

# **Customer Specification**

### **PART NO. 74006**

### **Construction**

						Diameter ("in")	
1) Component 1					4 x 1 PAIR		
a) Conductor					26 (19/38) AWG Bare Copper	0.020	
b) Insulation				0.010" Wall, Nom. Polypropylene (PP)	0.040		
(1) Color(s)							
Pair	Color	Pair	Color	Pair	Color		
1	WHITE/BLUE - BLUE	3	WHITE/GREEN - GREEN				
2	WHITE/ORANGE - ORANGE	4	WHITE/BROWN - BROWN				
c) Pai	r					2/Cond Cabled Together	
(1) Tv	vists					Staggered Lays	
2) Cal	ble Assembly					4 Components Cabled	
a) Twists					5.3 Twists/ft. min.		
3) Shield					Alum/Mylar Tape, 25% Overlap (min.)		
a) Foil Direction					Foil Facing Out		
b) Bra	aid					Tinned Copper, 80% Coverage (min.)	
4) Jacket					0.031" Wall, Nom., TPU (ZH)	0.252 (0.266 max.)	
a) Color(s)					BLACK		
b) Jacket Separator				Nonwoven Polyester Tape, 25% Overlap, Min.			
c) Print				ALPHA WIRE-* P/N 74006 4PR 26 AWG INDUSTRIAL ETHERNET SHIELDED ANSI/TIA-568-C.2 CAT5E VERIFIED CE ROHS (SEQ FOOTAGE) * = Factory Code			

# **Applicable Specifications**

1) CSA International	FT2	
2) IEC	EN 60811-2-1 Oil Resistance	
	EN 60754-1 Acid Gas Generation	
3) Other	ANSI/TIA-568-C.2 Category 5e	
	ISO/IEC 11801 Category 5e Patch Cable	
	EN 50173-1	
4) CE	EU Low Voltage Directive 2014/35/EC	

### **Environmental**

This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011and the amending Directive 2015/863/EU of 4 June 2015. No exemptions are required for RoHS Compliance on this item. Refer to the RoHS Certificate of Compliance for more detail.
This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see Alpha's REACH SVHC Declaration.

