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# Customer Specification

## PART NO. M4220

### Construction

		Diameters (In)			
1) Component 1		2 X 1 COAX			
a) Conductor		20 (7/28) AWG TC		0.038	
b) Insulation		0.0205" Wall, Nom. Polyethylene(PE)		0.079	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	NATURAL	2	NATURAL		
2) Cable Assembly		2 Components Cabled			
a) Twists:		4.8 Twists/foot (min)			
3) Shield		TC BRAID Shield,85% Coverage, Min.			
4) Jacket		0.028" Wall, Nom.,Type IIA PVC		0.235 (0.245 Max.)	
a) Color(s)		BLACK			
b) Print		ALPHA WIRE-* P/N M4220 RG108 TYPE CE ROHS * = Factory Code			

### Applicable Specifications

1) Military	MIL-C-17/ RG 108 TYPE	85°C / 750 V <sub>RMS</sub>
2) CE:	EU Low Voltage Directive 2006/95/EC	

### 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.
3) California Proposition 65:	
	Exempt from warning labels based on the Consent Judgment. Please see Alpha's CA Prop 65 Statement for more information.

### Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 85°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	21.4 Lbs, Maximum
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	750 V <sub>RMS</sub>
2) Characteristic Impedance	78 Ω +/- 7
3) Inductance	0.119 μH/ft, Nominal
4) Mutual Capacitance	19.7 pf/ft @1 kHz, Nominal
5) Ground Capacitance	45.1 pf/ft @1 kHz, Nominal
6) Velocity of Propagation	66 %
7) Conductor DCR	9.5 Ω/1000ft @20°C, Nominal
8) OA Shield DCR	5.3 Ω/1000ft @20°C, Nominal
9) Attenuation, Nom dB/100ft	0.7 @ 1 MHz
	2.3 @ 10 MHz
	5.2 @ 50 MHz
	7.5 @ 100 MHz
	11 @ 200 MHz
	16 @ 400 MHz

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	12 x 10 x 5 Continuous length
b) 500 FT	12 x 4.5 x 3.5 Continuous length
c) 100 FT	6.5 x 4 x 2.5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>
<b>Notes:</b>	
a) One conductor has a bare strand for identification.	

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

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M4220

M4220 , RoHS-Compliant Commencing With 2/1/2006 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)

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 & QA

5/26/2020

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