

Cat6a Ethernet



Q2279-1 Cable Specifications

		Part Number	Wire/Cable Type	Flexibility	Minimum Cut Length (ft)*	Approximate Weight (lb/ft)	Price per foot
		Q2279-1	Cat6a Ethernet	Semi-flexible	20	0.02	\$0.84
Physical Properties							
Conductor Gauge		26 AWG		Conductor Stranding		7-Stranded Tinned Copper	
Conductor Material		Tinned Copper		Conductor Insulation Wall Thickness		0.011 in, nominal	
Conductor Assembly		4 twisted pairs		Bare Conductor Diameter		0.019 in, nominal	
Color Code	Pair 1	Blue, White/Blue		Insulated Conductor Diameter		0.041 in, nominal	
	Pair 2	Orange, White/Orange		Twisted Conductor Diameter		0.081 in, nominal	
	Pair 3	Green, White/Green		Overall Cable Diameter		0.230 in, nominal	
	Pair 4	Brown, White/Brown		Jacket Color		Black	
Voltage Rating		300V		Jacket Thickness		0.023 in, nominal	
Temperature Rating		-20 to 75 °C (-4 to 167 °F)		Jacket Material		low smoke zero halogen (LSZH)	
Plenum		No		Sunlight Resistant		No	
Shield		Shielded		Oil Resistance		No	
Drain		Yes		Flame Retardant		Yes	
Conductor Insulation Material		High-density Polyethylene (HDPE)		Sample Print Legend		QUABBIN DATAMAX LSZH 6a F/UTP PATCH CORD P/N xxxxx -- PATENT PENDING -- C(UL)US TYPE CM-LS 26 AWG 75C -- RoHS -- (LOT DESIGNATOR) (SEQUENTIAL FOOTAGE)	
Minimum Bend Radius		2.30in					
Cabled Core Diameter		0.180 in					
Electrical Characteristics (for 100 meters of cable)							
Impedance		100 ± 15 Ω (1 - 100 MHz) 100 ± 20 Ω (100 - 500 MHz)		UL Classification		NEC (UL) TYPE CM-LS; CEC C(UL) TYPE CM-LS	
Capacitance		13.5 pF/ft @ 1MHz; Nominal		Approvals**		cULus, RoHS	
Resistance, Max.		42.6 Ω DC per 1000ft		Attenuation Crosstalk Ratio, Far End (ACRF)		1 ≤ f ≤ 500 MHz: 27.8 - 20 LOG(f/100) dB MIN	
Dielectric Withstanding, Min.		1500V RMS		Insertion Loss		1 ≤ f ≤ 500 MHz: 1.5[1.82√(f + 0.0091(f + 0.25/√(f)))] dB MAX	
Return Loss		1 ≤ 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 MINPS		Power Sum Attenuation to Crosstalk Ratio, Far End (PSACRF)		1 ≤ f ≤ 500 MHz: 24.8 - 20 LOG(f/100) dB MIN	
Near End Crosstalk (NEXT)		1 ≤ f ≤ 500 MHz: 44.3 - 15 LOG(f/100) dB MIN		Cross Section			
Power Sum Near End Crosstalk (PSNEXT)		1 ≤ f ≤ 500 MHz: 42.3 - 15 LOG(f/100) dB MIN					
TCL		1 ≤ f ≤ 500 MHz: 30 - 10 LOG(f/100) dB MIN, 40 dB MIN					
ELTCTL		1 ≤ f ≤ 30 MHz: 35 - 20 LOG(f) dB MIN					
Velocity of Propagation		0.68					
Delay		1 ≤ f ≤ 500 MHz: 534 + 36/√(f) ns MAX					
Delay Skew		1 ≤ f ≤ 500 MHz: <45ns					

* See web store www.AutomationDirect.com for maximum cut lengths

** To obtain the most current agency approval information, see the Agency Approval Checklist section on the part number's web page at www.AutomationDirect.com



Please Note: Our prices on Ethernet Cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.



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

