

1) CONSTRUCTION:

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|-------------|--|------------------------|-------------------------------|
| CONDUCTOR: | 24 AWG 7/32 STRANDED TINNED COPPER | NOM. DIA. | .0236" |
| INSULATION: | HIGH DENSITY POLYETHYLENE, .011" NOM. WALL THICKNESS | | .046" |
| PAIRS: | COLOR CODED SINGLES TWISTED INTO PAIRS | | .092" |
| CABLE: | 4 TWISTED PAIRS TWISTED TOGETHER WITH A CENTRAL SPLINE AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE. | | .228" |
| 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. | | .247" |
| JACKET: | THERMOPLASTIC ELASTOMER, (COLOR, PER CHART 1), .039" NOM. WALL THICKNESS (PRESSURE) | OVERALL CABLE DIAMETER | .325" ± .010" (BY PI TAPE) |

2) PHYSICAL PROPERTIES:

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| TEMPERATURE RATING, MAX. | 75°C & 80°C |
| TEMPERATURE RATING, MIN. | -20°C (PER UL 444 COLD BEND) |
| TEMPERATURE RATING, MIN. | -40°C (MANUFACTURER'S RECOMMENDED) |
| WT./M', NOM., NET. | 51.2 LBS. |
| JACKET IS SUNLIGHT RESISTANT | |
| JACKET IS WELD SPATTER RESISTANT | |
| JACKET IS CUTTING/MACHINING OIL RESISTANT (PER QUABBIN TEST REPORT #TR 08-0001) (6 MONTHS @ 20°C) | |
| TENSILE STRENGTH RETENTION, NOM. | 80% |
| ELONGATION RETENTION, NOM. | 100% |
| FLEX LIFE (PENDING) (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 (PENDING) (1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C) | 3 MILLION CYCLE TEST |

CHART 1:

| QUABBIN P/N | JACKET COLOR |
|-------------|--------------|
| 5922 | TEAL |
| 5925 | BLACK |
| 5935 | GRAY |

3) ELECTRICAL CHARACTERISTICS:

SEE PAGE 2

4) AGENCY APPROVALS:

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

5) APPLICATION:

SHIELDED FLEXIBLE PATCH/JUMPER CABLE TO SUPPORT SCREENED INDUSTRIAL ETHERNET/IP, TIA-568.2-D CATEGORY 6 AND 6a APPLICATIONS. U.S. PATENT NO. US 8,487,184 B2

6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)

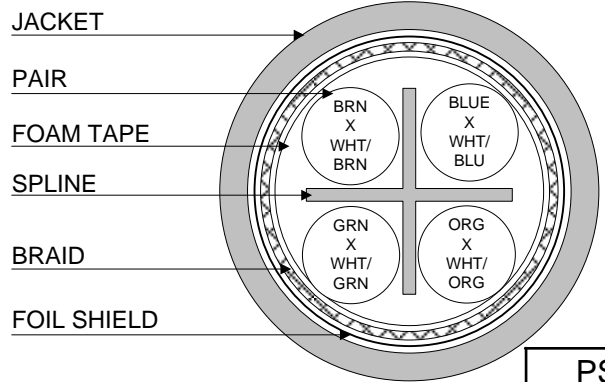
QUABBIN DATAMAX EXTREME HIGH FLEX INDUSTRIAL ETHERNET/IP CAT 6/6a SF/UTP PATCH CORD P/N (**QWC P/N PER CHART 1**) -- U.S. PATENT NO. US 8,487,184 B2 -- C(UL)US TYPE CMX OUTDOOR - CM 24 AWG 75C SUN RES OR AWM 2463 80C 600V -- CAT 6a TIA-568.2-D -- CE RoHS -- (**LOT DESIGNATOR**) (**SEQUENTIAL FOOTAGE**)

7) COLOR CODE:

1. WHITE/BLUE X BLUE
2. WHITE/ORANGE X ORANGE
3. WHITE/GREEN X GREEN
4. WHITE/BROWN X BROWN

8) PACKAGING:

TO BE PACKAGED AS PER QWC'S STANDARD PACKAGING



PS1510

| | | |
|---|-------------------------|---------|
| Created 02/17/14 | BMD DRAWN: 05/14/20 | |
| REV. 04 | JFR CHECKED: 5/18/20 | |
| TITLE 4 PR 24 AWG SF/UTP HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 6/6a | | |
| DRAWING# | | QWC0071 |
| | | 1 of 2 |

CUSTOMER APPROVAL:

DATE:

3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 88 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184
 CABLE WILL MEET CAT 6a CHANNEL REQUIREMENTS TO 88 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'

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

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|----------------------------|--|--|----------------------------|
| IMPEDANCE, NOM. | 100 ± 15 Ω 1 - 100 MHz 100 ± 20 Ω 100 - 500 MHz | | |
| RETURN LOSS | 1 ≤ f < 10 MHz 10 ≤ f < 20 MHz 20 ≤ f < 100 MHz 100 ≤ f ≤ 500 MHz | 20 + 6 LOG(f) dB MIN* 26 dB MIN* 26 - 5 LOG(f/20) dB MIN* 25 - 8.6 LOG(f/20) dB MIN | |
| PS NEXT | 1 ≤ f ≤ 500 MHz | 42.3 - 15 LOG(f/100) dB MIN | |
| NEXT | 1 ≤ f ≤ 500 MHz | 44.3 - 15 LOG(f/100) dB MIN | |
| PSACRF | 1 ≤ f ≤ 500 MHz | 24.8 - 20 LOG(f/100) dB MIN | |
| ACRF | 1 ≤ f ≤ 500 MHz | 27.8 - 20 LOG(f/100) dB MIN | |
| INSERTION LOSS | 1 ≤ f ≤ 500 MHz | 1.2 [1.82√(f) + 0.0091(f) + 0.25/√(f)] dB MAX | |
| DELAY | 1 ≤ f ≤ 500 MHz | 534 + 36/√(f) ns MAX | |
| DELAY SKEW | 1 ≤ f ≤ 500 MHz | <45 ns | |
| PS ANEXT LOSS (6 AROUND 1) | 1 ≤ f ≤ 500 MHz | 62.5 - 15 LOG(f/100) dB MIN 67 dB MIN | 50 - 500 MHz 1 - 50 MHz |
| PSAACRF | 1 ≤ f ≤ 500 MHz | 38.2 - 20 LOG(f/100) dB MIN | |
| COUPLING ATTENUATION | 30 ≤ f ≤ 250 MHz | 100 - 20 LOG(f) (MAX 60 dB) E3* | |
| VELOCITY OF PROPAGATION | 68% | | |

*PER ODVA VOLUME 2 ETHERNET/IP

PS1510

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| | | 2 of 2 |

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