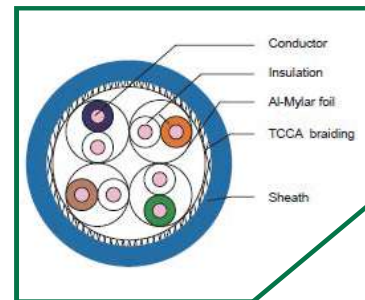
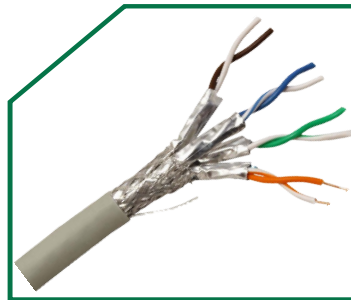


Part Number:

LSZH : PL-CA6ASTL

PVC : PL-CA6ASTP



Category 6A S/FTP cable with 100 Ω nominal impedance, four individually foil-screened twisted pairs, one overall aluminium-magnesium alloy (LMS) braid, 23 AWG solid bare-copper conductors, foamed-polyethylene (FOPE) insulation and a standard PVC jacket.

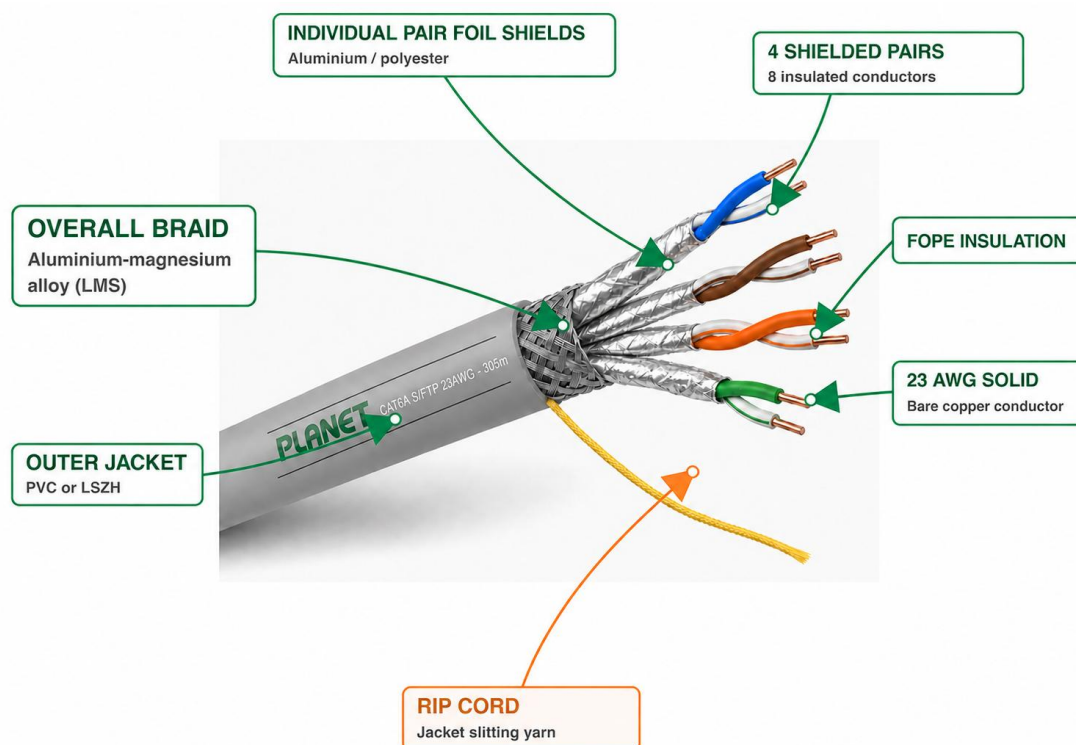
Unless explicitly marked Optional, the values below define the standard PVC/LMS model. Optional items require written order confirmation and supporting evidence where applicable.

S/FTP LMS Overall Braid	23 AWG 0.570 mm Copper	500 MHz Category 6A	PVC Standard Jacket
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"Engineered for Performance. Built for Reliability."

