



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

Customer Specification

PART NO. M3454

Construction

		Diameters (In)			
1) Component 1		12 X 1 PAIR			
a) Conductor		24 (7/32) AWG TC		0.024	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.044	
(1) Color Code		Alpha Wire Color Code M			
Pair	Color	Pair	Color	Pair	Color
1	BLUE/WHITE - WHITE/BLUE	5	SLATE/WHITE - WHITE/SLATE	9	BROWN/RED - RED/BROWN
2	ORANGE/WHITE - WHITE/ORANGE	6	BLUE/RED - RED/BLUE	10	SLATE/RED - RED/SLATE
3	GREEN/WHITE - WHITE/GREEN	7	ORANGE/RED - RED/ORANGE	11	BLUE/BLACK - BLACK/BLUE
4	BROWN/WHITE - WHITE/BROWN	8	GREEN/RED - RED/GREEN	12	ORANGE/BLACK - BLACK/ORANGE
c) Pair		2/Cond Cabled Together			
(1) Twists:		9.6 Twists/foot (min)			
2) Component 2		1 X 1 COND			
a) Conductor		24 (7/32) AWG TC		0.024	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.044	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	BLACK/GREEN				
3) Cable Assembly		13 Components Cabled			
a) Twists:		2.7 Twists/foot (min)			
4) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing Out			
b) Drain Wire		24 (7/32) AWG TC			
c) Braid		TC,65% Coverage, Min.			
5) Jacket		0.032" Wall, Nom.,PVC		0.389 (0.410 Max.)	
a) Color(s)		SLATE			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N M3454 12PR 24 AWG 1C 24 AWG SHIELDED 75C CMG (UL) C(UL) OR AWM 2464 CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>			

Applicable Specifications

1) UL	AWM/STYLE 2464	80°C / 300 V _{RMS}
	CMG	75°C
2) CSA International	FT4	
	C(UL) TYPE CMG	75°C
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. 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:	
	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	97 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Component 1	
a) Mutual Capacitance	23.1 pf/ft @1 kHz, Nominal
b) Ground Capacitance	42 pf/ft @1 kHz, Nominal
c) Characteristic Impedance	82 Ω
d) Inductance	0.19 μH/ft, Nominal
e) Conductor DCR	26 Ω/1000ft @20°C, Nominal
f) OA Shield DCR	3.4 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	89 pf/ft @1 kHz, Nominal
b) Inductance	0.05 μH/ft, Nominal
c) Conductor DCR	26 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	3.4 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	20 x 11 x 8 Continuous length
b) 500 FT	16 x 11 x 8 Continuous length
c) 100 FT	12 x 10 x 5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

Tel: 1-800-52 ALPHA (25742)

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure their 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. ©2013 ALPHA WIRE - all rights reserved.



EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M3454

M3454 , RoHS-Compliant Commencing With 7/1/2005 Production

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, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. 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 11364-2006.

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)

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 Company:

Dave Watson, Director of Engineering & QA

5/13/2013