

# Quabbin Ethernet Cable - Cat6/6a/6e

| Ethernet Cat6/6a/6e Cable Selection |                 |              |            |              |                                                                                                                              |                                                                                                                                              |                            |                          |                |
|-------------------------------------|-----------------|--------------|------------|--------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|----------------|
| Part Number                         | Wiring Standard | Jacket Color | Shield     | No. of Pairs | Pair Colors                                                                                                                  | Description                                                                                                                                  | Approximate Weight (lb/ft) | Minimum Cut Length (ft)* | Price per foot |
| <a href="#"><u>Q2034-1</u></a>      | 6a              | Black        | Shielded   | 4            | Pair 1: Natural & Orange<br>Pair 2: Gray & Brown<br>Pair 3: Natural & Green<br>Pair 4: Gray & Blue                           | shielded, 4 twisted pairs, 28 AWG, 7-stranded, tinned copper, foamed FEP conductor insulation material, PVC jacket, black, cut to length.    | 0.017                      | 20                       | \$1.16         |
| <a href="#"><u>Q2045-1</u></a>      | 6               |              |            |              |                                                                                                                              | shielded, 4 twisted pairs, 28 AWG, 7-stranded, tinned copper, foamed FEP conductor insulation material, PVC jacket, black, cut to length.    | 0.017                      |                          | \$1.10         |
| <a href="#"><u>Q2056-1</u></a>      | 6a              |              |            |              |                                                                                                                              | shielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, foamed FEP conductor insulation material, PVC jacket, black, cut to length.    | 0.022                      |                          | \$1.18         |
| <a href="#"><u>Q2067-1</u></a>      | 6               |              |            |              |                                                                                                                              | shielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, foamed FEP conductor insulation material, PVC jacket, black, cut to length.    | 0.022                      |                          | \$0.99         |
| <a href="#"><u>Q2206-1</u></a>      | Cat6e           | Blue         | Unshielded |              | Pair 1 - Blue/White & Blue<br>Pair 2 - Orange/White & Orange<br>Pair 3 - Green/White & Green<br>Pair 4 - Brown/White & Brown | unshielded, 4 twisted pairs, 24 AWG, 7-stranded, tinned copper, polyethylene conductor insulation material, PVC jacket, blue, cut to length. | 0.024                      |                          | \$0.49         |
| <a href="#"><u>Q2936-1</u></a>      | Cat6            |              | Shielded   |              |                                                                                                                              | shielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, polyethylene conductor insulation material, PVC jacket, blue, cut to length.   | 0.025                      |                          | \$0.72         |
| <a href="#"><u>Q2948-1</u></a>      | Cat6a           |              |            |              |                                                                                                                              | shielded, 4 twisted pairs, 26 AWG, 7-stranded, tinned copper, polyethylene conductor insulation material, PVC jacket, blue, cut to length.   | 0.025                      |                          | \$0.76         |

\*See web store for maximum cut lengths



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# Quabbin Ethernet Cable - Cat6a