1. Product Overview

The standard PL-CA6ASTP model is a 500 MHz PVC-jacketed S/FTP 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-CA6ASTL PVC : PL-CA6ASTP

2. Construction:

Parameter	Specification
Cable Design	S/FTP: 4 individually foil-screened twisted pairs (8 conductors) plus one overall braid
Conductor	23 AWG solid bare copper; 0.570 ± 0.005 mm
Insulation	FOPE; nominal O.D. 1.35 ± 0.10 mm; average thickness 0.39 mm
Pair Colours	White/Blue-Blue; White/Green-Green; White/Orange-Orange; White/Brown-Brown
Rip Cord	3 × 250D jacket-slitting cord
Individual Pair Shield	Aluminium/polyester foil around each individual pair
Overall Braid	Standard LMS braid, 16/4/0.12 mm, coverage $\geq 30\%$; optional tinned-copper braid
Outer Jacket	Standard PVC, 0.55 ± 0.05 mm; optional LSZH uses separate model PL-CA6ASTL
Overall Diameter	7.60 ± 0.40 mm
Jacket Colour / Printing	Grey RAL 7035; black printing

TECHNICAL SPECIFICATIONS

CAT6A S/FTP | PVC BASE

3. Electrical Characteristics - Standard PVC Model

Parameter	Specification
Frequency Range	1-500 MHz
Characteristic Impedance	$100 \pm 15 \Omega$ over 1-500 MHz
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
Enhanced DC Resistance	$\leq 8.5 \Omega/100$ m at 20°C
Loop Resistance	$\leq 17.0 \Omega/100$ m at 20°C
Propagation Delay	≤ 538 ns/100 m at 100 MHz.
Mutual Capacitance	≤ 5.0 nF/100 m
PoE Operating Voltage	IEEE 802.3 PoE application up to 57 V DC
Installed-Cabling / PoE Verification	90 m Permanent Link / 100 m Channel and PoE Types 1-4 reports, upon request

Part Number: LSZH : PL-CA6ASTL PVC : PL-CA6ASTP

4. Mechanical Characteristics - Standard PVC Model

Parameter	Value
Sheath Tensile Strength	≥ 13.5 MPa
Sheath Elongation	≥ 150%
Insulation Tensile Strength	≥ 10.0 MPa
Insulation Elongation	≥ 200%
Ageing Condition	100°C ± 2°C for 7 days (168 h)
Sheath Tensile Strength After Ageing	≥ 12.5 MPa
Sheath Elongation After Ageing	≥ 125%
Temperature Rating	-20°C to +75°C
Cold Bend	-20°C ± 2°C × 4 h; 8× cable O.D.; no visible cracks

OPTIONAL INSTALLATION DECLARATIONS: Bend radius ≥ 8× cable O.D. during pulling and ≥ 4× after installation; pulling force ≤ 110 N; installation temperature 0°C to +50°C; IEC 60332-1-2 flame test upon request.

CAT6A PERFORMANCE REQUIREMENTS

CAT6A S/FTP | 500 MHz

5. Mandatory CAT6A Cable Performance

The following 1-500 MHz cable 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.

Part Number: LSZH : PL-CA6ASTL PVC : PL-CA6ASTP

APPLICATIONS, COMPLIANCE & OPTIONS

CAT6A S/FTP | PVC

6. Typical CAT6A Applications

- 10GBASE-T (10 Gigabit Ethernet)
- 1000BASE-T Gigabit Ethernet
- 100BASE-TX and 10BASE-T Ethernet
- Indoor enterprise, data-centre and elevated-EMI cabling with continuous bonding

7. 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 Class EA / EN 50288-10-1	Optional verified compliance for Class EA / screened 500 MHz cable
EN 50173-1 / IEEE 802.3an	EN 50173-1 system verification is optional; 10GBASE-T is a CAT6A application
IEC 61156-5	Optional only with supporting cable test evidence
IEEE 802.3af/at/bt	Optional PoE Types 1-4 claim subject to channel and thermal validation
IEC 60332-1-2 / CPR EN 50575	Optional only with the applicable flame report and CPR classification
RoHS / CE / UL / ETL	Optional only with declarations or valid listings covering the ordered model

8. Warranty - Optional

25-Year System Warranty

Subject to proper installation and certified components usage.