

LT-LEAKY-1/2L-LSZH

Leaky1/2" Coaxial Cable

The LT-LEAKY-1/2L-LSZH is a high-performance leaky coaxial cable designed to provide reliable RF signal distribution in areas where conventional antenna systems are ineffective. Engineered with a low-smoke, zero-halogen (LSZH) jacket, this cable is ideal for environments that demand strict fire safety standards such as tunnels, underground facilities, buildings, and confined spaces. Its leaky (radiating) design enables consistent wireless coverage across the cable's length, making it a dependable solution for in-building DAS (Distributed Antenna Systems), public safety communication, and transportation systems.



Key Features

- 50 Ω impedance with consistent performance
- Low attenuation across frequency ranges
- High shielding effectiveness (>120 dB)
- LSZH jacket for fire safety and low toxicity
- Operating temperature range: -55 °C to +85 °C
- Strong tensile strength (1000 N)
- Reliable signal leakage characteristics for controlled coverage
- Supports high power handling up to 91 kW peak power

Construction Materials

- Inner Conductor : Copper-clad Aluminium Wire
- Dielectric : Physical Foam Polyethylene
- Outer Conductor : Helical Copper Tube
- Jacket : Low Smoke Halogen-free retardant

Physical Dimensions

- Inner Conductor Diameter : 4.80 mm
- Dielectric Diameter : 12.30 mm
- Outer Conductor Diameter : 13.80 mm
- Diameter over Jacket : 15.70 mm

Electrical Specifications

- Capacitance: 75.0 pF/m
- Impedance: 50 \pm 1 Ω
- Velocity: 90 %
- RF Peak Voltage: 4.3 kV
- Peak Power Rating: 205 kW
- Cut-off Frequency: 3.8 GHz
- Shielding Effectiveness >10MHz: >120 dB
- Insulation Resistance: 5000 M Ω ·km

Environmental Specifications

- Storage Temperature: -55 °C ~ +85 °C
- Installation Temperature: -40 °C ~ +60 °C
- Operating Temperature: -55 °C ~ +85 °C

VSWR

- 0.8 ~ 1.0 GHz \leq 1.30
- 1.7 ~ 2.2 GHz \leq 1.30
- 2.2 ~ 2.7 GHz \leq 1.30

Mechanical Specifications

- Minimum Bending Radius (single): 120 mm
- Minimum Bending Radius (repeated): 300 mm
- Minimum Number of Bends: 15
- Tensile Strength: 2000 N



LT-LEAKY-1/2L-LSZH

Leaky 1/2" Coaxial Cable

Specifications

Mechanical Specifications			Electrical Specifications	
Minimum Bending Radius (Single Bending)	50 mm		Capacitance	76.0 pF/m
Minimum Bending Radius (Repeated Bending)	250 mm		Impedance	50 ± 2 Ω
Minimum Number of Bends	15		Velocity	88%
Tensile Strength	1000 N		RF Peak Voltage	3.00 kV
VSWR			Peak Power Rating	91 kW
0.8 ~ 1.0 GHz	≤ 1.30		Cut-off Frequency	5.20 GHz
1.7 ~ 2.2 GHz	≤ 1.30		Shielding Effectiveness (>10 MHz)	>120 dB
2.2 ~ 2.7 GHz	≤ 1.30		Insulation Resistance	5000 mΩ • km
Environmental Specifications			Construction Materials	
Storage Temperature	-55 °C ~ +85 °C		Inner Conductor	Copper-clad Aluminum Wire
Installation Temperature	-40 °C ~ +60 °C		Dielectric	Physical Foam Polyethylene
Operating Temperature	-55 °C ~ +85 °C		Outer Conductor	Helical Copper Tube
Coupling Loss			Jacket	Low Smoke Halogen-free retardant
50% (dB)	77		Physical Dimensions	
95% (dB)	80 - 87		Inner Conductor Diameter	4.80 mm
			Dielectric Diameter	12.30 mm
			Outer Conductor Diameter	13.80 mm
			Diameter over Jacket	15.70 mm

Performance Overview

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
75	2.20	0.67
150	3.30	1.01
450	6.00	1.83
800	8.10	2.47
900	8.70	2.65
1800	13.20	4.02
2200	15.50	4.72
2400	16.10	4.91

Note:

For attenuation: VSWR 1.0, cable temperature 20°C (68°F)
For average power: VSWR 1.0, ambient temperature 40°C (104°F),
Inner conductor temperature 100°C (212°F) no solar loading,
Maximum attenuation value shall be 105% off the nominal attenuation value.

