Cat6A LSZH UTP Bulk Cable — No Rip Cord

Premium quality cable for future-proof 10G networking.

- **Meets Category 6A standards.**
- **Ideal for carrying data, audio, video, and for use in 10 / 100 Mbps, and 1 / 10 Gbps networks.**
- **Solid Copper Conductors.**
- **23 AWG.**

Our Low Smoke Zero Halogen cable is ideal for public areas, transport systems, factories, and any other areas where the protection of people and equipment from toxic and corrosive gases is essential. The zero halogen jacket has excellent fire and safety characteristics, giving off less smoke and emitting very low gases. This high quality solid core bulk cable is ideal for Ethernet, Fast Ethernet, Gigabit Ethernet, 10G Ethernet, Power over Ethernet (PoE) and other demanding structured cabling applications.

This cable is 3rd party tested and complies with a wide range of electrical and safety standards including ISO/IEC11801, CENELEC EN50173-1:2011, and ANSI/TIA-568-C2 making it appropriate for almost every indoor application.

This cable comfortably exceeds the Cat6A requirements for insertion loss, crosstalk, alien crosstalk and return loss. Details are published on the following pages.

The cable is compatible with the range of unshielded jacks, wallplates, patch cables, and patch panels.

FM10G20-R2 Jack

JPM10G24 Patch Panel

Technical Specification

Environmental: RoHS2 Compliant
CE: LVD (2006/95/EC) , RoHS2(2011/65/EC)
Construction: 23 AWG Solid Bare Copper Twisted-Pair Conductors
                    Polyethylene Insulation, PE X-Filler
                    LSZH Jacket

Applicable Standards:

Electrical:

      ISO/IEC 61156-5
      CENELEC EN 50173-1:2011

Safety:

      CENELEC EN 60332-1-2 / IEC 60332-1-2
      CENELEC EN 50268-2 / IEC 61034-2
      CENELEC EN 50267-2-3 / IEC 60754-2

Materials/Construction :

      CENELEC EN 60811-1-1 / IEC 60811-1-1
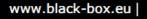   CENELEC EN 60811-1-2 / IEC 60811-1-2

Black Box Explains

LSZH (Low Smoke Zero Halogen)

The European market is demanding that cables used in LANs, WANs, etc. meet this specification.

IEC60332-1 governs the Flame Retardant Grade specifications in reference to LSZH cables. Essentially, the compound used in manufacturing cables

Meeting the above specification reduces the amount of dangerous/poisonous gases in case of fire. The main difference in specifications between IEC60332-1 versus UL 1581, UL 1666 and UL 910 is that the cable under the IEC spec can continue to burn while still emitting very low gases. The UL specs demand that the flame be extinguished, but it can still emit dangerous/poisonous gases.

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Physical

Conductors:	Material	23AWG Solid Bare Copper
	Diameter	0.550±0.02 mm
Insulation:	Material	HDPE
	Diameter	Blue and Green pair: 1.17±0.02mm
		Orange Pair: 1.08±0.02mm
		Brown Pair: 1.08±0.02mm
Shielding:	Filler:	PE Filler (0.7 x 5.6mm ±0.2mm)
Jacket:	Material	LSZH
	Diameter	8.3±0.2mm
	Colour	Purple
Packaging:	Wooden Spool	
Temperature:	Installation	-20℃ up to +60℃
	Operation	0℃ up to +60℃
Min Bend Radius:	Installation	8 x overall diameter
	Operation	6 x overall diameter
Max Pulling Tension:	90 N	
Flame Retardance:	IEC 60332-1-2	

Electrical Characteristics at 20°C

Maximum Conductor DC Resistance:	9.38 Ohm/100m
Pair to Ground Capacitance:	1600 pF/km Max
Maximum Propagation Delay:	650 MHz 535.5 ns/100m
Maximum Delay Skew:	1 ~ 600 MHz 45
Max. Operating Voltage:	nS/100m 300 V rms

Electrical Performance

Frequency (MHz)	IL MAX. dB/100m	NEXT MIN. dB	PROP. DELAY MAX dB/100m	PS. NEXT MIN. dB	PS. ANEXT MIN. dB/100m	ACRF MIN. dB/100m	PS. ACRF MIN. dB/100m	PS AACRF MIN. dB/100m	R.L. MIN. (dB)
1	2.1	75.3	570.0	73.3	67.0	67.8	64.8	67.0	18.0
4	3.8	66.3	552.0	64.3	67.0	55.8	52.8	66.2	22.2
8	5.3	61.8	546.7	59.8	67.0	49.7	46.7	60.1	24.3
10	5.9	60.3	545.4	58.3	67.0	47.8	44.8	58.2	25.0
16	7.5	57.2	543.0	55.2	67.0	43.7	40.7	54.1	25.0
20	8.4	55.8	542.0	53.8	67.0	41.8	38.8	52.2	25.0
25	9.4	54.3	541.2	52.3	67.0	39.8	36.8	50.2	24.3
31.25	10.5	52.9	540.4	50.9	67.0	37.9	34.9	48.3	23.6
62.5	15.0	48.4	538.6	46.4	65.6	31.9	28.9	42.3	21.5
100	19.1	45.3	537.6	43.3	62.5	27.8	24.8	38.2	20.1
155	24.1	42.4	536.9	40.4	59.6	24.0	21.0	34.4	18.8
200	27.6	40.8	536.5	38.8	58.0	21.8	18.8	32.2	18.0
250	31.1	39.3	536.3	37.3	56.5	19.8	16.8	30.2	17.3
300	34.3	38.1	536.1	36.1	55.3	18.3	15.3	28.7	16.8
350	37.2	37.1	535.9	35.1	54.3	16.9	13.9	27.3	16.3
400	40.1	36.3	535.8	34.3	53.5	15.8	12.8	26.2	15.9
500	45.3	34.8	535.6	32.8	52.0	13.8	10.8	24.2	15.5
550	47.7	34.2	-	32.2	-	-	-	-	15.2
600	50.1	33.6	-	31.6	-	-	-	-	14.9

Item	Code
Cat6A LSZH Cable U/UTP Bulk Solid Conductor 305m spool	
Purple	EYNLS6A48AW-PB-1000