



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

# Customer Specification

## PART NO. 6441

Construction

		Diameters (In)			
1) Component 1		51 X 1 PAIR			
a) Conductor		22 (7/30) AWG TC			
b) Insulation		0.013" Wall, Nom. PVC		0.056	
(1) Color Code		Alpha Wire Company Color Code BR			
Pair	Color	Pair	Color	Pair	Color
1	BLACK#1-RED#1	18	BLACK#18-RED#18	35	BLACK#35-RED#35
2	BLACK#2-RED#2	19	BLACK#19-RED#19	36	BLACK#36-RED#36
3	BLACK#3-RED#3	20	BLACK#20-RED#20	37	BLACK#37-RED#37
4	BLACK#4-RED#4	21	BLACK#21-RED#21	38	BLACK#38-RED#38
5	BLACK#5-RED#5	22	BLACK#22-RED#22	39	BLACK#39-RED#39
6	BLACK#6-RED#6	23	BLACK#23-RED#23	40	BLACK#40-RED#40
7	BLACK#7-RED#7	24	BLACK#24-RED#24	41	BLACK#41-RED#41
8	BLACK#8-RED#8	25	BLACK#25-RED#25	42	BLACK#42-RED#42
9	BLACK#9-RED#9	26	BLACK#26-RED#26	43	BLACK#43-RED#43
10	BLACK#10-RED#10	27	BLACK#27-RED#27	44	BLACK#44-RED#44
11	BLACK#11-RED#11	28	BLACK#28-RED#28	45	BLACK#45-RED#45
12	BLACK#12-RED#12	29	BLACK#29-RED#29	46	BLACK#46-RED#46
13	BLACK#13-RED#13	30	BLACK#30-RED#30	47	BLACK#47-RED#47
14	BLACK#14-RED#14	31	BLACK#31-RED#31	48	BLACK#48-RED#48
15	BLACK#15-RED#15	32	BLACK#32-RED#32	49	BLACK#49-RED#49
16	BLACK#16-RED#16	33	BLACK#33-RED#33	50	BLACK#50-RED#50
17	BLACK#17-RED#17	34	BLACK#34-RED#34	51	BLACK#51-RED#51
c) Pair		2/Cond Cabled Together			
(1) Twists:		8.0 Twists/foot (min)			
Individually Applied:					
d) Shield:		Foil Free Alum/Mylar Tape, 25% Overlap, Min.			
(1) Foil Direction		Foil Facing In			
(2) Drain Wire		24 (7/32) AWG TC			
2) Cable Assembly		51 Components Cabled			
a) Twists:		0.9 Twists/foot (min)			
b) Core Wrap		Clear Mylar Tape, 25% Overlap, Min.			
3) Jacket		0.075" Wall, Nom.,PVC		1.020 (1.064 Max.)	
a) Color(s)		SLATE			
b) Print		ALPHA WIRE-* P/N 6441 51PR 22 AWG SHIELDED 105C (UL) TYPE PLTC SUN. RES. OR TYPE CM --- LLXXXXXX CSA TYPE CMG FT4 ROHS * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

## Applicable Specifications

1) UL	CM	105&deg;C
	PLTC	105&deg;C
	SUN RES	
2) CSA International	CMG	60&deg;C
	FT4	

## 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.
2) 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 105&deg;C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	740 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Mutual Capacitance	48 pf/ft @ 1 kHz, Nominal
3) Ground Capacitance	86 pf/ft @ 1 kHz, Nominal
4) Characteristic Impedance	47 Ω
5) Inductance	0.19 μH/ft, Nominal
6) Conductor DCR	16.6 Ω/1000ft @ 20&deg;C, Nominal
7) Component Shield DCR	19.8 Ω/1000ft @ 20&deg;C, Nominal

## Other

1) Packaging	
a) 1000 FT	
b) 500 FT	

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:6441

6441 , RoHS-Compliant Commencing With8/1/2005Production

*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.***

<b>Substance</b>	<b>Maximum Control Value</b>
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)	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

1/21/2011