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# Customer Specification

## PART NO. 74005

### Construction

		Diameters (In)			
1) Component 1		1 X 4 COND			
a) Conductor		22 (19/34) AWG Tinned Copper		0.032	
b) Insulation		0.0145" Wall, Nom. Polypropylene(PP)		0.061	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	WHITE	3	YELLOW		
2	BLUE	4	ORANGE		
c) Cabling		4 COND Cabled			
(1) Twists:		6.9 Twists/foot (min)			
d) Jacket		0.010" Wall, Nom., TPE		0.169	
(1) Color(s)		WHITE			
2) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing Out			
b) Braid		Tinned Copper, 85% Coverage, Min.			
3) Jacket		0.031" Wall, Nom., TPU (ZH)		0.256 (0.271 Max.)	
a) Color(s)		GREEN			
b) Jacket Separator		Nonwoven Polyester Tape, 25% Overlap, Min.			
c) Print		ALPHA WIRE-* P/N 74005 4C 22 AWG INDUSTRIAL ETHERNET PROFINET TYPE C SHIELDED CAT5 FT2 CE ROHS (SEQ FOOTAGE) * = Factory Code			

### Applicable Specifications

1) CSA International	FT2	
2) IEC	EN 60811-2-1 Oil Resistance	
3) Other	ISO/IEC 11801 Category 5	
4) CE:	EU Low Voltage Directive 2014/35/EC	

### Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for RoHS C of C.
2) REACH Regulation (EC 1907/2006):	
	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 & Mechanical Properties																																																									
1) Temperature Range	-40 to 80°C																																																								
2) Bend Radius	4X Cable Diameter(static), 5X Cable Diameter(dynamic)																																																								
3) Pull Tension	28 Lbs, Maximum																																																								
4) Torsional Flex	2 million cycles																																																								
Electrical Properties (For Engineering purposes only)																																																									
1) Max. operating voltage UL	300 V <sub>RMS</sub>																																																								
2) Test voltage wire-wire/wire-screen	2.5kVdc																																																								
3) Maximum conductor DC-resistance @ 20°C	57.1 Ω/km																																																								
4) Transfer impedance @ 10MHz	< 10 mOhm/m																																																								
5) Nom. velocity of propagation	68 %																																																								
6) Delay	< 5.3 ns/m																																																								
7) Impedance @ 1 – 100 MHz	100 ± 15 Ω																																																								
8) ISO/IEC 11801 ed. 2.0, Cat.5 as a minimum.																																																									
	<table border="1"> <thead> <tr> <th>Frequency(MHz)</th> <th>Max. Attenuation(dB/100m)</th> <th>Min. NEXT(dB)</th> <th>Min. PS-NEXT(dB)</th> <th>Min. ELFEXT (dB/100m)</th> <th>Min. PS-ELFEXT (dB/100m)</th> <th>Min. RL(dB)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2.1</td> <td>65</td> <td>62</td> <td>64</td> <td>61</td> <td>-</td> </tr> <tr> <td>4</td> <td>4</td> <td>56</td> <td>53</td> <td>52</td> <td>49</td> <td>23</td> </tr> <tr> <td>10</td> <td>6.3</td> <td>50</td> <td>47</td> <td>44</td> <td>41</td> <td>25</td> </tr> <tr> <td>16</td> <td>8</td> <td>47</td> <td>44</td> <td>40</td> <td>37</td> <td>25</td> </tr> <tr> <td>31.25</td> <td>11.4</td> <td>43</td> <td>40</td> <td>34</td> <td>31</td> <td>23.6</td> </tr> <tr> <td>62.5</td> <td>16.5</td> <td>38</td> <td>35</td> <td>28</td> <td>25</td> <td>21.5</td> </tr> <tr> <td>100</td> <td>21.3</td> <td>35</td> <td>32</td> <td>24</td> <td>21</td> <td>20.1</td> </tr> </tbody> </table>	Frequency(MHz)	Max. Attenuation(dB/100m)	Min. NEXT(dB)	Min. PS-NEXT(dB)	Min. ELFEXT (dB/100m)	Min. PS-ELFEXT (dB/100m)	Min. RL(dB)	1	2.1	65	62	64	61	-	4	4	56	53	52	49	23	10	6.3	50	47	44	41	25	16	8	47	44	40	37	25	31.25	11.4	43	40	34	31	23.6	62.5	16.5	38	35	28	25	21.5	100	21.3	35	32	24	21	20.1
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## Other

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

Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742)

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 74005

74005 , RoHS-Compliant Commencing With 9/30/2013 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above 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) 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.

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 & QA

8/1/2017

Alpha Wire

711 Lidgerwood Ave.

Elizabeth, NJ 07207

Tel: 1-908-925-8000