

# Customer Specification PART NO. 6450

## Construction

				Diameters (In	)	
1) Component 1		2 X 1 COND	2 X 1 COND			
a) Conductor		18 (7/26) AWG	18 (7/26) AWG TC		0.046	
b) Insulation		0.025" Wall, No	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	2 Components Cabled			
a) Twists:		6.9 Twists/foot	6.9 Twists/foot (min)			
3) Shield:		Alum/Mylar Ta	Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing Ou	Foil Facing Out			
b) Drain Wire		20 (7/28) AWG	20 (7/28) AWG TC			
c) Braid		TC,55% Cover	TC,55% Coverage, Min.			
4) Jacket		0.053" Wall, No	0.053" Wall, Nom.,PVC		0.324+/- 0.006	
a) Color(s)		BLUE	BLUE			
b) Print		EXXXXX 1PR1 TYPE TC OR F P-MSHA (MSH * = Factory Cod	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 #) (seq footage every 2 ft)  * = Factory Code  [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

**Applicable Specifications** 

1) UL	тс	75°C / 600 V <sub>RMS</sub>
	PLTC	75°C
	ітс	75°C
	СМС	75°C
	SUN RES	
2) CSA International	СМС	75°C
	FT4	
3) Other	PMSHA Specification	

# **Environmental**

1) EU Directive 2002/95/EC(RoHS):	
	All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture.

# **Properties**

1 Toportios		
Physical &Mechanical Properties		
1) Temperature Range	-40 to 75°C	
2) Bend Radius	10X Cable Diameter	
3) Pull Tension	40 Lbs, Maximum	
Electrical Properties	(For Engineering purposes only)	
1) Voltage Rating	600 V <sub>RMS</sub>	
2) Characteristic Impedance	78 O +/- 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 O/1000ft @20°C, Nominal	
7) OA Shield DCR	3.2 O/1000ft @20\°C, Nominal	
8) Attenuation, Max dB/100ft	0.5 @ 1 MHz	
	2 @ 10 MHz	
	3.8 @ 50 MHz	
	5.4 @ 100 MHz	
	7.6 @ 200 MHz	
	10.7 @ 400 MHz	

## Other

1) Packaging	
a) 1000 FT	
b) 500 FT	
c) 100 FT	

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:6450

6450, RoHS-Compliant Commencing With7/1/2008Production

This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, 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 these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.** 

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.1% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB) Polybrominated Diphenyl Ethers (PBDE)	0.1% by weight (1000 ppm)
Including Deca-BDE	0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering &QA

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