

1) CONSTRUCTION:		NOM. DIA.
CONDUCTOR:	24 AWG 7/32 STRANDED TINNED COPPER	.0236"
INSULATION:	HIGH DENSITY POLYETHYLENE, .011" NOM. WALL THICKNESS	.046" ± .001"
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:	CHLORINATED POLYETHYLENE, BLACK, .037" NOM. WALL THICKNESS (PRESSURE) OVERALL CABLE DIAMETER	.290" ± .010" (BY CALIPER)

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C (JACKET TEMPERATURE RATING 90°C)
TEMPERATURE RATING, MIN.	-35°C (MANUFACTURER'S RECOMMENDED)
WT./M', NOM., NET.	45.9 LBS.
JACKET IS SUNLIGHT RESISTANT	
JACKET IS OIL RESISTANT	
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)	4.8 MILLION CYCLE TEST
PASSED ASSEMBLY TEST REQUIREMENTS	

3) ELECTRICAL CHARACTERISTICS:
SEE PAGE 2

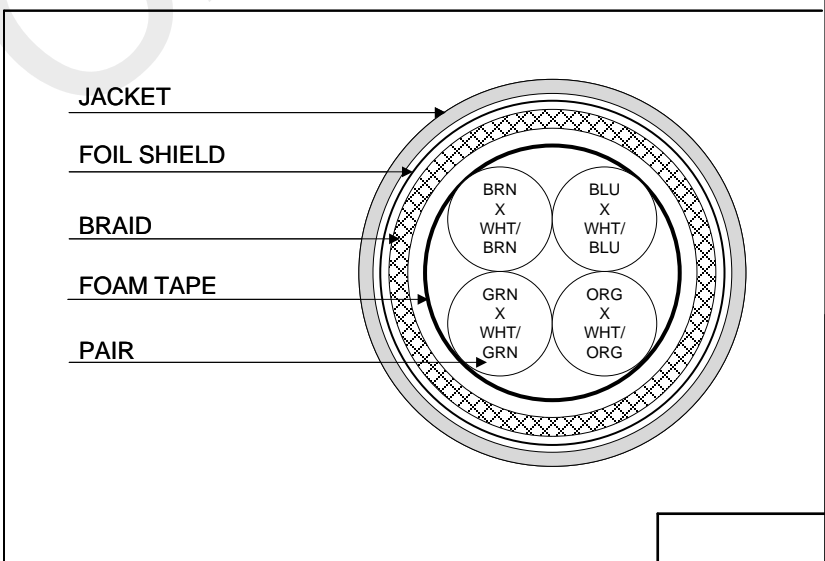
4) AGENCY APPROVALS:
NEC (UL) TYPE CMX OUTDOOR - CMR
CEC C(UL) TYPE CMX OUTDOOR - CMR
EU CE MARK: MEETS EU DIRECTIVE 2011/65/EU (RoHS II)

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

6) PRINT: (WHITE INK)
QUABBIN DATAMAX INDUSTRIAL
ETHERNET/IP PATCH CORD CAT 5e SF/UTP
P/N 5003 -- U.S. PATENT NO. US 8,487,184 B2
-- C(UL)US CMX OUTDOOR - CMR 4PR 24 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



CUSTOMER APPROVAL:

DATE:

Created 05/04/23	DRAWN: SGH 05/04/23	
REV. 01	CHECKED: ZRS 05/10/23	
TITLE 4PR. SF/UTP INDUSTRIAL ETHERNET/IP PATCH CORD -- CAT 5e -- C(UL)US CMX OUTDOOR - CMR		
QUABBIN P/N	5003	1 of 2

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. 1500V RMS
 VOLTAGE RATING, MAX. 300V
 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)

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

Created 05/04/23	DRAWN: SGH 05/04/23
REV. 01	CHECKED: ZRS 05/10/23



TITLE

4PR. SF/UTP INDUSTRIAL ETHERNET/IP PATCH CORD
 -- CAT 5e -- C(UL)US CMX OUTDOOR - CMR

QUABBIN P/N

5003

2 of 2

CUSTOMER APPROVAL:

DATE: