

## **Customer Specification**

**PART NO. 9853C**

### **Construction**

		Diameter ("in")			
1) Component 1		3 x 1 PAIR			
a) Conductor		20 (7/28) AWG TC		0.038	
b) Insulation		0.0195" Wall, Nom. Foam HDPE		0.077	
(1) Color(s)					
Pair	Color	Pair	Color	Pair	Color
1	GREEN-BLUE	2	YELLOW-ORANGE	3	WHITE-BROWN
c) Pair		2/Cond Cabled Together			
(1) Twists		4.0 Twists/foot (min.)			
Individually Applied					
d) Shield		Alum/Mylar Tape, 25% Overlap (min.)			
(1) Foil Direction		Foil Facing Out			
2) Component 2		1 x 1 PAIR			
a) Conductor		20 (7/28) AWG TC		0.038	
b) Insulation		0.010" Wall, Nom. PVC, Semi-Rigid		0.058	
(1) Color(s)					
Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED				
c) Pair		2/Cond Cabled Together			
(1) Twists		4.0 Twists/foot (min.)			
Individually Applied					
d) Shield		Alum/Mylar Tape, 25% Overlap (min.)			
(1) Foil Direction		Foil Facing Out			
3) Cable Assembly		4 Components Cabled			
a) Twists:		2.0 Twists/foot (min.)			
b) Common Drain Wire		22 (7/30) AWG TC			
c) Core Wrap		Clear Mylar Tape, 25% Overlap (min.)			
4) Shield		Alum/Mylar Tape, 25% Overlap (min.)			
a) Foil Direction		Foil Facing Out			
b) Braid		TC, 95% Coverage (min.)			
5) Jacket		0.035" Wall, Nom., PVC		0.401 (0.425 max.)	
a) Color(s)		SLATE			
b) Print		ALPHA WIRE-* P/N 9853C IEEE 802.3 TRANSCEIVER CABLE 4PR 20AWG SHIELDED 75C (UL) CM OR C(UL) CMG FT4 CE ROHS * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>			

## Applicable Specifications

1) UL	CM	75°C
2) CSA International	C(UL) TYPE CMG	75°C
	FT4	
3) CE	EU Low Voltage Directive 2006/95/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. No exemptions are required for RoHS Compliance on this item. Refer to the <a href="#">RoHS Certificate of Compliance</a> for more detail.
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 <a href="#">REACH SVHC Declaration</a> .
3) California Proposition 65	Outer surface materials used in manufacturing this part meet the requirements of California Proposition 65.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	96 lbs. max.
Electrical Properties	
	<i>Engineering purposes only</i>
1) Voltage Rating	300 V <sub>RMS</sub>
2) Component 1	
a) Characteristic Impedance	78 $\omega$ +/- 5
b) Inductance	0.2 $\mu$ H/ft., Nominal
c) Mutual Capacitance	16.7 pf/ft. @1 kHz, Nominal
d) Ground Capacitance	29.5 pf/ft. @1 kHz, Nominal
e) Velocity of Propagation	78%
f) Conductor DCR	10.2 $\omega$ /1000ft. @20°C, Nominal
g) Ind. Shield DC Resistance	5.2 $\omega$ /1000ft. @20°C, Nominal
h) Attenuation, Max dB/50M	3 @10 MHz
3) Component 2	
a) Mutual Capacitance	45 pf/ft. @1 kHz, Nominal
b) Conductor DCR	10.2 $\omega$ /1000ft. @20°C, Nominal
c) Ind. Shield DC Resistance	5.2 $\omega$ /1000ft. @20°C, Nominal
4) OA Shield DCR	2 $\omega$ /1000ft. @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	20 x 11 x 8 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: 9853C

9853C, RoHS-Compliant Commencing With 11/1/2004 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 7/17/2024

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