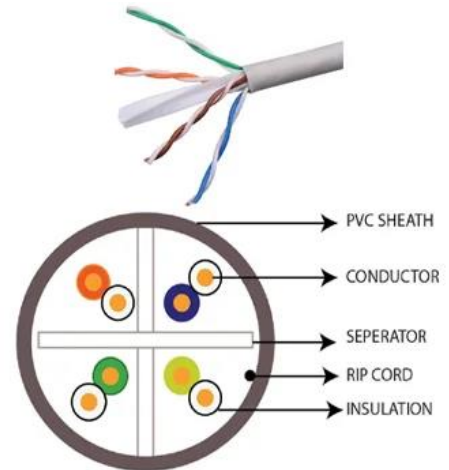


Solitine Category-6 U/UTP 4-Pair Solid Networking Cable | TECHNICAL DATASHEET

Overview

The **Solitine UTP Cat6 Solid Network Cable** is an enterprise-grade structured cabling solution engineered for high-density local area networks (LANs). Utilizing 100% solid bare copper conductors, this family of cables balances premium physical engineering with strict compliance to global standards. It is designed to provide high-performance, low-latency data transmission, making it highly reliable for commercial, industrial, and residential deployments requiring robust backbone infrastructure.



Key Features

- **Pure Solid Copper:** Constructed using 100% solid bare copper conductors to provide maximum electrical conductivity, minimal signal attenuation, and superior tensile strength over long runs.
- **Internal Crosstalk Prevention:** Features an integrated **PE central cross separator (spline)** that mechanically isolates the four twisted pairs, drastically lowering Near-End Crosstalk (NEXT) and maintaining pair geometry.
- **Flexible Conductor Gauges:** Available in heavy-duty **23 AWG** for maximum performance and distance overhead, as well as **24 AWG** for balanced cost-to-performance efficiency.
- **Safety Jacket Profiles:** Available in Flame Retardant PVC (FR-PVC) for standard building applications or Low Smoke Zero Halogen (**LSZH**) for environments with strict emission and fire safety regulations.
- **Installer-Friendly Packaging:** Distributed in a reef-less, easy-pull box equipped with an internal **rip cord** for fast, clean jacket stripping without risking conductor damage.

Application

This cable series is universally compatible with standard 110/Krone punch-down blocks, patch panels, and RJ45 modular jacks, fully supporting:

- 1000Base-T (Gigabit Ethernet) and legacy 10Base-T / 100Base-TX protocols.
- Power over Ethernet applications (**PoE, PoE+, and PoE++ Type 3**).
- High-definition digital video streaming, VoIP architectures, and broadband cloud server links.
- ATM 155 Mbps and token ring network topologies.

Compliant Standards

Solitine cables are manufactured under stringent quality control baselines to meet or exceed international telemetry regulations:

- **ANSI/TIA/EIA-568-C.2 & ANSI/TIA/EIA-568.2-D** (Balanced Twisted-Pair Telecommunications Cabling Standards)
- **ISO/IEC 11801 Class E / IEC 61156-5** (Multi-core and symmetrical pair/quad cables for digital communications)
- **CE & UL** Certified
- **RoHS Compliant** (Environmentally certified free from hazardous substances like lead, mercury, and cadmium)

Transmission Performance

Parameter	23 AWG Specification	24 AWG Specification
Conductor Material	Solid Bare Copper	Solid Bare Copper
Insulation Material	High-Density Polyethylene (HD-PE)	High-Density Polyethylene (HD-PE)
Tested Frequency Range	250 MHz – 500 MHz	250 MHz
Data Transmission Rate	1 Gbps up to 100m (Supports 10 Gbps up to 55m)	1 Gbps up to 100m (Supports 10 Gbps up to 37m)
Characteristic Impedance	100 ± 15 Ω	100 ± 15 Ω
Nominal Velocity of Propagation (NVP)	~72%	~69%
Maximum DC Linear Resistance	186.5 Ω/km	93.8 Ω/km
Maximum Nominal Mutual Capacitance	5200 pF/100m	5600 pF/100m

Ordering Information

Part Number	Description	Jacket Type	Standard Length
SOL6157-GR-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 23AWG	FR-PVC (Grey)	305m (1000 ft) Pull Box
SOL6157-BL-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 23AWG	FR-PVC (Blue)	305m (1000 ft) Pull Box
SOL6157-OR-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 23AWG	FR-PVC (Orange)	305m (1000 ft) Pull Box
SOL6157-OR-LS	Solitine U/UTP 4-Pair Cat-6 Solid Copper LSZH LAN Cable 23AWG	LSZH (Orange)	305m (1000 ft) Roller
SOL6156-GR-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 24AWG	FR-PVC (Grey)	305m (1000 ft) Pull Box
SOL6156-BL-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 24AWG	FR-PVC (Blue)	305m (1000 ft) Pull Box
SOL6156-OR-U	Solitine U/UTP 4-Pair Cat-6 Solid Copper PVC LAN Cable 24AWG	FR-PVC (Orange)	305m (1000 ft) Pull Box

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.