2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. 6456

Construction

				Diameter ("in")	
1) Component 1		3 x 1 PAIR			
a) Conductor		22 (7/30) AWG Tinned Copper		0.030	
b) Insulation		0.0225" Wall, Nom. Foam HDPE		0.075	
(1) Color(s)					
Pair	Color	Pair	Color	Pair	Color
1	WHITE/BLUE-BLUE/WHITE	2	WHITE/ORANGE-ORANGE/WHITE	3	WHITE/GREEN-GREEN/WHITE
c) Pair		2/Cond Cabled Together			
(1) Twists		4.8 Twists/ft. (min.)			
2) Cable Assembly		3 Components Cabled			
a) Twists		3.2 Twists/ft. (min.)			
3) Shield		Alum/Mylar Tape, 25% Overlap (min.)			
a) Foil Direction		Foil Facing Out			
b) Drain Wire		22 (7/30) AWG Tinned Copper			
c) Braid		Tinned Copper, 65% Coverage (min.)			
4) Jacket		0.053" Wall, Nom., PVC		0.414	
a) Color(s)		BLACK			
b) Print		ALPHA WIRE P/N 6456 3PR 22 AWG EXXXXX SHIELDED (UL) CM OR PLTC SUN RES OR C(UL) CM --- FT1 CE ROHS * = Factory Code *Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.*			

Applicable Specifications

1) UL	PLTC	60°C
	CM	60°C
	SUN RES	
2) CSA International	CM	60°C
	FT1	
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. Refer to the RoHS Certificate of Compliance for more detail.
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.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 60°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	44 lbs. max.
Electrical Properties	*Engineering purposes only*
1) Voltage Rating	300 V_{RMS}
2) Characteristic Impedance	120 ω +/- 12
3) Mutual Capacitance	11 pf/ft. @1 kHz, Nominal
4) Ground Capacitance	20.9 pf/ft. @1 kHz, Nominal
5) Velocity of Propagation	78%
6) Conductor DCR	15.3 ω/1000ft. @20°C, Nominal
7) OA Shield DCR	2 ω/1000ft. @20°C, Nominal
8) Current	2.7 amps per conductor @30°C (max.)
9) Attenuation (max. dB/100ft.)	0.5 @1 MHz

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 5000 FT	48 x 26 x 18 Continuous Length
b) 1000 FT	24 x 14 x 12 Continuous Length
c) 500 FT	16 x 11 x 8 Continuous Length
d) 100 FT	12 x 10 x 5 Continuous Length
	Spool dimensions may vary slightly.
Notes:	
a) EIA Industrial RS485 cable	
b) 5000 ft. put-up available by special; minimums may apply.	

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 6456

6456, 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	**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:



Dave Watson, Director of Engineering 10/30/2026

Alpha Wire
2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-908-925-8000