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| 1) CONSTRUCTION: | | NOM. DIA. |
| CONDUCTOR: | 24 AWG 7/32 STRANDED TINNED COPPER | .0236" |
| INSULATION: | HIGH DENSITY POLYETHYLENE, .011" NOM. WALL THICKNESS | .046" |
| PAIRS: | COLOR CODED SINGLES TWISTED INTO PAIRS | .092" |
| CABLE: | (4) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE. | .197" |
| 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. | .216" |
| JACKET: | THERMOPLASTIC ELASTOMER, (COLOR, PER CHART 1), .037" NOM. WALL THICKNESS (PRESSURE) OVERALL CABLE DIAMETER | .290" ± .010" (BY CALIPER) |

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| 2) PHYSICAL PROPERTIES: | |
| TEMPERATURE RATING, MAX. | 75°C & 80°C |
| TEMPERATURE RATING, MIN. | -40°C (MANUFACTURER'S RECOMMENDED) |
| WT./M', NOM., NET. | 46.7 LBS. |
| JACKET IS WELD SPATTER RESISTANT | |
| JACKET IS SUNLIGHT RESISTANT | |
| FLEX LIFE (126 CYCLES/MIN, @ 20°C) | 1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS) 10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS) |
| TORSION TEST (1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C) | 4.8 MILLION CYCLE TEST |
| PASSED ASSEMBLY TEST REQUIREMENTS | |
| JACKET CUTTING/MACHINING OIL RESISTANCE (6 MONTHS @ 20°C) | |
| TENSILE STRENGTH RETENTION, NOM. | 80% |
| ELONGATION RETENTION, NOM. | 100% |

CHART 1:

| QUABBIN P/N | JACKET COLOR |
|-------------|--------------|
| 5089 | BLACK |
| 5090 | TEAL |
| 5091 | BLUE |
| 5092 | RED |
| 5093 | VIOLET |
| 5097 | GRAY |
| 5934 | GREEN |

3) ELECTRICAL CHARACTERISTICS:
SEE PAGE 2

4) AGENCY APPROVALS:
UL AWM STYLE 2463 (80C 600V)
NEC (UL) TYPE CMX OUTDOOR - CM
CEC C(UL) TYPE CMX OUTDOOR - CM
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

5) APPLICATION:
U.S. PATENT NO. US 8,487,184 B2

6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)
QUABBIN DATAMAX EXTREME HIGH FLEX
INDUSTRIAL ETHERNET/IP PATCH CORD CAT 5e
SF/UTP P/N (**P/N PER CHART 1**) -- U.S. PATENT NO. US 8,487,184 B2 -- C(UL)US TYPE CMX OUTDOOR - CM 4PR 24 AWG 75C SUN RES OR AWM 2463 80C 600V -- CE RoHS -- (**LOT DESIGNATOR**) (**SEQUENTIAL FOOTAGE**)

7) COLOR CODE:
1. BLUE X WHITE/BLUE
2. ORANGE X WHITE/ORANGE
3. GREEN X WHITE/GREEN
4. BROWN X WHITE/BROWN

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

JACKET

FOIL SHIELD

BRAID

FOAM TAPE

PAIR

PS1470

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| Created 7/18/12 | DRAWN: BMD 04/01/22 | |
| REV. 13 | CHECKED: ZRS 04/04/22 | |
| TITLE 4PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 5e | | |
| DRAWING # | | 1 of 2 |

CUSTOMER APPROVAL: _____ DATE: _____

3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 85 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184
 CABLE WILL MEET CAT 5E CHANNEL REQUIREMENTS TO 85 METER LENGTH
 CAPACITANCE, MUTUAL, NOM. 13.5 PF/FT. AT 1 MHz
 DIELECTRIC WITHSTANDING, MIN. 2000V RMS
 VOLTAGE RATING, MAX. 600V
 D.C. RESISTANCE, MAX. 26.2 Ω /1,000' (14.0 Ω /100m)

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

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| IMPEDANCE | 100 \pm 15 Ω 1 - 100 MHz | |
| IMPEDANCE, SMOOTHED | 100 \pm 20 Ω TYPICAL 5 - 100 MHz | |
| RETURN LOSS | 1 $\leq f <$ 10 MHz | 20 + 6 LOG(f) dB MIN* |
| | 10 $\leq f <$ 20 MHz | 26 dB MIN* |
| | 20 $\leq f \leq$ 100 MHz | 26 - 5 LOG($f/20$) dB MIN* |
| NEXT | 1 $\leq f \leq$ 100 MHz | 35.3 - 15 LOG($f/100$) dB MIN |
| PSNEXT | 1 $\leq f \leq$ 100 MHz | 32.3 - 15 LOG($f/100$) dB MIN |
| ACRF | 1 $\leq f \leq$ 100 MHz | 23.8 - 20 LOG($f/100$) dB MIN |
| PSACRF | 1 $\leq f \leq$ 100 MHz | 20.8 - 20 LOG($f/100$) dB MIN |
| INSERTION LOSS | 1 $\leq f \leq$ 100 MHz | 1.2[1.967 \sqrt{f} + 0.023(f) + 0.050/ \sqrt{f}] dB MAX |
| DELAY | 1 $\leq f \leq$ 100 MHz | 534 + 36/ \sqrt{f} ns MAX |
| DELAY SKEW | 1 $\leq f \leq$ 100 MHz | <45 ns |
| COUPLING ATTENUATION TESTED PER IEC 62153-4-9 | 30 $\leq f \leq$ 100 MHz | \geq 60 dB E3* Segregation class d acc. EN 50174-2 |
| VELOCITY OF PROPAGATION | 68% | |

*PER ODVA VOLUME 2 ETHERNET/IP

PS1470

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| REV. 13 | CHECKED: ZRS 04/04/22 | |
| TITLE 4PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 5e | | |
| DRAWING # | | QWC0038 |
| | | 2 of 2 |

CUSTOMER APPROVAL:

DATE: