

Customer Specification

PART NO. 6450

Construction

						Diameter ("in")	
1) Component 1						2 x 1 COND	
a) Conductor						18 (7/26) AWG Tinned Copper	0.046
b) Insulation						0.025" Wall, Nom. FRPP	0.096
(1) Color(s)							
Cond	Color	Cond	Color	Cond	Color		
1	BLUE	2	WHITE				
2) Cable Assembly						2 Components Cabled	
a) Twists						6.9 Twists/ft. (min.)	
b) Orientation						Components to be arranged from INSIDE LAYER-to-OUTSIDE LAYER	
3) Shield						Alum/Mylar Tape, 25% Overlap (min.)	
a) Foil Direction						Foil Facing Out	
b) Drain Wire						20 (7/28) AWG Tinned Copper	
c) Braid						Tinned Copper, 55% Coverage (min.)	
4) Jacket						0.053" Wall, Nom., PVC	0.324+/- 0.015
a) Color(s)						BLUE	
b) Print						ALPHA WIRE-* P/N 6450 EXXXXX 1PR18 SHIELDED (UL) 600V 75C DRY SUN RES TYPE TC OR PLTC OR ITC OR CMG OR C(UL) CMG --- P-MSHA (MSHA #) CE ROHS (SEQ FOOTAGE EVERY 2 FT) * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>	

Applicable Specifications

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1) UL	TC	75°C / 600 V _{RMS}
	PLTC	75°C
	ITC	75°C
	CMG	75°C
	SUN RES	
2) CSA International	CMG	75°C
	FT4	
3) Other	PMSHA Specification	
4) CE	EU Low Voltage Directive 2014/35/EU	

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 2011and the amending Directive 2015/863/EU of 4 June 2015 . No exemptions are required for RoHS Compliance on this item. Refer to the RoHS Certificate of Compliance for more detail.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	40 lbs. max.
Electrical Properties	
	<i>Engineering purposes only</i>
1) Voltage Rating	600 V _{RMS}
2) Characteristic Impedance	78 ω +/- 5
3) Inductance	0.12 μH/ft., Nominal
4) Mutual Capacitance	19.5 pF/ft. @1 kHz, Nominal
5) Velocity of Propagation	65%
6) Conductor DCR	6.9 ω/1000ft. @20°C, Nominal
7) OA Shield DCR	3.2 ω/1000ft. @20°C, Nominal
8) Attenuation (max. dB/100ft.)	0.5 @ MHz
	2 @10 MHz
	3.8 @50 MHz
	5.4 @100 MHz
	7.6 @200 MHz
	10.7 @400 MHz

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 12 x 8 Continuous Length
b) 500 FT	12 x 12 x 3.5 Continuous Length
c) 100 FT	12 x 4.5 x 3.5 Continuous Length
	<i>Spool dimensions may vary slightly.</i>

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 6450

6450, RoHS-Compliant Commencing With 7/1/2008 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 2/22/2025

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