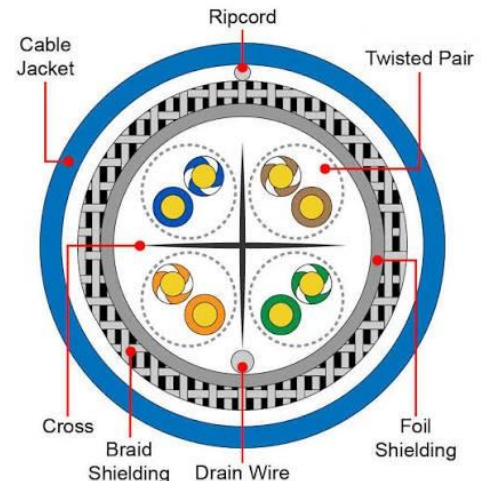


Overview

The **Solitine Category-6 S/FTP (Shielded/Foiled Twisted Pair)** is a premium, high-performance copper networking cable engineered for environments demanding maximum signal integrity and public safety. Featuring premium 23AWG solid bare copper conductors, the 4 twisted pairs are kept uniform by a central cross spline and protected together by a robust, dual-layer shield. This overall shielding system consists of an Aluminum/Polyester foil wrap combined with a Tinned Copper braid, providing excellent defense against Electromagnetic Interference (EMI), Radio Frequency Interference (RFI), and alien crosstalk. Wrapped in a flame-retardant **LSZH** (Low Smoke Zero Halogen) outer jacket, this cable drastically reduces toxic/corrosive gas emissions and heavy smoke in the event of a fire, making it the ideal standard for high-density commercial, institutional, and poorly ventilated industrial architectures.



Key Features

- **Solid Pure Copper Core:** Features four pairs of premium **23AWG solid bare copper conductors** for minimal signal attenuation and long-term durability.
- **Dual-Layer Overall Shielding:**
 - Layer 1: 100% coverage overall Aluminum/Polyester foil shield to block high-frequency interference.
 - Layer 2: Overall Tinned Copper Braid shield to mitigate low-frequency noise and provide mechanical strength.
- **Life Safety Sheathing:** Built with an advanced **LSZH** compound jacket that is completely halogen-free, emitting minimal non-toxic smoke under high heat.
- **Twisted Pairs with Spline:** Pairs are kept clean and structurally sound using an internal PE cross separator to eliminate internal pair-to-pair crosstalk.
- **Integrated Grounding:** Includes a tinned copper drain wire for quick, efficient shield grounding.
- **High-Frequency Bandwidth:** Certified and rigorously tested up to **250 MHz** bandwidth to comfortably handle high-speed data structures.
- **Environmental Reliability:** 100% RoHS compliant, restricting heavy metals and dangerous chemical mixtures.

Application

Designed for high-density voice, data, security, and multimedia applications in environments prone to external electrical noise:

- 1000BASE-T (Gigabit Ethernet) & **10GBASE-T** (10GbE supported over limited channel lengths)
- 100BASE-TX Fast Ethernet

- ATM 155 Mbps / 622 Mbps, Token Ring, ISDN, and high-definition IP video/audio streaming
- Power over Ethernet capabilities (PoE / PoE+ / PoE++ (IEEE 802.3af/at/bt))
- Ideal for commercial buildings, data centers, hospitals, and industrial automation networks close to power lines or heavy machinery.

Compliant Standards

Designed and certified in strict compliance with globally recognized standard thresholds, specifically supporting standard EIA/TIA termination codes:

- **American/National Standards:** ANSI/TIA-568.2-D (evolved from the legacy EIA/TIA-568 standards) for Category 6 component compliance.
- **Wiring Color Code Standards:** Fully compatible with both T568A and T568B EIA pinout configurations.
- **International:** ISO/IEC 11801, IEC 61156-5
- **Flame & Smoke Safety:** IEC 60332-1 (Flame Retardancy), IEC 60754-1 & 2 (Halogen Acid Gas Emission), IEC 61034-2 (Smoke Density)
- **Certifications:** CE Approved, UL Listed, RoHS Compliant

Transmission Performance

(Electrical parameters evaluated per 100 meters at a baseline temperature of 20°C)

Frequency (MHz)	Max. Insertion Loss (dB/100m)	Min. NEXT (dB)	Min. PS-NEXT (dB)	Min. Return Loss (dB)
1.0	2.0	74.3	72.3	20.0
4.0	3.8	65.3	63.3	23.0
10.0	6.0	59.3	57.3	25.0
20.0	8.5	54.8	52.8	25.0
31.25	10.7	51.9	49.9	23.6
62.5	15.4	47.4	45.4	21.5
100.0	19.8	44.3	42.3	20.1
200.0	29.0	39.8	37.8	18.0
250.0	32.8	38.3	36.3	17.3

Ordering Information

Part Number	Description	Jacket Type	Standard Length
SOL6357-V-SF	Solitine S/FTP 4-Pair Cat-6 Solid Copper LSZH LAN Cable 23AWG	LSZH (Violet)	305m (1000 ft) Roller
SOL6357-OR-SF	Solitine S/FTP 4-Pair Cat-6 Solid Copper LSZH LAN Cable 23AWG	LSZH (Orange)	305m (1000 ft) Roller

Note: Custom jacket colors (Blue, Yellow, Green, Black) and bulk wooden reel options are available upon wholesale request. Contact your Solitine distribution partner for localized lead times.