| Ethernet Cat6a Cable Specifications |        |                                                                                                                                                                                                |                                                    |                                                    |
|-------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
|                                     |        | Physical Properties                                                                                                                                                                            |                                                    |                                                    |
|                                     |        | Q2948-1                                                                                                                                                                                        | Q2034-1                                            | Q2056-1                                            |
| Conductor Gauge and Stranding       |        | 26AWG 7/34 solid bare copper; 4 twisted pairs                                                                                                                                                  | 28AWG 7/36 stranded tinned copper; 4 twisted pairs | 26AWG 7/34 stranded tinned copper; 4 twisted pairs |
| Assembly                            |        | Individual conductors twisted into pairs with a central spline and polyester binder under foil shield and PVC Jacket                                                                           |                                                    |                                                    |
| Jacket                              |        | Blue Polyvinylchloride (PVC)                                                                                                                                                                   |                                                    |                                                    |
| Jacket Insulation Thickness         |        | 0.024 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Shield                              |        | Aluminized Polyester Foil Shield (Foil In, 100% Coverage) with 26AWG Tinned Copper Drain                                                                                                       |                                                    |                                                    |
| Cable Overall Diameter              |        | 0.235 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Temperature Rating                  |        | -20°C to 75°C (-4°F to 167°F)                                                                                                                                                                  |                                                    |                                                    |
| Plenum                              |        | No                                                                                                                                                                                             |                                                    |                                                    |
| Sunlight Resistant                  |        | No                                                                                                                                                                                             |                                                    |                                                    |
| Conductor Insulation                |        | High Density Polyethylene (HDPE)                                                                                                                                                               |                                                    |                                                    |
| Color Code                          | Pair 1 | Blue/White & Blue                                                                                                                                                                              |                                                    |                                                    |
|                                     | Pair 2 | Orange/White & Orange                                                                                                                                                                          |                                                    |                                                    |
|                                     | Pair 3 | Green/White & Green                                                                                                                                                                            |                                                    |                                                    |
|                                     | Pair 4 | Brown/White & Brown                                                                                                                                                                            |                                                    |                                                    |
| Bare Conductor Diameter             |        | 0.019 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Conductor Insulation Thickness      |        | 0.009 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Insulated Conductor Diameter        |        | 0.036 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Pair Diameter                       |        | 0.072 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Cabled Core Diameter                |        | 0.208 inch; Nominal                                                                                                                                                                            |                                                    |                                                    |
| Print Legend                        |        | QUABBIN DATAMAX 6a F/UTP 100 OHM PATCH CORD P/N xxxx -- TYPE CMR C(UL) US CMG 4 PR 26 AWG SHIELDED 75C -- FT4/IEEE 1202 -- CAT 6a TIA-568.2-D -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE) |                                                    |                                                    |



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# Quabbin Ethernet Cable - Cat6a

| Ethernet Cat6a Cable Specifications (continued)            |                                                                              |                                                                          |                                                                         |
|------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------|
|                                                            | Electrical Characteristics (for 100 meters of cable)                         |                                                                          |                                                                         |
|                                                            | Q2948-1                                                                      | Q2034-1                                                                  | Q2056-1                                                                 |
| Impedance (1-100 MHz)                                      | 100Ω ±15Ω (1-200 MHz)                                                        | 100Ω ±15Ω (1 - 500MHz)                                                   | 100 ± 15 Ω (1 - 100 MHz)<br>100 ± 20 Ω (100 - 500 MHz)                  |
| Capacitance                                                | 13.5 pF/ft @ 1MHz; Nominal                                                   |                                                                          |                                                                         |
| Resistance (nom)                                           | 26.0 Ω DC per 1000ft                                                         | 68.2 Ω DC per 1000ft                                                     | 42.6 Ω DC per 1000ft                                                    |
| Voltage Rating (max)                                       | 300V                                                                         |                                                                          |                                                                         |
| Dielectric Withstand, Min.                                 | 1500V RMS                                                                    |                                                                          |                                                                         |
| Return Loss                                                | $1 \leq f < 10 \text{ MHz}$ 20 + 5 LOG(f) dB MIN                             | $1 \leq f < 2 \text{ MHz}$ 17 + 9.5 LOG(f) dB MIN                        | $1 \leq f < 10 \text{ MHz}$ 20 + 5 LOG(f) dB MIN                        |
|                                                            | $10 \leq f < 20 \text{ MHz}$ 25 dB MIN                                       | $2 \leq f < 10 \text{ MHz}$ 20 + 5 LOG(f) dB MIN                         | $10 \leq f < 20 \text{ MHz}$ 25 dB MIN                                  |
|                                                            | $20 \leq f \leq 500 \text{ MHz}$ 25 – 8.6 LOG(f/20) dB MIN                   | $10 \leq f < 20 \text{ MHz}$ 25 dB MIN                                   | $20 \leq f \leq 250 \text{ MHz}$ 25 - 8.6 LOG(f/20) dB MIN              |
|                                                            | $1 \leq f \leq 500 \text{ MHz}$ 44.3 – 15 LOG(f/100) dB MIN                  | $20 \leq f < 500 \text{ MHz}$ 25 - 8.6 LOG(f) dB MIN                     |                                                                         |
| Near End Crosstalk (NEXT)                                  | $1 \leq f \leq 500 \text{ MHz}$ 42.3 – 15 LOG(f/100) dB MIN                  | $1 \leq f \leq 500 \text{ MHz}$ 44.3 - 15 LOG(f/100) dB MIN              |                                                                         |
| Power Sum Near End Crosstalk (PSNEXT)                      | $1 \leq f \leq 500 \text{ MHz}$ 24.8 – 20 LOG(f/100) dB MIN                  | $1 \leq f \leq 500 \text{ MHz}$ 42.3 - 15 LOG(f/100) dB MIN              |                                                                         |
| Power Sum Attenuation to Crosstalk Ratio, Far End (PSACRF) | N/A                                                                          | $1 \leq f \leq 500 \text{ MHz}$ 24.8 - 20 LOG(f/100) dB MIN              |                                                                         |
| Attenuation Crosstalk Ratio, Far End (ACRF)                | $1 \leq f \leq 500 \text{ MHz}$ 27.8 – 20 LOG(f/100) dB MIN                  | $1 \leq f \leq 500 \text{ MHz}$ 27.8 - 20 LOG(f/100) dB MIN              |                                                                         |
| Insertion Loss                                             | $1 \leq f \leq 500 \text{ MHz}$ 1.5[1.82√(f) + 0.0091(f) + 0.25/√(f)] dB MAX | $1 \leq f \leq 500 \text{ MHz}$ 1.95 [1.82 √f + 0.0091(f) + 0.25/√f ] dB | $1 \leq f \leq 500 \text{ MHz}$ 1.5 [1.82 √f + 0.0091(f) + 0.25/√f ] dB |
| Delay                                                      | $1 \leq f \leq 500 \text{ MHz}$ 534 + 36/√(f) ns MAX                         | $1 \leq f \leq 500 \text{ MHz}$ 534 + 36/√f ns MAX                       |                                                                         |
| Delay Skew                                                 | $1 \leq f \leq 500 \text{ MHz}$ <45ns MAX                                    |                                                                          |                                                                         |
| TCL                                                        | N/A                                                                          | $1 \leq f \leq 500 \text{ MHz}$ 30 - 10 LOG(f/100) dB MIN                |                                                                         |
| ELTCTL                                                     | N/A                                                                          | $1 \leq f \leq 30 \text{ MHz}$ 35 - 20 LOG(f) dB MIN                     |                                                                         |
| Velocity Of Propagation                                    | 0.68                                                                         |                                                                          |                                                                         |
| UL Classification                                          | (UL) Type CMR/CMG                                                            | NEC (ETL) TYPE CMP CEC C(ETL) TYPE CMP                                   |                                                                         |
| Agency Approvals                                           | cULus, RoHS                                                                  | cETLus, RoHS                                                             |                                                                         |