Properties		

		Physical & Mecha	nical Prop			
3 Pull Tension   18 lbs. max.   4 Continuous Flex   2 million cycles   5 Torsional Flex   1 million cycles   1 million cycles   5 Torsional Flex   1 million cycles   1 million cycles   2 million cycles   1 million cycles   2 million cycle	1) Temperature Range					-40 to 80°C(static), -5 to 50°C (dynamic)
A   Continuous Flex   2 million cycles	2) Bend Radius					5X Cable Diameter (static), 10X Cable Diameter (dynamic)
Electrical Properties   Engineering purposes only	3) Pull Tension					18 lbs. max.
Electrical Properties   Engineering purposes only	4) Continuous Flex	х				2 million cycles
1) Max. operating voltage UL 2) Dielectric strength cond. – cond. (2 sec.) 2) Dielectric strength cond. – cond. – cond. (2 sec.) 2) Dielectric strength cond. – cond.	5) Torsional Flex					1 million cycles
2) Dielectric strength cond. – cond. (2 sec.)  3) D.C. resistance conductor  4) Resistance unbalance  5) D.C. insulation resistance  5) D.C. insulation resistance  6) Mutual capacitance  7) Capacitance unbalance  8) Velocity of propagation @ 4 - 100MHz  9) Skew @ 1 - 100 MHz  10) Propagation delay @ 1 - 100 MHz  11) Mean characteristic impedance (Zcm) @ 100 MHz  12) Input impedance 4 - 100MHz  Frequency(MHz)  Max.  Attenuation(dB/100m)  Min.  NEXT(dB)  NEXT(dB)  NEXT(dB)  NEXT(dB/100m  1 3.2  65 62 64 4 6.2 56 53 52 10 9.5 50 47 44 44 40		Electrical P	roperties	Engineering purposes only		
2) Dielectric strength cond. – cond. (2 sec.)  3) D.C. resistance conductor  4) Resistance unbalance  5) D.C. insulation resistance  5) D.C. insulation resistance  6) Mutual capacitance  7) Capacitance unbalance  8) Velocity of propagation @ 4 - 100MHz  9) Skew @ 1 - 100 MHz  10) Propagation delay @ 1 - 100 MHz  11) Mean characteristic impedance (Zcm) @ 100 MHz  12) Input impedance 4 - 100MHz  Frequency(MHz)  Max.  Attenuation(dB/100m)  Min.  NEXT(dB)  NEXT(dB)  NEXT(dB)  NEXT(dB/100m  1 3.2  65 62 64 4 6.2 56 53 52 10 9.5 50 47 44 44 40	1) Max. operating	voltage UL				300 V <sub>RMS</sub>
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 - 100MHz   ≥ 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 4 - 100MHz   100 ± 15 ω     12) Input impedance 4 - 100MHz   100 ± 15 ω     13.2	2) Dielectric streng	gth cond. – cond. (2 sec	C.)			
5) D.C. insulation resistance  6) Mutual capacitance  7) Capacitance unbalance  8) Velocity of propagation @ 4 - 100MHz  9) Skew @ 1 - 100 MHz  10) Propagation delay @ 1 - 100 MHz  11) Mean characteristic impedance (Zcm) @ 100 MHz  12) Input impedance 4 - 100MHz  Frequency(MHz)  Max.  Attenuation(dB/100m)  Min.  Mi	3) D.C. resistance	conductor				<140 ω/km
6) Mutual capacitance	4) Resistance unb	alance				< 2%
7) Capacitance unbalance  8) Velocity of propagation @ 4 - 100MHz  9) Skew @ 1 - 100 MHz  10) Propagation delay @ 1 - 100 MHz  11) Mean characteristic impedance (Zcm) @ 100 MHz  12) Input impedance 4 - 100MHz  12) Input impedance 4 - 100MHz  Frequency(MHz) Max. Attenuation(dB/100m) NEXT(dB) NEXT(dB) ELFEXT(dB/100m  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	5) D.C. insulation	resistance				> 5000 Mω.km
8) Velocity of propagation @ 4 - 100MHz ≥ 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 4 - 100MHz 100 ± 15 ω  Frequency(MHz) Max. Attenuation(dB/100m) NEXT(dB) NEXT(dB) ELFEXT(dB/100m  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	6) Mutual capacita	ance				< 56 nF/km
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 4 - 100MHz 100 ± 15 ω  Frequency(MHz) Max. Attenuation(dB/100m) NEXT(dB) NEXT(dB) ELFEXT(dB/100m  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	7) Capacitance un	balance				< 1600 pF/km
10) Propagation delay @ 1 - 100 MHz   $\leq 534 + 36/\sqrt{f} \text{ ns/100m}$   11) Mean characteristic impedance (Zcm) @ 100 MHz   $100 \pm 15 \omega$   $100 \pm 15 \omega$	8) Velocity of prop	pagation @ 4 - 100MHz	<u>z</u>			≥ 60%
11) Mean characteristic impedance (Zcm) @ 100 MHz  12) Input impedance 4 - 100MHz  Frequency(MHz)  Max. Attenuation(dB/100m)  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	9) Skew @ 1 - 100	) MHz				≤ 40 ns/100m
12) Input impedance 4 - 100MHz  Frequency(MHz) Max. Attenuation(dB/100m) NEXT(dB) NEXT(dB) ELFEXT(dB/100m  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	10) Propagation d	lelay @ 1 - 100 MHz				≤ 534 + 36/√f ns/100m
Frequency(MHz) Max. Attenuation(dB/100m) Min. Min. PS- Min. NEXT(dB) ELFEXT(dB/100m  1 3.2 65 62 64  4 6.2 56 53 52  10 9.5 50 47 44  16 12.1 47 44 40	11) Mean characte	eristic impedance (Zcm)	) @ 100 MI	Hz		100 ± 15 ω
Frequency(MHz)         Attenuation(dB/100m)         NEXT(dB)         NEXT(dB)         ELFEXT(dB/100m)           1         3.2         65         62         64           4         6.2         56         53         52           10         9.5         50         47         44           16         12.1         47         44         40	12) Input impedar	nce 4 - 100MHz				100 ± 15 ω
Frequency(MHz) Attenuation(dB/100m) NEXT(dB) NEXT(dB) ELFEXT(dB/100m  1						
4     6.2     56     53     52       10     9.5     50     47     44       16     12.1     47     44     40	Frequency(MHz)					
10     9.5     50     47     44       16     12.1     47     44     40	1	3.2	65	62	64	
16 12.1 47 44 40	4	6.2	56	53	52	
	10	9.5	50	47	44	
31.25   17.9   43   40   34	16	12.1	47	44	40	
	31.25	17.9	43	40	34	
62.5 24.8 38 35 28	62.5	24.8	38	35	28	
100 32.0 35 32 24	100	32.0	35	32	24	

### **Other**

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

### www.alphawire.com

Alpha Wire 2200 US Highway 27 South Richmond, IN 47374

Tel: 1-800-52 ALPHA

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## **EU/UK/China ROHS CERTIFICATE OF COMPLIANCE**

To Whom It May Concern:

Alpha Wire Part Number: 74006

74006, 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	<b>Maximum Control Value</b>
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)

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering

12/13/2024

Alpha Wire 2200 US Highway 27 South Richmond, IN 47374 Tel: 1-908-925-8000

# **Mouser Electronics**

**Authorized Distributor** 

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