

1) CONSTRUCTION:

CONDUCTOR: 28 AWG 7/36 STRANDED TINNED COPPER  
 INSULATION: HIGH DENSITY POLYETHYLENE, .008" NOM. WALL THICKNESS

NOM. DIA.  
 .015"  
 .0325" MIN.  
 .0331" MAX.  
 .064"

PAIRS: COLOR CODED SINGLES TWISTED INTO PAIRS  
 CABLE: (4) TWISTED PAIRS TWISTED TOGETHER TO FORM A CABLE CORE  
 SHIELD: AN ALUMINUM POLYESTER ALUMINUM FOIL SHIELD (100% COVERAGE) SHALL BE APPLIED OVER THE CABLE CORE AND SHALL INCLUDE A 28 AWG STRANDED TINNED COPPER DRAIN WIRE IN CONTACT WITH THE OUTER SURFACE.

.146"

JACKET: POLYVINYLCHLORIDE, (COLOR, PER CHART 1), .020" NOM. WALL THICKNESS  
 OVERALL CABLE DIAMETER

.186" NOM  
 .191" MAX  
 (BY CALIPER)

2) PHYSICAL PROPERTIES:

TEMPERATURE RATING, MAX. 75°C  
 TEMPERATURE RATING, MIN. -20°C  
 WT./M', NOM., NET. 15.2 LBS.  
 CHART 1:

QUABBIN P/N	JACKET COLOR
2231	BLACK
2232	BROWN
2233	RED
2234	ORANGE
2235	YELLOW
2236	GREEN
2237	BLUE
2238	VIOLET
2239	GRAY
2240	WHITE
2241	BEIGE
2242	LIGHT BLUE
2243	PINK
2244	AQUA
2245	LIME

3) ELECTRICAL CHARACTERISTICS:

SEE PAGE 2

4) AGENCY APPROVALS:

NEC (UL) TYPE CMR  
 CEC C(UL) TYPE CMR

5) APPLICATION:

RoHS COMPLIANT MATERIALS. MEETS TIA 568.2-D CHANNEL REQUIREMENTS AT 56 METERS. 7.8 METERS OF PATCH CABLE WITH A 90 METERS PERMANENT LINK (97.8 METER CHANNEL) OR 10 METERS OF PATCH CABLE WITH AN 86 METER PERMANENT LINK (96 METER CHANNEL). SUPPORTS CAT 6A APPLICATIONS INCLUDING 10GBASE-T AT THESE LENGTHS. PATENT NO. US 9,355,759 B2

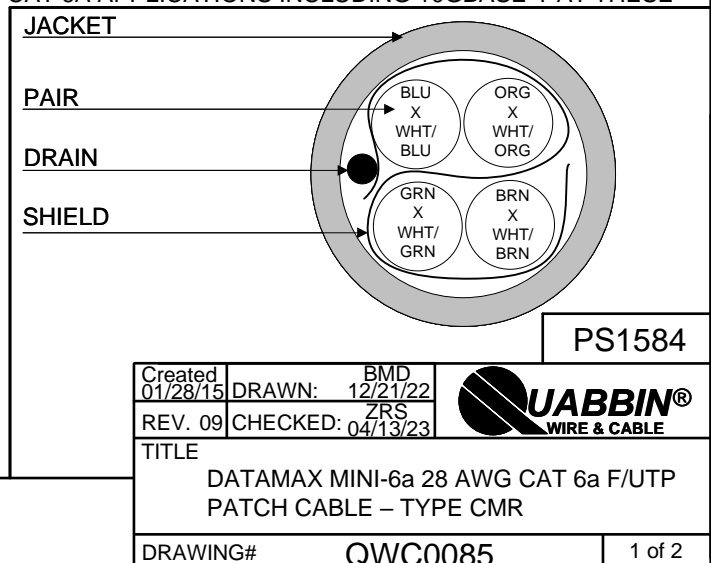
6) PRINT: (WHITE INK ON BLACK JACKET, ALL OTHERS BLACK INK)  
 QUABBIN DATAMAX MINI-6a F/UTP PATCH CORD P/N (QWC P/N PER CHART 1) -- PATENT NO. US 9,355,759 B2 -- C(UL)US TYPE CMR 28 AWG 75C -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)

7) COLOR CODE:

1. WHITE/ORANGE X ORANGE
2. WHITE/BROWN X BROWN
3. WHITE/GREEN X GREEN
4. WHITE/BLUE X BLUE

8) PUT UPS

TO BE PACKAGED AS PER QWC'S STANDARD PACKAGING



CUSTOMER APPROVAL:

DATE:

Created 01/28/15  
 DRAWN: 12/21/22  
 REV. 09  
 CHECKED: 04/13/23



TITLE  
 DATAMAX MINI-6a 28 AWG CAT 6a F/UTP  
 PATCH CABLE - TYPE CMR

DRAWING# QWC0085 1 of 2

3) ELECTRICAL CHARACTERISTICS:

CAPACITANCE, MUTUAL, NOM.	13.5 PF/FT. AT 1 MHz
DIELECTRIC WITHSTANDING, MIN.	1500V RMS
VOLTAGE RATING, MAX.	300V
D.C. RESISTANCE, NOM.	68.2 Ω/1000'

**NOTE:** TESTING FOR THE FOLLOWING IS CONDUCTED OFF THE REEL, USING 50m LENGTHS. (FOR 100m OF CABLE)

IMPEDANCE	100 ± 15 Ω	1 - 500 MHz	
IMPEDANCE, SMOOTHED	100 ± 10 Ω TYPICAL	5 - 500 MHz	
RETURN LOSS	1 ≤ f < 2 MHz	17 + 9.5 LOG (f) dB MIN	
	2 ≤ f < 10 MHz	20 + 5 LOG (f) dB MIN	
	10 ≤ f < 20 MHz	25 dB MIN	
	20 ≤ f ≤ 500 MHz	25 - 8.6 LOG(f/20) dB MIN	
PS NEXT	1 ≤ f ≤ 500 MHz	42.3 - 15 LOG(f/100) dB MIN	
NEXT	1 ≤ f ≤ 500 MHz	44.3 - 15 LOG(f/100) dB MIN	
PSACRF	1 ≤ f ≤ 500 MHz	24.8 - 20 LOG(f/100) dB MIN	
ACRF	1 ≤ f ≤ 500 MHz	27.8 - 20 LOG(f/100) dB MIN	
INSERTION LOSS	1 ≤ f ≤ 500 MHz	1.95 [1.82 √f + 0.0091(f) + 0.25/√f ] dB MAX	
DELAY	1 ≤ f ≤ 500 MHz	534 + 36/√f ns MAX	
DELAY SKEW	1 ≤ f ≤ 500 MHz	<45 ns	
TCL	1 ≤ f ≤ 500 MHz	30 - 10 LOG(f/100) dB MIN	
ELTCTL	1 ≤ f ≤ 30 MHz	35 - 20 LOG(f) dB MIN	
PS ANEXT LOSS (6 AROUND 1)	1 ≤ f ≤ 500 MHz	62.5 - 15 LOG (f/100) dB MIN	50 - 500 MHz
		67 dB MIN	1 - 50 MHz
PSAACRF	1 ≤ f ≤ 500 MHz	38.2 - 20 LOG(f/100) dB MIN	
VELOCITY OF PROPAGATION	68%		

PS1584

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REV. 09	CHECKED: ZRS 04/13/23	
TITLE DATAMAX MINI-6a 28 AWG CAT 6a F/UTP PATCH CABLE – TYPE CMR		
DRAWING#	QWC0085	2 of 2

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