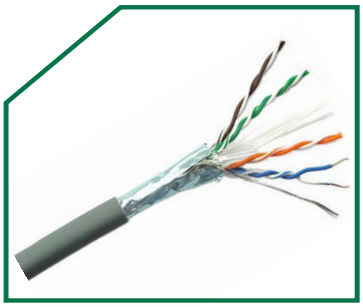
Planet
Structure Cabling Systems

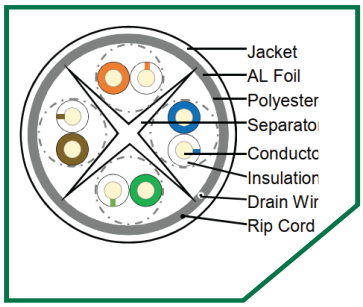
Category : 6 / F/UTP Cable

Network Cable

Part Number:

LSZH : PL-CA6FTL
PVC : PL-CA6FTP





Category 6 F/UTP horizontal cable with 100 Ω nominal impedance. Four twisted pairs, a PE cross separator, one overall foil screen with drain wire and 23 AWG solid bare copper conductors provide EMI protection. Standard jacket: PVC; optional jacket: LSZH.

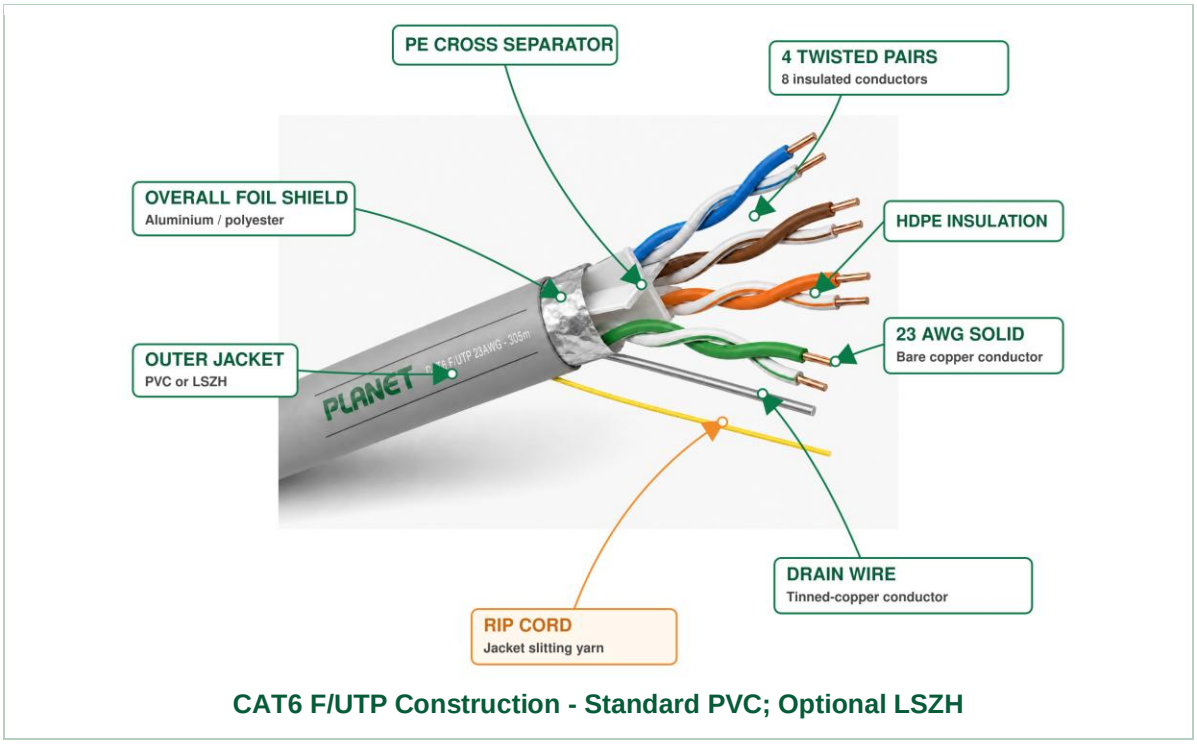
305 m Standard Put-up	**23 AWG** Solid Bare Copper	**250 MHz** Category 6	**PoE Types 1-4** Subject to limits

"Engineered for Performance. Built for Reliability."

1. Product Overview

Specified for Category 6 transmission up to 250 MHz and Gigabit Ethernet applications. The cable supports Class E structured cabling channels up to 100 m, consisting of up to 90 m permanent link cabling plus patch and equipment cords, subject to applicable installation standards.

Use shielded connecting hardware and continuous bonding. IEEE 802.3af/at/bt PoE Types 1-4 support is subject to installed-channel, bundle, ambient-temperature and pathway-fill limits.



