

# Customer Specification

## PART NO. 76032

### Construction

				Diameters (In)	
1) Component 1		4 X 1 PAIR			
a) Conductor		24 (7/32) AWG Tinned Copper		0.024	
b) Insulation		0.0105" Wall, Nom. Polyethylene, High Density		0.045	
(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) Pair		2/Cond Cabled Together			
(1) Twists:		24.0 Twists/foot (approx.)			
2) Cable Assembly		4 Components Cabled			
a) Twists:		2.0 Twists/foot (min)			
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER			
c) Core Wrap		Foam Polypropylene Tape, 25% Overlap, Min.			
3) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing Out			
b) Braid		Tinned Copper,75% Coverage, Min.			
4) Jacket		0.035" Wall, Nom.,TPE		0.322+/- 0.015	
a) Color(s)		TEAL			
b) Print		ALPHA WIRE-A3 P/N 76032 HIGH FLEX CAT6A SF/UTP 4P 24AWG E163860 C(UL)US CMX-OUTDOOR - CMR 75C SUN RES OR AWM 2463 80C 600V OIL RES II CE ROHS (SEQ FOOTAGE) <i>[Note: Product may have c(UL) or CSA markings depending upon plant of</i>			

	manufacture.]
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## Applicable Specifications

1) UL	CMR	75°C
	CMX-Outdoor	75°C
	SUN RES	
	AWM/STYLE 2463	80°C / 600 V <sub>RMS</sub>
2) Other	ISO/IEC 11801 Category 6A	
	ANSI/TIA-568.2-D Category 6A	
	OIL RES II	
	ODVA EtherNet/IP (TM) Compliant Category 5e	
3) CE:	EU Low Voltage Directive 2014/35/EU	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	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.
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.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 80°C
2) Bend Radius	8X Cable Diameter(static), 16X Cable Diameter(dynamic)
3) Pull Tension	32 Lbs, Maximum
4) Sunlight Resistance	Yes
5) Cable Weight	48 Lbs/1000Ft
Electrical Properties	(For Engineering purposes only)

1) Voltage Rating	600 V <sub>RMS</sub>																																																																																																																																		
2) Characteristic Impedance	100 Ω +/- 15																																																																																																																																		
3) Capacitance Unbalance	330 pf/100m @1 kHz, Maximum																																																																																																																																		
4) Velocity of Propagation	67 %																																																																																																																																		
5) Conductor DCR	14 Ω/100m @20°C, Maximum																																																																																																																																		
6) DCR Unbalance	4 % Maximum																																																																																																																																		
7) Skew	45 ns/100m Maximum																																																																																																																																		
<table><thead><tr><th colspan="3">Max. Insertion</th><th colspan="3">Min.</th></tr><tr><th>Frequency</th><th>Loss</th><th></th><th>Min. PSNEXT</th><th>Min. ACRF</th><th>Min. PSACRF</th><th>Return Loss</th></tr><tr><th>[MHz]</th><th>[dB]</th><th>Min. NEXT [dB]</th><th>[dB]</th><th>[dB]</th><th>[dB]</th><th>[dB]</th></tr></thead><tbody><tr><td>1</td><td>2.5</td><td>74.3</td><td>72.3</td><td>67.8</td><td>64.8</td><td>20.0</td></tr><tr><td>4</td><td>4.6</td><td>65.3</td><td>63.3</td><td>55.8</td><td>52.8</td><td>23.0</td></tr><tr><td>8</td><td>6.4</td><td>60.8</td><td>58.8</td><td>49.7</td><td>46.7</td><td>24.5</td></tr><tr><td>10</td><td>7.1</td><td>59.3</td><td>57.3</td><td>47.8</td><td>44.8</td><td>25.0</td></tr><tr><td>16</td><td>9.0</td><td>56.2</td><td>54.2</td><td>43.7</td><td>40.7</td><td>25.0</td></tr><tr><td>20</td><td>10.1</td><td>54.8</td><td>52.8</td><td>41.8</td><td>38.8</td><td>25.0</td></tr><tr><td>25</td><td>11.3</td><td>53.3</td><td>51.3</td><td>39.8</td><td>36.8</td><td>24.2</td></tr><tr><td>31.25</td><td>12.6</td><td>51.9</td><td>49.9</td><td>37.9</td><td>34.9</td><td>23.3</td></tr><tr><td>62.5</td><td>18.0</td><td>47.4</td><td>45.4</td><td>31.9</td><td>28.9</td><td>20.7</td></tr><tr><td>100</td><td>23.0</td><td>44.3</td><td>42.3</td><td>27.8</td><td>24.8</td><td>19.0</td></tr><tr><td>200</td><td>33.1</td><td>39.8</td><td>37.8</td><td>21.8</td><td>18.8</td><td>16.4</td></tr><tr><td>250</td><td>37.3</td><td>38.3</td><td>36.3</td><td>19.8</td><td>16.8</td><td>15.6</td></tr><tr><td>300</td><td>41.1</td><td>37.1</td><td>35.1</td><td>18.3</td><td>15.3</td><td>14.9</td></tr><tr><td>400</td><td>48.1</td><td>35.3</td><td>33.3</td><td>15.8</td><td>12.8</td><td>13.8</td></tr><tr><td>500</td><td>54.3</td><td>33.8</td><td>31.8</td><td>13.8</td><td>10.8</td><td>13.0</td></tr></tbody></table>							Max. Insertion			Min.			Frequency	Loss		Min. PSNEXT	Min. ACRF	Min. PSACRF	Return Loss	[MHz]	[dB]	Min. NEXT [dB]	[dB]	[dB]	[dB]	[dB]	1	2.5	74.3	72.3	67.8	64.8	20.0	4	4.6	65.3	63.3	55.8	52.8	23.0	8	6.4	60.8	58.8	49.7	46.7	24.5	10	7.1	59.3	57.3	47.8	44.8	25.0	16	9.0	56.2	54.2	43.7	40.7	25.0	20	10.1	54.8	52.8	41.8	38.8	25.0	25	11.3	53.3	51.3	39.8	36.8	24.2	31.25	12.6	51.9	49.9	37.9	34.9	23.3	62.5	18.0	47.4	45.4	31.9	28.9	20.7	100	23.0	44.3	42.3	27.8	24.8	19.0	200	33.1	39.8	37.8	21.8	18.8	16.4	250	37.3	38.3	36.3	19.8	16.8	15.6	300	41.1	37.1	35.1	18.3	15.3	14.9	400	48.1	35.3	33.3	15.8	12.8	13.8	500	54.3	33.8	31.8	13.8	10.8	13.0
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## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	16 x 11 x 8 Continuous length
b) 100 FT	12 x 4.5 x 3.5 Continuous length
	<i>[Spool dimensions may vary slightly]</i>

[www.alphawire.com](http://www.alphawire.com)

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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 76032

76032, RoHS-Compliant Commencing With 1/1/0001 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). 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	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:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering

2/9/2024

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