



US-9256ALSZH

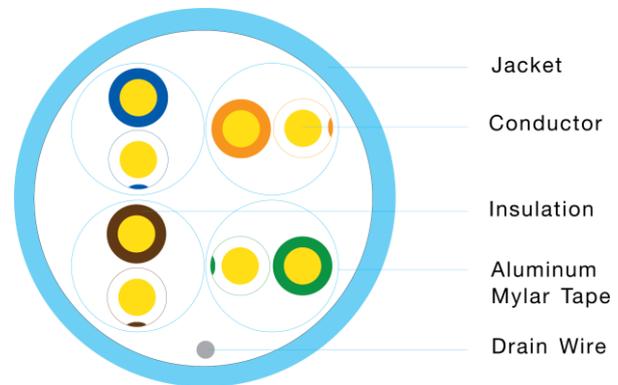


## CAT6A U/FTP SUPER-S SERIES CABLE, 23AWG, LSZH

### Scope of Applications

CAT6A SUPER-S Series (Smart, Small & Save) complies with ISO/IEC 11801 Class EA and ANSI/TIA-568.2-E requirements for Category 6A performance. The cable features individually shielded pairs to reduce alien crosstalk and enhance performance. Its small diameter reduces pathway space, allows for a smaller bending radius, and makes installation easier. The outer jacket is made from a flame-retardant LSZH (Low Smoke Zero Halogen) compound, which reduces the emission of toxic smoke and corrosive gases during combustion—enhancing user safety and improving conditions for firefighting operations. These cables are characterized up to 500 MHz, Powersum NEXT tested, and RoHS certified

### Drawing



### Technical Standards

- ANSI/TIA-568.2-E Category 6A
- ANSI/TIA-568.2-D Category 6A
- ANSI/TIA-568-C.2 Category 6A
- ISO/IEC 11801:2017 class EA
- EN 50173-1 Category 6A
- EN 50288-10-1
- IEC 61156-5, IEC 60332-1
- IEC 60754-1, IEC 60754-2
- IEC 61034-1, IEC 61034-2
- Certify to fire class -s1, d2, a1
- UL 444/NEC 800
- CSA 22.2 No.214
- EC verified performance by FORCE Technology
- RoHS Compliant



## Cable Construction

<b>Conductor</b>	<b>Material</b>	Solid Bare Copper
	<b>No. of Conductor</b>	4 Pairs (8 wires)
	<b>Diameter</b>	23 AWG
<b>Insulation</b>	<b>Material</b>	Foam-Skin PE
	<b>Diameter</b>	1.28 ±0.05 mm
<b>Ripcord</b>		Under Jacket
<b>Color code with Strip color</b>	<b>Pair 1</b>	White-Blue / Blue
	<b>Pair 2</b>	White-Orange / Orange
	<b>Pair 3</b>	White-Green / Green
	<b>Pair 4</b>	White-Brow / Brown
<b>Drain wire</b>	<b>Material</b>	Stranded Tinned Copper
	<b>Diameter</b>	24 AWG
<b>Individual Shield</b>	<b>Material</b>	Al-Mylar Tape
<b>Jacket</b>	<b>Material</b>	Lead free, FR-LSZH
	<b>Thickness</b>	0.50 ±0.05 mm
	<b>Color</b>	Aqua Blue
<b>Cable Diameter</b>		6.80 ±0.2 mm
<b>Marking</b>		Black color in every 2 ft
<b>Flame Rating</b>		LSZH (Low Smoke Zero Halogen)

## Electrical Characteristic

<b>Impedance</b>	100 ± 15 Ohms, 1 MHz to 500 MHz
<b>Mutual Capacitance</b>	≤5.6 nF Max / 100m
<b>Capacitance, Unbalance</b>	≤160 pF Max / 100m
<b>DC Resistance</b>	≤9.38 Ohms Max./100m
<b>DC Resistance, Unbalance</b>	4% Max.
<b>Dielectric Strength</b>	≤1 kV/min
<b>Insulated Resistance</b>	≥5000 MΩ/km
<b>AC leakage current through overall jacket</b>	10mA (1.5 kV AC)
<b>Spark Test</b>	2.5 kV
<b>Propagation Delay</b>	≤536 ns/100m Max @500MHz
<b>Delay Skew</b>	≤45 ns Max
<b>NVP</b>	78%

## Physical Properties

<b>Tensile Strength</b>	110 N (25 lbf)	
<b>Ultimate Breaking Strength</b>	>400 N (90lbf)	
<b>Min. Bending Radius</b>	8 X Cable Diameter	
<b>Temperature</b>	<b>Installation/Operation</b>	-20°C to 75°C
	<b>Storage</b>	-20°C to 80°C



