

1) CONSTRUCTION:  
 CONDUCTOR: 22 AWG 19/.0058 STRANDED TINNED COPPER  
 INSULATION: HIGH DENSITY POLYETHYLENE, .010" NOM. WALL THICKNESS  
 PAIRS: COLOR CODED SINGLES TWISTED INTO PAIRS  
 CABLE: (4) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH CLEAR POLYESTER TAPE TO FORM A CABLE CORE  
 JACKET: THERMOPLASTIC ELASTOMER, (COLOR, PER CHART 1), .042" NOM. WALL THICKNESS (PRESSURE)  
 OVERALL CABLE DIAMETER .290" NOM ± .005"

NOM. DIA.  
 .028"  
 .048" MAX.  
 .098"  
 .206"  
 .290" NOM ± .005"

2) PHYSICAL PROPERTIES:  
 TEMPERATURE RATING, MAX. 75°C & 80°C, (JACKET 105°C, 75°C OIL)  
 TEMPERATURE RATING, MIN. -40°C  
 WT./M', NOM., NET. 41.5 LBS.  
 JACKET IS WELD SPATTER RESISTANT  
 JACKET IS SUNLIGHT 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%  
 POE COMPLIANT (802.3af) TO 100 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184  
 CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 100 METER LENGTH  
 FLEX LIFE 1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS)  
 10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS)

CHART 1:

QUABBIN P/N	JACKET COLOR
5800	BLACK
5801	BLUE
5802	TEAL

3) ELECTRICAL CHARACTERISTICS:  
 SEE PAGE 2

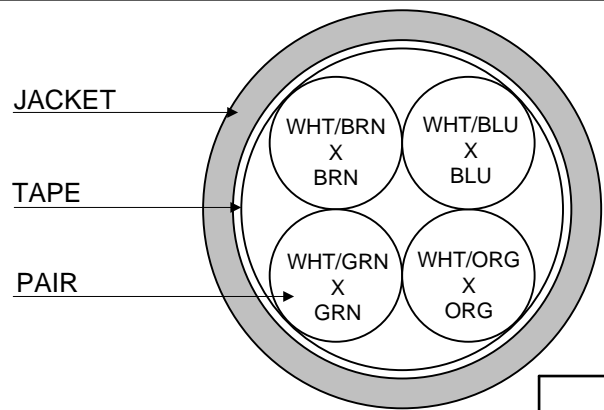
4) AGENCY APPROVALS:  
 UL AWM 2463 (80C 600V)  
 NEC (UL) TYPE PLTC  
 NEC (UL) TYPE CMX OUTDOOR - CM  
 CEC C(UL) TYPE CMX OUTDOOR - CM  
 PENNSYLVANIA D.E.P. – MSHA  
 EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II).

5) APPLICATION:  
 FOR APPLICATIONS REQUIRING A RUGGED PATCH CORD ASSEMBLY. DESIGNED TO RELIABLY TERMINATE TO M12 CONNECTORS. LOW LOSS DESIGN MEETS CAT 5E CHANNEL INSERTION LOSS AT 100M ALLOWING LONG PATCH RUNS.

6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)  
 QUABBIN DATAMAX EXTREME HI-FLEX INDUSTRIAL 5e  
 ETHERNET/IP PATCH CORD P/N (QWC P/N PER CHART 1)  
 -- (UL) TYPE PLTC OIL RES I & II SUN RES OR C(UL)US TYPE  
 CMX OUTDOOR - CM 4PR U/UTP 22 AWG 75C OR AWM  
 2463 80C 600V -- P-07-KA140018-MSHA -- 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) PUT UPS  
 AVAILABLE IN STANDARD 1000 FT  
 REELS OR IN LONGER BULK PUTUPS



Created 09/13/13 BMD  
 DRAWN: 03/21/18  
 REV. 05 CHECKED: ZRS  
 03/21/18



TITLE DATAMAX EXTREME HIGH FLEX INDUSTRIAL  
 ETHERNET PATCH CABLE -- 4 PR -- TYPE PLTC,  
 TYPE CMX OUTDOOR - CM, STYLE 2463, MSHA

DRAWING # QWC0036 1 of 2

CUSTOMER APPROVAL: DATE:

3) ELECTRICAL CHARACTERISTICS: (FOR 100m OF CABLE)


CAPACITANCE, MUTUAL, NOM.	13.5 PF/FT. AT 1 MHz
DIELECTRIC WITHSTANDING, MIN.	2000V RMS
VOLTAGE RATING, MAX.	600V
D.C. RESISTANCE, MAX.	6.0 Ω
IMPEDANCE, NOM.	100 ± 10 Ω 1 - 100 MHz
RETURN LOSS	$1 \leq f < 10 \text{ MHz}$ 20 + 6 LOG( <i>f</i> ) dB MIN* $10 \leq f < 20 \text{ MHz}$ 26 dB MIN* $20 \leq f \leq 100 \text{ MHz}$ 26- 5 LOG( <i>f</i> /20) dB MIN*
NEXT	$1 \leq f \leq 100 \text{ MHz}$ 35.3 - 15 LOG( <i>f</i> /100) dB MIN
PSNEXT	$1 \leq f \leq 100 \text{ MHz}$ 32.3 - 15 LOG( <i>f</i> /100) dB MIN
ACRF	$1 \leq f \leq 100 \text{ MHz}$ 23.8 - 20 LOG( <i>f</i> /100) dB MIN
PSACRF	$1 \leq f \leq 100 \text{ MHz}$ 20.8 - 20 LOG( <i>f</i> /100) dB MIN
INSERTION LOSS	$1 \leq f \leq 100 \text{ MHz}$ 1.1*[1.967 √ <i>f</i> + 0.023( <i>f</i> ) + 0.050/√ <i>f</i> ] dB MAX
DELAY	$1 \leq f \leq 100 \text{ MHz}$ 534 + 36/√ <i>f</i> ns MAX
DELAY SKEW	$1 \leq f \leq 100 \text{ MHz}$ < 45 ns
VELOCITY OF PROPAGATION	68%

\*PER ODVA VOLUME 2 ETHERNET/IP

NOTE: ALL TESTING IS CONDUCTED OFF THE REEL.

CUSTOMER APPROVAL:

DATE:

Created 09/13/13	DRAWN: BMD 03/21/18	
REV. 05	CHECKED: ZRS 03/21/18	
TITLE DATAMAX EXTREME HIGH FLEX INDUSTRIAL ETHERNET PATCH CABLE -- 4 PR -- TYPE PLTC, TYPE CMX OUTDOOR - CM, STYLE 2463, MSHA		
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