

1) CONSTRUCTION:		NOM. DIA.
CONDUCTOR:	22 AWG 19/0058 STRANDED TINNED COPPER	.0280"
INSULATION:	HIGH DENSITY POLYETHYLENE, .013" NOM. WALL THICKNESS	.055"
PAIRS:	COLOR CODED SINGLES TWISTED INTO PAIRS AND WRAPPED WITH AN OVERALL CLEAR POLYESTER TAPE	.113"
CABLE:	(2) TWISTED PAIRS CABLED TOGETHER EMBEDDED WITHIN A CORE OF THERMOPLASTIC ELASTOMER.	.292"
SHIELDS:	AN OVERALL SHIELD OF 36 AWG TINNED COPPER BRAID (65% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF AN OVERALL ALUMINIZED POLYESTER FOIL SHIELD (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID.	.318"
JACKET:	THERMOPLASTIC ELASTOMER, TEAL, .046" NOM. WALL THICKNESS (PRESSURE)	.410" (BY CALIPER)
	OVERALL CABLE DIAMETER	

2) PHYSICAL PROPERTIES:		
TEMPERATURE RATING, MAX.	75°C	
TEMPERATURE RATING, MIN. (STATIC)	-40°C	
WT./M', NOM., NET.		86.1 LBS.
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	

3) ELECTRICAL CHARACTERISTICS:  
SEE PAGE 2

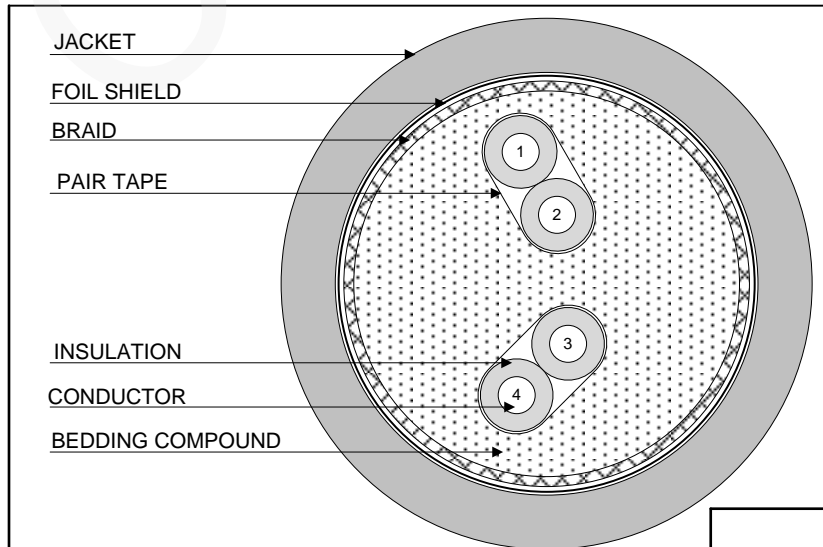
4) AGENCY APPROVALS:  
 NEC (UL) TYPE PLTC-ER  
 NEC (UL) TYPE CM  
 CEC C(UL) TYPE CM  
 EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

5) APPLICATION:  
PATCH CABLE FOR ETHERNET/IP CAT 5e APPLICATIONS.

6) PRINT:  
 QUABBIN DATAMAX EXTREME HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD P/N 5096 CAT 5e 2PR 22 AWG SHIELDED (UL) TYPE PLTC-ER 75C SUN RES -40C OR C(UL)US TYPE CM -- CE RoHS -- **(LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)**

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

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



Created 03/02/18	DRAWN: SGH 08/26/19	
REV. 02	CHECKED: ZRS 08/26/19	
TITLE 2 PAIR, 22 AWG, PE/TPE SHIELDED HIGH FLEX INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 5e		
QUABBIN P/N	5096	1 of 2

CUSTOMER APPROVAL:

DATE:

3) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 100 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184

CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 100 METER LENGTH


MUTUAL CAPACITANCE, MAX.	5.6 nF/100m AT 1 kHz @ 20°C
DIELECTRIC WITHSTANDING, MIN.	1500V RMS
VOLTAGE RATING, MAX.	300V
D.C. RESISTANCE, MAX.	17.5 Ω/1000' @ 20°C
D.C. RESISTANCE UNBALANCE, MAX.	5% @ 20°C
COUPLING ATTENUATION	30 ≤ f ≤ 100 MHZ ≥ 60 dB MIN
TESTED PER IEC 62153-4-9	
SURFACE TRANSFER IMPEDANCE	1 ≤ f ≤ 100 MHZ 10f mΩ/m

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

IMPEDANCE, CHARACTERISTIC	1 ≤ f ≤ 100 MHz	100 ± 15 Ω
CAPACITANCE UNBALANCE, MAX.: PAIR-TO-GROUND		330 pF/100m AT 1 kHz @ 20°C
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*
INSERTION LOSS	1 ≤ f ≤ 100 MHz	1.02(1.967 √f + 0.023(f) + 0.050/√f dB) MAX**
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
PROPAGATION DELAY	1 ≤ f ≤ 100 MHz	534 + 36/√f ns MAX
PROPAGATION DELAY SKEW	1 ≤ f ≤ 100 MHz	≤ 25 ns

\*PER ODVA VOLUME 2 ETHERNET/IP

\*\*2% HIGHER THAN HORIZONTAL CABLE SPECIFICATION PER TIA 568-C.2. CABLE MEETS THE CHANNEL REQUIREMENT AT 100M AND IS SUITABLE FOR 100M PLUG TO PLUG RUN.

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QUABBIN P/N	5096	2 of 2

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