

INTRODUCTION

Low smoke zero halogen or low smoke free of halogen (LSZH or LSOH or LSOH or LSFH or OHLS) is a material classification typically used for cable jacketing in the wire and cable industry. LSZH cable jacketing is composed of thermoplastic or thermoset compounds that emit limited smoke and no halogen when exposed to high sources of heat.

Most network cables are insulated with polyethylene, PVC or thermoplastic polyurethane. In a fire, a chlorine-containing plastic material releases hydrogen chloride, a poisonous gas that forms hydrochloric acid when it comes in contact with water. Designated halogen-free cables, on the other hand, do not produce a dangerous gas/acid combination when exposed to flame. However, gases produced by all burning materials—whether LSZH or not—are extremely toxic.

Low smoke zero halogen cable reduces the amount of toxic and corrosive gas emitted during combustion. This type of material is typically used in poorly ventilated areas such as aircraft, rail cars or ships. It is also used extensively in the railroad industry, wherever high voltage or track signal wires must be run into and through underground tunnel systems. This reduces the chance of toxic gasses accumulating in these areas should the wires be damaged by fire or a short circuit fault.

Low smoke zero halogen is becoming very popular and, in some cases, a requirement where the protection of people and equipment from toxic and corrosive gas is critical like in the railway industry and shipbuilding industry.

STRUCTURE

- 23Awg solid bare copper conductor
- PE insulation
- 4pair, FR PVC/LSZH jacket
- Rosh complaint
- Frequency:250Mhz
- Transmission: 155Mbps

INDUSTRIAL STANDARD

- International ISO/IEC 1180 USA ANSI/ ANATEL
- TIA/EIA-568b.2-2001
- UI CE approved

APPLICATIONS

- ISDN
- 10Base-T(IEEE-802.3)
- 100Base-T(IEEE-802.3u)
- ATM 155Mbps
- 100Vg-anylan(IEEE-802.12)
- Token ring(IEEE-802.5)
- TP-PDM(ANSI x3t9.5)

PRODUCT PERFORMANCE

- Linear resistance: Max.186.5 ω /km
- Mutual capacity(Nom.):Max.5200pf/100m
- Unbalance capacity max (p/p at 1 kHz):1500pf/1km
- Characteristic impedance: 100 \pm 15 ω
- Velocity of propagation (f>1mhz):72% of c

ELECTRICAL PERFORMANCE

Frequency (MHz)	Return Loss (dB)	Attenuation (dB/100m)	NEXT (dB)	PS NEXT (dB)	ELFEXT (dB)	PS ELFEXT (DB)
1	20.0	2.00	74.3	72.3	67.8	64.8
4	23.0	3.80	65.3	63.3	55.8	52.8
10	25.0	5.30	59.3	57.3	47.8	44.8
20	25.0	8.50	47.2	44.2	39.7	36.7
62.5	21.5	15.40	47.4	45.4	42.0	29.1
100	20.1	19.80	44.3	42.3	27.8	25.0
150	18.9	24.70	41.7	39.7	24.3	21.3
200	18.0	29.00	39.8	37.8	21.8	19.0
250	17.3	32.80	38.3	36.3	20.4	17.0