

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:	(4) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE.	.143"
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.	.174"
JACKET:	THERMOPLASTIC ELASTOMER, ( <b>COLOR, PER CHART 1</b> ), .037" NOM. WALL THICKNESS (PRESSURE)	OVERALL CABLE DIAMETER .245" ± .005"

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C (JACKET 105°C, 75°C OIL)
TEMPERATURE RATING, MIN.	-20°C (PER UL 444 COLD BEND)
TEMPERATURE RATING, MIN.	-40°C (MANUFACTURER'S RECOMMENDED)
WT./M', NOM., NET.	35.3 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)	3 MILLION CYCLE TEST
JACKET CUTTING/MACHINING OIL RESISTANCE (PER QUABBIN TEST REPORT #TR 08-0001)	
(6 MONTHS @ 20°C)	
TENSILE STRENGTH RETENTION, NOM.	80%
ELONGATION RETENTION, NOM.	100%

CHART 1:

QUABBIN P/N	JACKET COLOR
5083	BLACK
5084	VIOLET
5088	TEAL
5045	BLUE
5046	RED

- 3) ELECTRICAL CHARACTERISTICS:  
SEE PAGE 2
- 4) AGENCY APPROVALS:  
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 (**QWC P/N PER CHART 1**) -- U.S. PATENT NO. US 8,487,184 B2 -- C(UL)US TYPE CMX OUTDOOR - CM 4PR 26 AWG 75C SUN RES -- 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

PS1426

Created 4/12/11	DRAWN: BMD 08/10/20
REV. 09	CHECKED: ZRS 08/10/20

TITLE  
4PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET PATCH CORD -- CAT 5e

DRAWING # **QWC0026** 1 of 2

CUSTOMER APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_

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, NOM.	100 ± 15 Ω	1 - 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
PSNEXT	1 ≤ f ≤ 100 MHz	32.3 - 15 LOG(f/100) dB MIN
ACRF	1 ≤ f ≤ 100 MHz	23.8 - 20 LOG(f/100) dB MIN
PSACRF	1 ≤ f ≤ 100 MHz	20.8 - 20 LOG(f/100) dB MIN
INSERTION LOSS	1 ≤ f ≤ 100 MHz	1.5[1.967 √f + 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 PER IEC 62153-4-9	30 ≤ f ≤ 100 MHz	50 dB MINIMUM
VELOCITY OF PROPAGATION	68%	

\*PER ODVA VOLUME 2 ETHERNET/IP

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	2 of 2

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