CAT6 F/UTP Construction - Standard PVC; Optional LSZH

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2. Construction

Parameter	Specification
Cable Design	F/UTP: 4 unshielded pairs + one overall foil screen; PE cross separator
Conductor	23 AWG solid bare copper (0.570 ± 0.005 mm)
Insulation	High-density polyethylene (HDPE)
Pair Core	4 standard color-coded pairs around a PE cross separator
Shielding System	One overall Al/PET foil screen, nominal 100% coverage
Individual Pair Shield	Unshielded pairs
Overall Shielding	One overall aluminum/polyester (Al/PET) foil screen, nominal 100% coverage.
Rip Cord	High-strength nylon or polyester jacket-slitting yarn
Drain Wire	Optional tinned-copper drain wire
Outer Jacket	Standard PVC: PL-CA6FTP; Optional LSZH: PL-CA6FTL
Nominal Cable Diameter	7.2 ± 0.4 mm
Jacket Color	Standard: grey; Optional: red or black

3. Electrical Characteristics

Parameter	Specification
Frequency Range	1-250 MHz
Characteristic Impedance	100 ± 15 Ω over 1-250 MHz
Maximum DC Resistance	≤ 9.38 Ω/100 m at 20°C
Maximum DC Loop Resistance	≤ 18.76 Ω/100 m at 20°C
Maximum DC Resistance Unbalance	≤ 5% within a pair at 20°C; installed PoE channel verification recommended
Maximum Mutual Capacitance	≤ 5.6 nF/100 m at 1 kHz
Maximum Capacitance Unbalance	≤ 330 pF/100 m, pair-to-ground at 1 kHz
Maximum Propagation Delay	≤ 538 ns/100 m
Maximum Delay Skew	≤ 45 ns/100 m
Typical Velocity of Propagation (NVP)	68% typical; informational and dependent on the test method
Structured Cabling Design Limit	Maximum 100 m channel with up to 90 m permanent link
Remote Powering	IEEE 802.3af/at/bt PoE Types 1-4, subject to channel and thermal limits

PoE installation note: High-power PoE performance depends on conductor temperature, cable bundle size, ambient temperature, pathway fill and installation method. Applicable installation guidelines shall be followed.

Part Number: **LSZH** : PL-CA6FTL **PVC** : PL-CA6FTP

4. Mechanical and Environmental Characteristics

Parameter	Specification
Minimum Bend Radius	Minimum 8 × cable O.D. during installation; 4 × after installation
Maximum Pulling Tension	≤ 110 N
Operating Temperature	-20°C to +60°C
Installation Temperature	0°C to +50°C
Installation Environment	Indoor horizontal structured cabling
Jacket Construction	Standard PVC; Optional LSZH. Fire and smoke claims require verification for the ordered jacket

5. Packaging and Identification

Parameter	Specification
Standard Put-up Length	305 m (1000 ft)
Standard Packaging	Reel-in-box / easy-pull box
Length Marking	Sequential meter marking on outer jacket
Cable Identification	Brand, category, cable type, jacket type and length marking
Length Tolerance	According to confirmed manufacturing specification and order

APPLICATIONS & STANDARDS **CAT6 F/UTP | 305 m**

6. Applications

- 10BASE-T, 100BASE-TX and 1000BASE-T Gigabit Ethernet
- Shielded structured cabling for commercial buildings and enterprise networks
- Data centers, control rooms and environments with elevated electromagnetic interference
- IP CCTV, VoIP, wireless access points and IEEE 802.3af/at/bt PoE devices, subject to installed-channel and thermal limits
- Data, voice and digital video transmission within standards-defined distances

Part Number: **LSZH** : PL-CA6FTL **PVC** : PL-CA6FTP

7. Standards and Regulatory References

Reference	Applicability
ANSI/TIA-568.2-E	Baseline Category 6 balanced twisted-pair cable requirements
ISO/IEC 11801-1	Baseline support for Class E generic cabling
IEC 61156-5:2020	Optional cable-standard verification by the applicable laboratory method
EN 50288-5-1	Baseline screened horizontal cable reference up to 250 MHz
IEEE 802.3af/at/bt	Application support subject to installed-channel and thermal limits
IEC 60332-1-2	Optional flame-test verification for the ordered jacket; no base flame-class claim
IEC 60754-1/-2 / IEC 61034-2	Optional halogen-acid gas and smoke-density verification for the LSZH model only
RoHS	EU 2011/65/EU and amendment 2015/863/EU, subject to a supporting declaration for the ordered model

Optional certification: ETL/UL verification is available only where a valid listing/file covers the ordered model.

8. Warranty

25-Year System Warranty	**Subject to proper installation and certified components usage.**