

Customer Specification

PART NO. 74003

Construction

						Diameter ("in")	
1) Component 1						2 x 1 PAIR	
a) Conductor						26 (7/34) AWG Bare Copper	0.019
b) Insulation						0.010" Wall, Nom. Polypropylene (PP)	0.039
(1) Color(s)							
Pair	Color	Pair	Color	Pair	Color		
1	WHITE/BLUE - BLUE	2	WHITE/ORANGE - ORANGE				
c) Pair						2/Cond Cabled Together	
(1) Twists						Staggered Lays	
2) Cable Assembly						2 Components Cabled	
a) Twists						6.9 Twists/ft. (min.)	
c) Core Wrap						Clear Mylar Tape, 25% Overlap (min.)	
3) Shield						Alum/Mylar Tape, 25% Overlap (min.)	
a) Foil Direction						Foil Facing Out	
b) Braid						Tinned Copper, 80% Coverage (min.)	
4) Jacket						0.031" Wall, Nom., PVC	0.236 (0.249 max.)
a) Color(s)						BLACK	
b) Ripcord						1 End 810 Denier Nylon	
c) Print						ALPHA WIRE-* P/N 74003 2PR 26 AWG INDUSTRIAL ETHERNET SHIELDED ANSI/TIA-568-C.2 CAT5E VERIFIED CE ROHS (SEQ FOOTAGE) * = Factory Code	

Applicable Specifications

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Physical & Mechanical Properties				
1) Temperature Range			-40 to 80°C	
2) Bend Radius			5X Cable Diameter (static), 10X Cable Diameter (dynamic)	
3) Pull Tension			9 lbs. max.	
Electrical Properties			Engineering purposes only	
1) Max. operating voltage UL			300 V _{RMS}	
2) Dielectric strength cond. – cond. (2 sec.)			2.5kVdc	
3) D.C. resistance conductor			< 140 ω/km	
4) Resistance unbalance			< 2%	
5) D.C. insulation resistance			> 5000 Mω.km	
6) Mutual capacitance			< 56 nF/km	
7) Capacitance unbalance			< 1600 pF/km	
8) Velocity of propagation @ 4 – 100 MHz			≥ 60%	
9) Skew @ 1 – 100 MHz			≤ 40 ns/100m	
10) Propagation delay @ 1 – 100 MHz			≤ 534 + 36/√f ns/100m	
11) Mean characteristic impedance (Zcm) @ 100 MHz			100 ± 15 ω	
12) Input impedance 1-100MHz			100 ± 15 ω	
Frequency(MHz)	Max. Attenuation(dB/100m)	Min. NEXT(dB)	Min. ELFEXT(dB/100m)	Min. RL(dB)
0.772	-	67	-	19.4
1	3.2	65.3	63.8	20
4	6.0	56.3	51.8	23
10	9.5	50.3	43.8	25
16	12.1	47.2	39.7	25
20	13.6	45.8	37.8	25
25	15.3	44.3	35.8	24.3
31.25	17.1	42.9	33.9	23.6
62.5	24.8	38.3	27.9	21.5
100	32	35.3	23.8	20.1

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 500 FT	12 x 6 x 3.5 Continuous Length
	<i>Spool dimensions may vary slightly.</i>

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 74003

74003, RoHS-Compliant Commencing With 9/30/2013 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

Substance

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) , Including Deca-BDE	0.1% by weight (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% by weight (1000 ppm)
Dibutyl phthalate (DBP)	0.1% by weight (1000 ppm)
Diisobutyl phthalate (DIBP)	0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 9/19/2025

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