

# Customer Specification

## PART NO. 5110/80C

### Construction

				Diameters (In)	
1) Component 1		80 X 1 COND			
a) Conductor		22 (7/30) AWG Tinned Copper		0.030	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.050	
(1) Color Code		Alpha Wire Color Code E			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	28	WHITE/BROWN/ RED	55	WHITE/VIOLET/S LATE
2	BROWN	29	WHITE/BROWN/ ORANGE	56	WHITE/BLACK/B ROWN/RED
3	RED	30	WHITE/BROWN/ YELLOW	57	WHITE/BLACK/B ROWN/ORANGE
4	ORANGE	31	WHITE/BROWN/ GREEN	58	WHITE/BLACK/B ROWN/YELLOW
5	YELLOW	32	WHITE/BROWN/ BLUE	59	WHITE/BLACK/B ROWN/GREEN
6	GREEN	33	WHITE/BROWN/ VIOLET	60	WHITE/BLACK/B ROWN/BLUE
7	BLUE	34	WHITE/BROWN/ SLATE	61	WHITE/BLACK/B ROWN/VIOLET
8	VIOLET	35	WHITE/RED/ORA NGE	62	WHITE/BLACK/B ROWN/SLATE
9	SLATE	36		63	

			WHITE/RED/YEL LOW		WHITE/BLACK/R ED/YELLOW
10	WHITE	37	WHITE/RED/GRE EN	64	WHITE/BLACK/R ED/GREEN
11	WHITE/BLACK	38	WHITE/RED/BLU E	65	WHITE/BLACK/R ED/BLUE
12	WHITE/BROWN	39	WHITE/RED/VIO LET	66	WHITE/BLACK/R ED/VIOLET
13	WHITE/RED	40	WHITE/RED/SLA TE	67	WHITE/BLACK/R ED/SLATE
14	WHITE/ORANGE	41	WHITE/ORANGE/ YELLOW	68	WHITE/BLACK/O RANGE/YELLOW
15	WHITE/YELLOW	42	WHITE/ORANGE/ GREEN	69	WHITE/BLACK/O RANGE/GREEN
16	WHITE/GREEN	43	WHITE/ORANGE/ BLUE	70	WHITE/BLACK/O RANGE/BLUE
17	WHITE/BLUE	44	WHITE/ORANGE/ VIOLET	71	WHITE/BLACK/O RANGE/VIOLET
18	WHITE/VIOLET	45	WHITE/ORANGE/ SLATE	72	WHITE/BLACK/O RANGE/SLATE
19	WHITE/SLATE	46	WHITE/YELLOW/ GREEN	73	WHITE/BLACK/Y ELLOW/GREEN
20	WHITE/BLACK/B ROWN	47	WHITE/YELLOW/ BLUE	74	WHITE/BLACK/Y ELLOW/BLUE
21	WHITE/BLACK/R ED	48	WHITE/YELLOW/ VIOLET	75	WHITE/BLACK/Y ELLOW/VIOLET
22	WHITE/BLACK/O RANGE	49	WHITE/YELLOW/ SLATE	76	WHITE/BLACK/Y ELLOW/SLATE
23	WHITE/BLACK/Y ELLOW	50	WHITE/GREEN/B LUE	77	WHITE/BLACK/G REEN/BLUE

24	WHITE/BLACK/GREEN	51	WHITE/GREEN/VIOLET	78	WHITE/BLACK/GREEN/VIOLET
25	WHITE/BLACK/BLUE	52	WHITE/GREEN/SLATE	79	WHITE/BLACK/GREEN/SLATE
26	WHITE/BLACK/VIOLET	53	WHITE/BLUE/VIOLET	80	WHITE/BLACK/BLUE/VIOLET
27	WHITE/BLACK/SLATE	54	WHITE/BLUE/SLATE		
2) Cable Assembly		80 Components Cabled			
a) Twists:		1.9 Twists/foot (min)			
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER			
c) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		22 (7/30) AWG Tinned Copper			
b) Braid		Tinned Copper,70% Coverage, Min.			
4) Jacket		0.053" Wall, Nom.,PVC		0.665 (0.698 Max.)	
a) Color(s)		Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N 5110/80C 80C 22 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C OR AWM 2464 80C 300V OR AWM 21894 105C 300V SUN RES 60C OIL VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

## Applicable Specifications

1) UL		
a) Component 1	AWM/STYLE 10002	105°C / 300 V <sub>RMS</sub>
b) Overall	AWM/STYLE 21894	105°C / 300 V <sub>RMS</sub>
	SUN RES	
	60C OIL	

	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	CM	105°C
	VW-1	
2) CSA International	CMG	105°C
	FT4	
3) IEC	EN 60332-1 Flame Behavior	
	EN 60332-2 Flame Behavior	
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.
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	-35 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	459 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	36 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	65 pF/ft @1 kHz, Nominal
4) Inductance	0.18 µH/ft, Nominal

5) Conductor DCR	16.6 $\Omega$ /1000ft @20°C, Nominal
6) OA Shield DCR	1.2 $\Omega$ /1000ft @20°C, Nominal

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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

Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207

Tel: 1-800-52 ALPHA (25742)

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure there accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

ALPHA WIRE - CONFIDENTIAL AND PROPRIETARY Notice to persons receiving this document and/or technical information. This document is confidential and is the exclusive property of ALPHA WIRE, and is merely on loan and subject to recall by ALPHA WIRE at any time. By taking possession of this document, the recipient acknowledges and agrees that this document cannot be used in any manner adverse to the interests of ALPHA WIRE, and that no portion of this document may be copied or otherwise reproduced without the prior written consent of ALPHA WIRE. In the case of conflicting contractual provisions, this notice shall govern the status of this document. <br /><br />©2019 ALPHA WIRE - all rights reserved.



## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5110/80C

5110/80C, RoHS-Compliant Commencing With 8/1/2005 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:

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

Dave Watson, Director of Engineering & QA

9/25/2020

Alpha Wire

711 Lidgerwood Ave.

Elizabeth, NJ 07207

Tel: 1-908-925-8000

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Alpha Wire:

[5110/80C SL001](#) [5110/80C SL002](#) [5110/80C SL005](#)