NOTE: All testing conducted off the reel.



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# DataMax® Ethernet Cables

## Quabbin DataMax Ethernet Cable

The Quabbin DataMax® Category network cables are proudly made in the USA and are available in Cat5e, 6, 6a or 6e. These cables are offered in 26AWG or 24AWG stranded tinned copper or bare solid copper in shielded or unshielded constructions. Designed to be round and smooth, Quabbin DataMax® Category network cables are compatible with most popular plugs for quick termination and easy installation.

When it comes to network cable, flexibility can mean many different things. The first and most obvious is the ease with which it bends. The importance behind having a pliable cable has to do with installation and cabinet routing. Flexibility allows easy manipulation between devices while increasing the durability, which is important when considering a lifetime of "moves & changes" that can occur in a dynamic network environment. Durability is paramount in allowing these changes to take place without compromising the cable.

The Quabbin DataMax® Category network cables exceed the requirements of ANSI/TIA-568-C.2, are compatible with Cat 5e and 6 hardware, and are suitable for applications from 10 Base-T to 1000 Base-T (Gigabit Ethernet).

Also available are Quabbin DataMax® MIL-spec Cat6 cables with black low smoke PVC jacket and special conductor insulations colors.

\* DataMax is a registered trademark of Quabbin Wire and Cable Corporation.

\*\* EtherNet/IP is a trademark of ODVA, Inc.

### Features

- Available in Category 5e, 6, 6e, and 6a
- In compliance with TIA 568-C.2 and TIA 1005
- Designed for use in EtherNet/IP systems \*\*
- 4 twisted pairs
- Unshielded or overall foil shields
- UL Type CM and UL AWM Style 2463 (80°C, 600V)
- Some cables available with conductor color code for MIL spec applications
- Cut to length in 1 foot increments
- Low 20 foot minimum length
- Made in the USA



Click on the thumbnail or go to  
<https://www.automationdirect.com/VID-WD-0016>  
 for a short introduction on our cut to length cable

