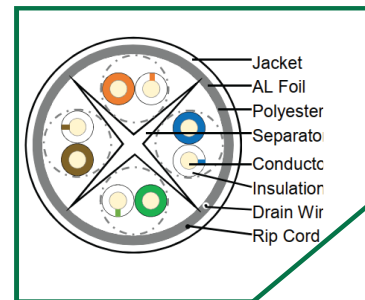
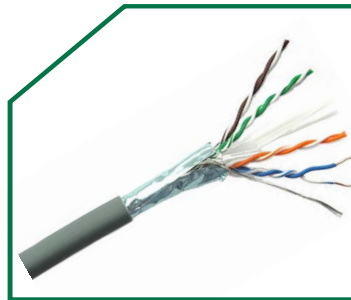


Part Number:

LSZH : PL-CA6AFTL

PVC : PL-CA6AFTP



Category 6A F/UTP horizontal cable with 100 Ω nominal impedance, 23 AWG solid bare-copper conductors, HDPE insulation, a central cross separator, one overall aluminium/polyester foil screen, a tinned-copper drain wire and a standard PVC jacket.

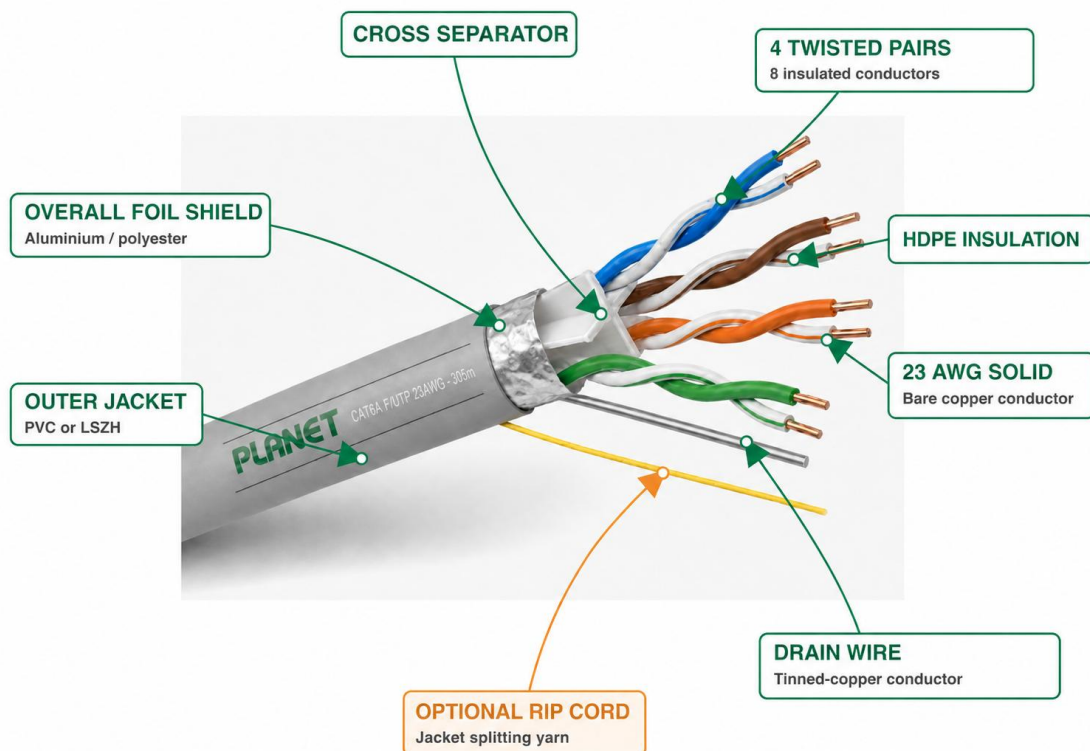
Unless explicitly marked Optional, the values below define the standard PVC model. Optional items require written order confirmation and supporting evidence where applicable.

F/UTP Overall Foil Shield	23 AWG 0.570 mm Copper	500 MHz Category 6A	10GBASE-T CAT6A Application
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"Engineered for Performance. Built for Reliability."

1. Product Overview

The standard PL-CA6AFTP model is a 500 MHz PVC-jacketed F/UTP cable intended for 10GBASE-T over a standards-compliant installed channel. Use shielded connecting hardware and continuous bonding in accordance with the applicable installation standard.



Part Number: LSZH : PL-CA6AFTL PVC : PL-CA6AFTP

2. Construction

Parameter	Specification
Conductor	23 AWG solid bare copper; 0.570 ± 0.005 mm
Cable Design	F/UTP: 4 unshielded twisted pairs (8 conductors) with one overall foil screen
Insulation	HDPE; nominal O.D. 1.17 ± 0.10 mm; average thickness 0.30 mm
Pair Colours	White/Blue-Blue; White/Green-Green; White/Orange-Orange; White/Brown-Brown
Central Element	Cross separator; material not declared in the base specification
Shielding System	Polyester inner wrap plus one overall aluminium/polyester foil screen; no braid
Drain Wire	Tinned copper; $1/0.40 \pm 0.01$ mm
Outer Jacket	Standard PVC, 0.55 ± 0.05 mm; optional LSZH uses separate model PL-CA6AFTL
Overall Diameter	7.60 ± 0.40 mm
Jacket Colour / Printing	Grey RAL 7035; black marking

