

1) CONSTRUCTION:		NOM. DIA.
CONDUCTOR:	24 AWG 7/32 STRANDED TINNED COPPER	.0236"
INSULATION:	HIGH DENSITY POLYETHYLENE, .011" NOM. WALL THICKNESS	.047"
PAIRS:	COLOR CODED SINGLES TWISTED INTO PAIRS	.092"
CABLE:	(2) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE.	.160"
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.	.191"
JACKET:	THERMOPLASTIC ELASTOMER, (COLOR PER CHART 1), .037" NOM. WALL THICKNESS (PRESSURE)	OVERALL CABLE DIAMETER .265" ± .010"

2) PHYSICAL PROPERTIES:	
TEMPERATURE RATING, MAX.	75°C & 80°C (JACKET 105°C, 75°C OIL)
TEMPERATURE RATING, MIN. (STATIC)	-40°C (MANUFACTURER'S RECOMMENDED)
WT./M', NOM., NET.	37.1 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 (6 MONTHS @ 20°C)	
TENSILE STRENGTH RETENTION, NOM.	80%
ELONGATION RETENTION, NOM.	100%
POE COMPLIANT (802.3af) TO 80 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184	
CABLE WILL MEET CAT 5e CHANNEL REQUIREMENTS TO 90 METER LENGTH	

CHART 1:

QUABBIN P/N	JACKET COLOR
5023	BLACK
5025	TEAL
5027	RED

3) ELECTRICAL CHARACTERISTICS:
SEE PAGE 2

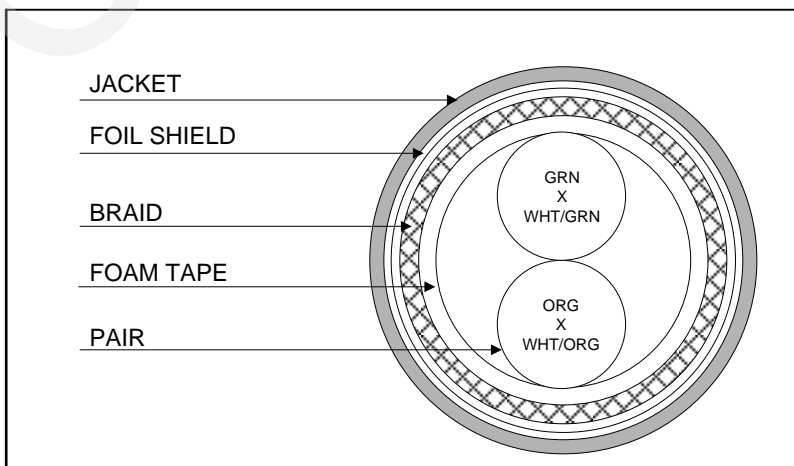
4) AGENCY APPROVALS:
UL AWM STYLE 2463 (80C 600V)
NEC (UL) TYPE CMX OUTDOOR - CM
CEC C(UL) TYPE CMX OUTDOOR - CM

5) APPLICATION:
RoHS COMPLIANT MATERIALS
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 (**P/N PER CHART 1**) -- C(UL)US TYPE CMX
OUTDOOR - CM 2PR 24 AWG 75C SUN RES OR AWM
2463 80C 600V -- RoHS -- (**LOT DESIGNATOR**)
(SEQUENTIAL FOOTAGE)

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

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



DATE:

CUSTOMER APPROVAL:

Created 1/17/13	DRAWN: BMD 11/17/15	
REV. 04	CHECKED: GBM 11/18/15	
TITLE 2PR. SF/UTP HIGH FLEX INDUSTRIAL ETHERNET PATCH CORD -- CAT 5e		
DRAWING#		QWC0053
		1 of 2

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

CAPACITANCE, MUTUAL, NOM.	13.5 PF/FT. AT 1 MHz @ 20°C	
DIELECTRIC WITHSTANDING, MIN.	2000V RMS	
VOLTAGE RATING, MAX.	600V	
D.C. RESISTANCE, MAX.	26.5 Ω/1,000' @ 20°C	
IMPEDANCE	100 +/- 15 Ω 1 ≤ f ≤ 100 MHz	
IMPEDANCE, SMOOTHED	100 +/- 10 Ω TYPICAL 5 ≤ f ≤ 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
ACRF	1 ≤ f ≤ 100 MHz	23.8 - 20 LOG(f/100) dB MIN
ATTENUATION	1 ≤ f ≤ 100 MHz	1.2[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	<25ns
COUPLING ATTENUATION PER IEC 62153-4-9	30 ≤ f ≤ 100 MHz	50 dB MINIMUM
VELOCITY OF PROPAGATION	68%	

*PER ODVA VOLUME 2 ETHERNET/IP

NOTE: ALL TESTING IS CONDUCTED OFF THE REEL.

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DRAWING#		QWC0053
		2 of 2

CUSTOMER APPROVAL:

DATE: