

|                  |  |   |
|------------------|--|---|
| 1) CONSTRUCTION: |  | NOM. DIA.                               |
| CONDUCTOR:       | 26 AWG 7/34 STRANDED TINNED COPPER   | .019"                                   |
| INSULATION:      | HIGH DENSITY POLYETHYLENE, .009" NOM. WALL THICKNESS   | .037"                                   |
| PAIRS:           | COLOR CODED SINGLES TWISTED INTO PAIRS   | .074"                                   |
| CABLE:           | (2) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYOLEFIN TAPE (100% COVERAGE) TO FORM A CABLE CORE.   | .120"                                   |
| SHIELDS:         | AN OVERALL SHIELD OF 38 AWG TINNED COPPER BRAID (75% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF ALUMINIZED POLYESTER FOIL (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID. | .142"                                   |
| JACKET:          | ZHFR POLYURETHANE, ( <b>COLOR, PER CHART 1</b> ), .046" NOM. WALL THICKNESS (PRESSURE)   | OVERALL CABLE DIAMETER<br>.233" ± .010" |

|  |   |
|--|---|
| 2) PHYSICAL PROPERTIES:                                |   |
| TEMPERATURE RATING, MAX.                               | 75°C  |
| TEMPERATURE RATING, MIN.                               | -40°C (MANUFACTURER'S RECOMMENDED)  |
| TEMPERATURE RATING, MIN.                               | -20°C (PER UL 444 COLD BEND)  |
| WT./M', NOM., NET.                                     | 29.4 LBS.   |
| FLEX LIFE  | 1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS)<br>10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS) |
| JACKET SMOKE GENERATION PER ASTM E662, NOM.            | Ds = 251 (FLAMING, @ 4 MINUTES)<br>Ds = 16 (NON-FLAMING, @ 4 MINUTES)   |
| JACKET OIL RESISTANCE<br>(IRM 902 OIL, 7 DAYS @ 100°C) |   |
| TENSILE STRENGTH RETENTION, NOM.                       | 100%  |
| ELONGATION RETENTION, NOM.                             | 80%   |

CHART 1:

| QUABBIN P/N | JACKET COLOR |
|-------------|--------------|
| 5080        | BLACK        |
| 5081        | BLUE         |
| 5082        | TEAL         |

3) ELECTRICAL CHARACTERISTICS:  
SEE PAGE 2

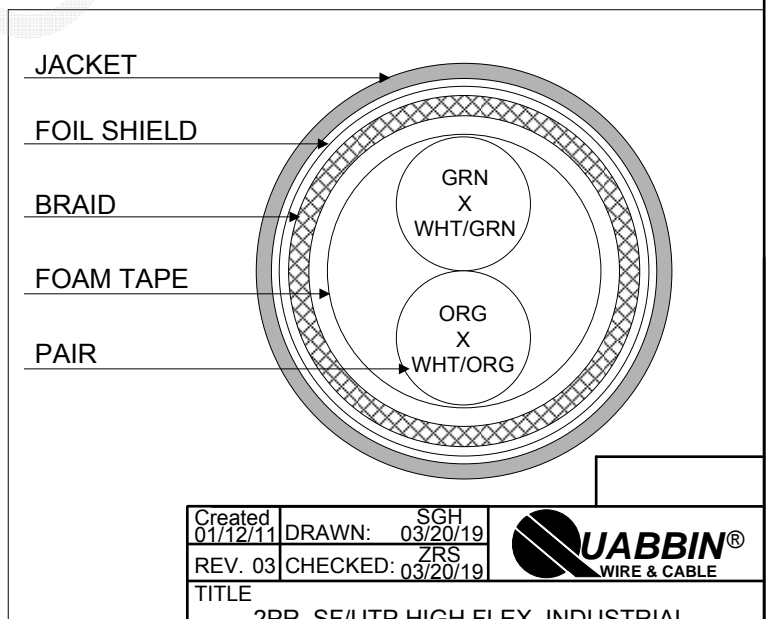
4) AGENCY APPROVALS:  
NEC (ETL) TYPE CMX  
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

5) APPLICATION:  
PASSES VW-1

6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)  
QUABBIN DATAMAX EXTREME HIGH FLEX ZERO HALOGEN INDUSTRIAL ETHERNET/IP PATCH CORD CAT 5e SF/UTP P/N (**P/N PER CHART 1**) -- C(ETL)US TYPE CMX OIL RES I 2 PR 26 AWG 75C -- CE RoHS -- (**LOT DESIGNATOR**) (**SEQUENTIAL FOOTAGE**)

7) COLOR CODE:  
1. GREEN X WHITE/GREEN  
2. ORANGE X WHITE/ORANGE

8) PACKAGING:  
TO BE PACKAGED AS PER QWC'S STANDARD PACKAGING



CUSTOMER APPROVAL:

DATE:

|   |                          |         |
|---|--------------------------|---------|
| Created<br>01/12/11   | DRAWN: SGH<br>03/20/19   |         |
| REV. 03   | CHECKED: ZRS<br>03/20/19 |         |
| TITLE<br>2PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET PATCH CORD -- CAT 5e |                          |         |
| DRAWING #   |                          | QWC0012 |
|   |                          | 1 of 2  |

3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 68 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184  
 CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 68 METER LENGTH  
 CAPACITANCE, MUTUAL, NOM. 13.5 PF/FT. AT 1 MHz  
 DIELECTRIC WITHSTANDING, MIN. 1500V RMS  
 VOLTAGE RATING, MAX. 300V  
 D.C. RESISTANCE, MAX. 42.6 Ω/1,000'

**NOTE:** TESTING FOR THE FOLLOWING IS CONDUCTED OFF THE REEL. (FOR 100m OF CABLE)

|   |                  |   |
|---|------------------|---|
| IMPEDANCE                                 | 100 ± 15 Ω       | 1 - 100 MHz   |
| IMPEDANCE, SMOOTHED                       | 100 ± 10 Ω       | TYPICAL 5 - 100 MHz                                       |
| RETURN LOSS                               | 1 ≤ f < 10 MHz   | 20 + 6 LOG(f) dB MIN*                                     |
|   | 10 ≤ f < 20 MHz  | 26 dB MIN*  |
|   | 20 ≤ f ≤ 100 MHz | 26 - 5 LOG(f/20) dB MIN*                                  |
| NEXT                                      | 1 ≤ f ≤ 100 MHz  | 35.3 - 15 LOG(f/100) dB MIN                               |
| ACRF                                      | 1 ≤ f ≤ 100 MHz  | 23.8 - 20 LOG(f/100) dB MIN                               |
| INSERTION LOSS                            | 1 ≤ f ≤ 100 MHz  | 1.5[1.967 <sup>√(f)</sup> + 0.023(f) + 0.050/√(f)] dB MAX |
| DELAY                                     | 1 ≤ f ≤ 100 MHz  | 534 + 36/√(f) ns MAX                                      |
| DELAY SKEW                                | 1 ≤ f ≤ 100 MHz  | <25 ns  |
| COUPLING ATTENUATION<br>PER IEC 62153-4-9 | 30 ≤ f ≤ 100 MHz | 60 dB MINIMUM   |
| VELOCITY OF PROPAGATION                   | 68%              |   |

\*PER ODVA VOLUME 2 ETHERNET/IP

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TITLE  
 2PR. SF/UTP HIGH FLEX INDUSTRIAL  
 ETHERNET PATCH CORD -- CAT 5e

DRAWING # QWC0012

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