEERED FLUOROPOLYMER

## ELECTRICAL REQUIREMENTS (MEASURED ON 50 FT SAMPLE):

1. IMPEDANCE:  $100 \pm 10 \Omega$  MEASURED DIFFERENTIALLY
2. VELOCITY OF PROPAGATION: 80% OF AIR MINIMUM
3. DIELECTRIC WITHSTANDING VOLTAGE:  
3.0 kV<sub>dc</sub> (CONDUCTOR / CONDUCTOR)  
2.0 kV<sub>dc</sub> (CONDUCTOR / SHIELD)
4. SKEW: 200.0 pSEC / 50 FT MAX WITHIN PAIR
5. RETURN LOSS LIMITS (MEASURED ON 100 METER SAMPLE):  
24.5 dB @ 8 MHz  
25.0 dB @ 10 MHz  
25.0 dB @ 16 MHz  
25.0 dB @ 20 MHz  
24.2 dB @ 25 MHz  
23.2 dB @ 31.25 MHz  
20.7 dB @ 62.5 MHz  
19.0 dB @ 100 MHz
6. NEXT (MAXIMUM) (MEASURED ON 100 METER SAMPLE):  
51.8 dB @ 8 MHz  
50.3 dB @ 10 MHz  
47.2 dB @ 16 MHz  
45.8 dB @ 20 MHz  
44.3 dB @ 25 MHz  
42.9 dB @ 31.25 MHz  
38.5 dB @ 62.5 MHz  
35.3 dB @ 100 MHz
7. INSERTION LOSS VALUES (MAXIMUM) (MEASURED ON 100 METER SAMPLE):  
7.9 dB @ 8 MHz  
8.9 dB @ 10 MHz  
11.2 dB @ 16 MHz  
12.7 dB @ 20 MHz  
14.2 dB @ 25 MHz  
16.0 dB @ 31.25 MHz  
23.3 dB @ 62.5 MHz  
30.1 dB @ 100 MHz
8. INSERTION LOSS MEASURED PER ASTM D 4566 (MEASURED ON 50 FT SAMPLE) SHALL MEET THE INDICATED VALUES AT THE FOLLOWING FREQUENCIES (MAXIMUM):  
12.65 dB / 50 FT @ 800 MHz  
18.05 dB / 50 FT @ 1000 MHz

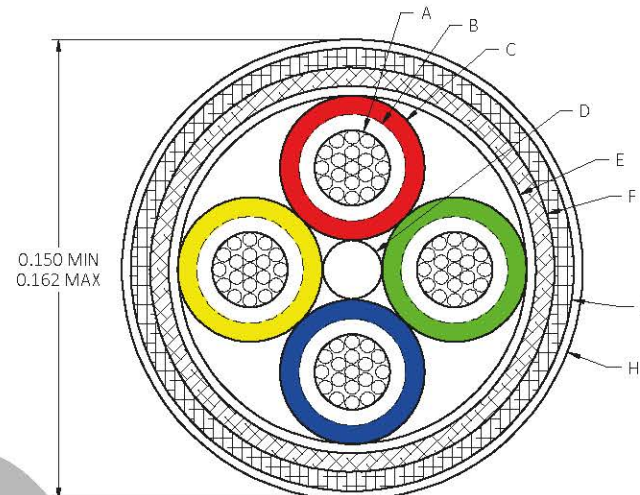
## OTHER REQUIREMENTS:

1. WEIGHT: 30.0 LBS / 1000 FT MAX
2. TEMPERATURE: -55° C TO +200° C
3. FUNCTIONAL CHARACTERISTICS: MEETS OR EXCEEDS NEMA-WC27500 SECTION 3.9
4. TESTS LENGTHS ALL BE INCLUDED IN ALL SHIPMENTS

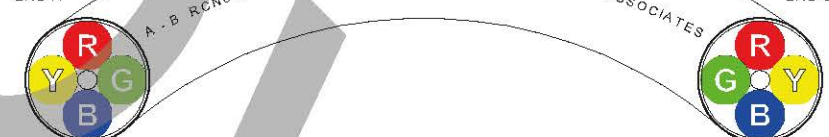
## NOTES:

1. JACKET PRINTING: RCN8752, CAGE CODE [CAGE CODE], AND "W.L. GORE & ASSOCIATES"

| REVISIONS |                           |             |          |
|-----------|---------------------------|-------------|----------|
| Rev       | Description               | Date        | Chg'd By |
| C         | EM2 ECO - 7081 T.Sharp    | 20 DEC 2015 | DED      |
| D         | EM2 ECO - 7268 G.Lawton   | 26 SEP 2016 | DED      |
| E         | EM2 ECO - 7304 G.Lawton   | 04 NOV 2016 | DED      |
| F         | EM2 ECO - 7351 G.Lawton   | 24 JAN 2017 | TKG      |
| G         | EM2 ECO - 8416 L.Daitzman | 30 AUG 2018 | TKG      |
| H         | EM2 ECO - 8872 T.Mayer    | 22 MAR 2019 | TKG      |
| J         | EM2 ECO - 8994 R.Porter   | 12 APR 2019 | TKG      |



END A



|                                                                                       |  |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |  |  |
|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--|--|
| PARENTHESES DENOTE REFERENCE DIMENSIONS                                               |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | W. L. GORE & ASSOCIATES, INC. (Gore) |  |  |
| DIMENSIONS ARE IN INCHES                                                              |  | UNLESS OTHERWISE SPECIFIED                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Performance Solutions Division       |  |  |
| DON'T SCALE DRAWING                                                                   |  | .X ± N/A                                                                              | <p>101 Lewisville Road, Elkton, MD 21921 410 / 392-3300</p> <p>© 2007, 2009 W. L. Gore &amp; Associates, Inc.</p> <p>By acceptance of this document you agree that all rights to drawings, specifications, processes and other data contained therein, as well as the proprietary and novel features of the subject matter, are reserved by Gore and are disclosed in confidence. They are not to be reproduced, used, sold or disclosed to others, nor are they to be copied or reproduced without express permission, and are to be returned upon request thereof.</p> |                                      |  |  |
| DEBURR SHARP EDGES                                                                    |  | .XX ± N/A                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |  |  |
|                                                                                       |  | .XXX ± N/A                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |  |  |
|                                                                                       |  | .XXXX ± N/A                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |  |  |
|                                                                                       |  | .XXXXX ± N/A                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |  |  |
|  |  | FRACTIONS ± N/A                                                                       | 100 $\Omega$ MARKABLE QUAD CABLE, AWG 2419                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      |  |  |
| Third Angle Projection                                                                |  | ANGLES ± N/A                                                                          | Dwg Size Sheet Scale # associated Documents Drawn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |  |  |
| INTERPRET DRAWING IN A COMBINATION OF INCHES WITH MILLIMETERS (REL)                   |  | SURFACE TEXTURE N/A /                                                                 | B 1 of 1 25:1 N/A ECL 07 MAY 2007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |  |  |
|                                                                                       |  | DRAWING FILED N/A MAX                                                                 | Rev Date 12 APR 2019 Drawing Number RCN8752 Rev Level J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |  |  |

Valid only at time of printing