## PERFORMANCE CHARACTERISTIC (meet or exceed ANSI/TIA-568.2-E Category 6A)

Frequency (MHz)	Insertion Loss (dB/100m)	NEXT (dB)		ACRF (dB)		PS. NEXT (dB)		PS. ACRF (dB)		PS. ANEXT (dB)		PS. AACRF (dB)		R.L. (dB)	
		min	nom	min	nom	min	nom	min	nom	min	nom	min	nom	min	nom
0.772	1.8	79.0	82	77.2	80.2	77.0	79.0	72.2	74.2	68.1	70.1	67.8	69.8	-	-
1	2.0	78.3	81.3	71.8	79.3	76.0	78.0	68.8	70.8	67.0	67.0	67.0	69.0	20.0	28.0
4	3.7	69.3	72.3	59.8	62.8	67.3	69.3	56.8	58.8	67.0	67.0	66.1	68.1	23.0	31.0
8	5.2	65.4	68.4	55.2	58.2	63.4	65.4	47.1	49.1	67.0	67.0	64.0	64.0	24.5	32.5
10	6.0	63.3	66.3	51.8	61.1	61.3	63.3	48.8	50.8	67.0	67.0	60.7	64.7	25.0	33.0
16	7.4	60.0	63.0	48.7	51.7	58.9	60.9	45.3	47.3	67.0	67.0	58.6	60.6	25.0	33.0
20	8.3	58.8	61.8	45.8	48.8	56.8	58.8	42.8	44.8	67.0	67.0	54.6	56.6	25.0	33.0
25	9.2	57.5	60.5	42.3	45.3	56.8	58.8	41.2	43.2	67.0	67.0	51.2	51.2	24.3	32.3
31.25	10.4	55.9	59.0	41.9	44.9	53.9	55.9	38.9	40.9	67.0	67.0	48.3	50.3	23.6	31.6
62.5	14.9	51.4	54.4	35.9	38.9	49.4	51.4	32.9	34.9	65.0	67.0	42.3	44.3	21.5	29.5
100	19.0	48.3	51.5	31.8	34.8	46.3	48.3	28.8	30.8	62.5	64.5	38.2	40.2	20.1	28.1
155	24.2	45.0	48.0	27.2	30.2	44.5	46.5	23.9	25.9	61.7	63.7	36.4	38.4	18.8	26.8
200	27.5	43.8	47.4	24.6	29.6	41.8	43.8	22.8	24.8	58.0	60.0	32.2	34.2	18.0	26.0
250	31.0	42.3	45.3	23.8	26.8	40.3	42.3	20.8	22.8	56.5	58.5	30.2	32.2	17.3	25.3
300	34.2	41.1	44.1	22.3	25.3	39.3	41.3	19.3	21.3	55.3	57.3	28.7	30.7	16.8	24.8
350	38.3	39.5	42.5	21.5	24.5	38.5	40.5	17.6	19.6	54.5	56.5	27.9	29.9	16.3	24.3
400	40.1	38.5	41.5	19.8	21.8	37.5	39.5	16.2	18.2	53.2	55.2	26.4	28.4	15.9	23.9
450	42.6	38.0	41.0	18.4	21.4	36.5	38.5	15.1	17.1	52.8	54.8	25.1	27.1	15.5	23.5
500	45.3	37.8	40.8	17.8	20.8	35.8	37.8	14.8	16.8	52.0	54.0	24.2	26.2	15.2	23.2

## Applications

- Structure cabling for building backbone
- Structure cabling for horizontal
- 2.5G/5G BASE-T (IEEE 802.3bz)
- 10G BASE-T (IEEE 802.3an 10Gigabit Ethernet)
- 1000 BASE-T (IEEE 802.3ab Gigabit Ethernet)
- 1000 BASE-TX (TIA/EIA-854)
- 100 BASE-TX (IEEE 802.3u Fast Ethernet)
- 10 BASE-T (IEEE 802.3i Ethernet)
- 52/155/622Mbps and 1.2Gbps ATM
- 4/16 Mbps Token Ring
- IEEE 802.3af (PoE), IEEE 802.3at (PoE+), IEEE 802.3bt (Type4)
- TP-PMD, TPDDI, ISDN, CDDI, VoIP
- EtherCAT Industrial standard, HDBaseT 2.0 standard
- Baseband, Broadband
- Digital and analog for data, video and audio application



## Order Information

Part number	Description	Color	Length	Package
US-9256ALSZH	CAT6A U/FTP SUPER-S SERIES CABLE, 23AWG, LSZH	Aqua Blue	305 m	Pull in Box

\*Other jacket color available on request

Specifications subject to change without notice.

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US-9256ALSZH-V1.2-040326