

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
<u>Q2034-1</u>	6a	Black	Shielded	4	Pair 1: Natural & Orange Pair 2: Gray & Brown Pair 3: Natural & Green 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
<u>Q2045-1</u>	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
<u>Q2056-1</u>	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
<u>Q2067-1</u>	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
<u>Q2206-1</u>	Cat6e	Blue	Unshielded		Pair 1 - Blue/White & Blue Pair 2 - Orange/White & Orange Pair 3 - Green/White & Green 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
<u>Q2936-1</u>	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
<u>Q2948-1</u>	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 - Cat6

Ethernet Cat6 Cable Specifications				
		Physical Properties		
		Q2936-1	Q2045-1	Q2067-1
Conductor Gauge and Stranding		26AWG 7/34 stranded tinned 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	Individual conductors twisted into pairs with LS PVC jacket	Individual conductors twisted into pairs with LS PVC jacket
Jacket		Blue Polyvinylchloride (PVC)	Black low smoke polyvinylchloride (PVC)	Black low smoke polyvinylchloride (PVC)
Jacket Insulation Thickness		0.024 inch; Nominal	0.021 inch; Nominal	0.021 inch; Nominal
Shield		Aluminized Polyester Foil Shield (Foil In, 100% Coverage) with 26AWG Tinned Copper Drain	Aluminized Polyester Foil Shield (Foil In, 100% Coverage) with 28AWG Tinned Copper Drain	Aluminized Polyester Foil Shield (Foil In, 100% Coverage) with 26 AWG Tinned Copper Drain
Cable Overall Diameter		0.235 inch; Nominal	0.186 inch, Nominal	0.228 inch, Nominal
Temperature Rating		-20°C to 75°C (-4°F to 167°F) -20°C to 105°C (-4°F to 221°F)		
Plenum		No	Yes	
Sunlight Resistant		No		
Conductor Insulation		High Density Polyethylene (HDPE)	Foamed FEP	
Color Code	Pair 1	Blue/White & Blue	Natural & Orange	
	Pair 2	Orange/White & Orange	Grey & Brown	
	Pair 3	Green/White & Green	Natural & Green	
	Pair 4	Brown/White & Brown	Grey & Blue	
Bare Conductor Diameter		0.019 inch; Nominal	0.015 inch; Nominal	0.019 inch; Nominal
Conductor Insulation Thickness		0.009 inch; Nominal	0.008 inch; Nominal	0.010 inch; Nominal
Insulated Conductor Diameter		0.036 inch; Nominal	0.031 inch; Nominal	0.039 inch; Nominal
Pair Diameter		0.072 inch; Nominal	0.062 inch; Nominal	0.078 inch; Nominal
Cabled Core Diameter		0.208 inch; Nominal	0.145 inch; Nominal	0.181 inch; Nominal
Print Legend		QUABBIN DATAMAX 6 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 6 TIA-568.2-D -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)	QUABBIN DATAMAX MINI-6 F/UTP PATCH CORD P/N xxxx -- PATENT PENDING -- C(ETL)US TYPE CMP 28 AWG 105C -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)	QUABBIN DATAMAX CAT 6 F/UTP PATCH CORD P/N xxxx -- PATENT PENDING -- C(ETL)US TYPE CMP 26 AWG 105C -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)



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Ethernet Cat6 Cable Specifications (continued)			
	Electrical Characteristics (for 100 meters of cable)		
	<u>Q2936-1</u>	<u>Q2045-1</u>	<u>Q2067-1</u>
Impedance (1-100 MHz)	100Ω ±15Ω (1-350 MHz)	100 ± 15 Ω (1 - 250 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 ≤ f < 10 MHz 20 + 5 LOG (f) dB MIN	1 ≤ f < 2 MHz 17 + 9.5 LOG(f) dB MIN	1 ≤ f < 10 MHz 20 + 5 LOG(f) dB MIN
	10 ≤ f < 20 MHz 25 dB MIN	2 ≤ f < 10 MHz 20 + 5 LOG(f) dB MIN	10 ≤ f < 20 MHz 25 dB MIN
	20 ≤ f ≤ 250 MHz 25 – 8.6 LOG(f/20) dB MIN	10 ≤ f < 20 MHz 25 dB MIN	20 ≤ f ≤ 250 MHz 25 - 8.6 LOG(f/20) dB MIN
	1 ≤ f ≤ 250 MHz 44.3 – 15 LOG(f/100) dB MIN	20 ≤ f < 250 MHz 25 - 8.6 LOG(f) dB MIN	
Near End Crosstalk (NEXT)	N/A	1 ≤ f ≤ 250 MHz 44.3 - 15 LOG(f/100) dB MIN	
Power Sum Near End Crosstalk (PSNEXT)	1 ≤ f ≤ 250 MHz 42.3 – 15 LOG(f/100) dB MIN	1 ≤ f ≤ 250 MHz 42.3 - 15 LOG(f/100) dB MIN	
Power Sum Attenuation to Crosstalk Ratio, Far End (PSACRF)	1 ≤ f ≤ 250 MHz 24.8 – 20 LOG(f/100) dB MIN	1 ≤ f ≤ 250 MHz 24.8 - 20 LOG(f/100) dB MIN	
Attenuation Crosstalk Ratio, Far End (ACRF)	1 ≤ f ≤ 250 MHz 27.8 – 20 LOG(f/100) dB MIN	1 ≤ f ≤ 250 MHz 27.8 - 20 LOG(f/100) dB MIN	
Insertion Loss	1 ≤ f ≤ 250 MHz 1.5[1.808√f + 0.017(f) + 0.2/√f] dB MAX	1 ≤ f ≤ 250 MHz 1.95 [1.808√f + 0.017(f) + 0.2/√f] dB MAX	1 ≤ f ≤ 250 MHz 1.5 [1.808√f + 0.017(f) + 0.20/√f] dB MAX
Delay	1 ≤ f ≤ 250 MHz 534 + 36/√f ns MAX	1 ≤ f ≤ 250 MHz 534 + 36/√f ns MAX	
Delay Skew	1 ≤ f ≤ 250 MHz <45ns	1 ≤ f ≤ 250 MHz <45ns MAX	
TCL	N/A	1 ≤ f ≤ 250 MHz 30 - 10 LOG(f/100) dB MIN	
ELTCTL	N/A	1 ≤ f ≤ 30 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	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