3. Electrical Characteristics - Standard PVC Model

Parameter	Specification
Frequency Range	1-500 MHz
Characteristic Impedance	100 Ω nominal
DC Resistance, Single Conductor	$\leq 9.0 \Omega/100$ m at 20°C
DC Resistance Unbalance	Within pair: $\leq 2\%$; between pairs: $\leq 4\%$
Insulation Resistance	≥ 5000 M Ω ·km at 20°C, DC 100-500 V
Wire-to-Ground Capacitance Unbalance	≤ 160 pF/100 m at 0.8 kHz or 1 kHz
Delay Skew	≤ 45 ns/100 m
Loop Resistance	$\leq 17.0 \Omega/100$ m at 20°C
Mutual Capacitance	≤ 5.6 nF/100 m at 1 kHz
Propagation Delay	≤ 538 ns/100 m

4. Mechanical Characteristics - Standard PVC Model

Parameter	Value
Sheath Tensile Strength	≥ 13.5 MPa
Sheath Elongation	$\geq 150\%$
Insulation Tensile Strength	≥ 16.0 MPa
Insulation Elongation	$\geq 300\%$
Ageing Condition	100°C $\pm$ 2°C for 7 days (168 h)
Sheath Tensile Strength After Ageing	≥ 12.5 MPa
Sheath Elongation After Ageing	$\geq 125\%$
Temperature Rating	-20°C to +75°C
Cold Bend	-20°C $\pm$ 2°C $\times$ 4 h; 8 $\times$ cable O.D.; no visible cracks

OPTIONAL INSTALLATION DECLARATIONS: Bend radius $\geq 8 \times$ cable O.D. during installation and $\geq 4 \times$ after installation; pulling tension ≤ 110 N; installation temperature 0°C to +50°C.

Part Number: LSZH : PL-CA6AFTL PVC : PL-CA6AFTP

TRANSFER PERFORMANCE

CAT6A F/UTP | 500 MHz

5. Mandatory CAT6A Performance Requirements

The following 1-500 MHz limits are mandatory for the CAT6A designation. Factory test evidence is required for the ordered model; independent certification is optional.

Category 6A Performance Requirements - ANSI/TIA-568.2-E

Frequency (MHz)	RL (≥ dB)	IL (≤ dB)	NEXT (≥ dB)	ACRF (≥ dB)	PS NEXT (≥ dB)	PS ACRF (≥ dB)
1	20.0	2.1	75.3	68.0	72.3	65.0
4	23.0	3.8	66.3	56.0	63.3	53.0
10	25.0	5.9	60.3	48.0	57.3	45.0
16	25.0	7.5	57.2	43.9	54.2	40.9
31.25	23.6	10.5	52.9	38.1	49.9	35.1
62.5	21.5	15.0	48.4	32.1	45.4	29.1
100	20.1	19.1	45.3	28.0	42.3	25.0
125	19.4	21.5	43.8	26.1	40.8	23.1
200	18.0	27.6	40.8	22.0	37.8	19.0
250	17.3	31.1	39.3	20.0	36.3	17.0
300	17.3	34.3	38.1	18.5	35.1	15.5
500	17.3	45.3	34.8	14.0	31.8	11.0

CAT6A ACCEPTANCE: Applicable balance and alien-crosstalk parameters must also comply with the selected standard. Factory evidence is mandatory; optional third-party certification does not replace product compliance.

APPLICATIONS, FEATURES & COMPLIANCE

CAT6A F/UTP | PVC

6. Typical CAT6A Applications

- 10GBASE-T (10 Gigabit Ethernet)
- 1000BASE-T Gigabit Ethernet
- 100BASE-TX Fast Ethernet
- 10BASE-T Ethernet
- Indoor commercial, enterprise and data-centre structured cabling

7. Additional Applications - Optional Validation

- IEEE 802.3af/at/bt PoE Types 1-4, subject to channel and thermal validation
- 90 m Permanent Link / 100 m Channel documented verification
- High-power PoE bundle and pathway-fill validation
- Additional project-specific applications upon request

8. Key Standard Features

- 23 AWG solid bare-copper conductor at 0.570 ± 0.005 mm
- HDPE insulation and a central cross separator
- F/UTP overall aluminium/Mylar foil screen with tinned-copper drain wire
- PVC jacket, grey RAL 7035, with black marking
- 100 Ω nominal impedance and mandatory CAT6A performance through 500 MHz

Part Number: LSZH : PL-CA6AFTL PVC : PL-CA6AFTP

9. Standards and Compliance

Standard / Certification	Status
ANSI/TIA-568.2-E	Mandatory Category 6A baseline from 1-500 MHz; factory test evidence required
ISO/IEC 11801 (jacket marking)	Printing reference only; not a separate compliance certificate
ISO/IEC 11801-1 / EN 50288-10-1	Optional verified compliance for Class EA / screened 500 MHz cable
IEC 61156-5:2020	Optional only with supporting cable test evidence
IEEE 802.3an / 802.3af/at/bt	10GBASE-T is a CAT6A application; PoE Types 1-4 require channel and thermal validation
IEC 60332-1-2	Optional flame-test claim for the ordered PVC jacket, with supporting report
IEC 60754-1/-2 / IEC 61034-2	Optional for the LSZH model only, with supporting reports
RoHS / ETL / UL	Optional: RoHS declaration and valid ETL/UL listing for the ordered model

QUALITY, OPTIONS & WARRANTY

CAT6A F/UTP | 305 m

10. Quality and Identification

- Standard base length: 305 m
- Base jacket: PVC, grey RAL 7035, with black printing
- Sequential metre marking and reel-in-box packaging require order confirmation
- Permanent Link / Channel and PoE reports are optional documented services

11. Warranty - Optional

25-Year System Warranty

Subject to proper installation and certified components usage.