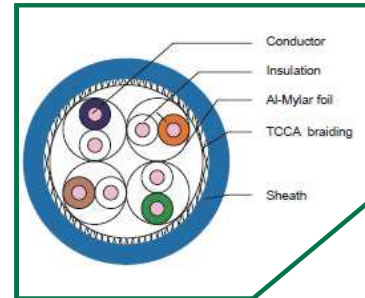
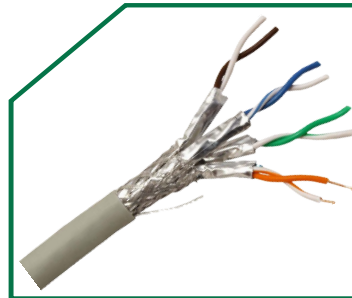


Part Number:

LSZH : PL-CA7STL

PVC : PL-CA7STP



Category 7 S/FTP cable based on the manufacturer construction: 23 AWG solid bare-copper conductors, FOPE insulation, individually foil-screened pairs, an LMS overall braid, and an LSZH jacket.

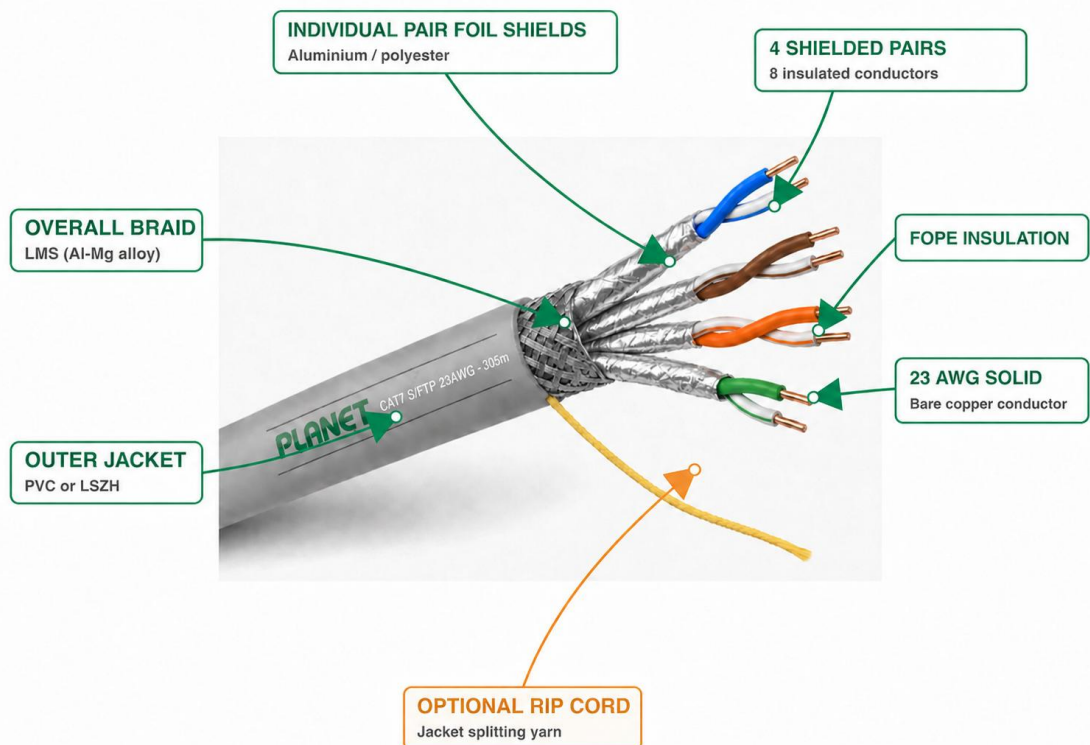
The manufacturer values are the governing baseline. Higher or additional declarations from the PLANET reference PDF are identified as optional and require order confirmation or supporting evidence.

S/FTP Fully Shielded	23 AWG 0.580 mm Copper	600 MHz Class F Design Target	10GBASE-T Base Application
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"Engineered for Performance. Built for Reliability."

1. General Description

Category 7 / Class F shielded horizontal-cable design with four individually foil-screened twisted pairs and an overall braided screen. The base product is the LSZH model PL-CA7STL; final compliance requires applicable cable and channel test evidence.



CAT7 S/FTP Cable Construction - Manufacturer Base Labels

Part Number: LSZH : PL-CA7STL PVC : PL-CA7STP

2. Construction - Base

Parameter	Specification
Conductor	23 AWG solid bare copper; 0.580 ± 0.005 mm
Number of Conductors	8 conductors / 4 twisted pairs
Insulation	FOPE; nominal O.D. 1.38 ± 0.10 mm; average thickness 0.40 mm
Pair Colours	White/Blue + Blue; White/Green + Green; White/Orange + Orange; White/Brown + Brown
Individual Pair Shield	Aluminium/polyester foil around each twisted pair
Overall Braid	LMS aluminium-magnesium; 16/5/0.12 mm; coverage $\geq 30\%$
Drain Wire / Outside Wrap	Optional: Tinned-copper drain wire and/or nylon jacket-splitting rip cord
Shielding Type	S/FTP - individually screened pairs with overall braid
Outer Jacket	LSZH; thickness 0.55 ± 0.05 mm
Overall Diameter	7.80 ± 0.40 mm
Jacket Colour / Printing	Grey RAL 7035; black marking

TECHNICAL SPECIFICATIONS

CAT7 S/FTP | LSZH BASE

3. Electrical Characteristics - Base

Parameter	Specification
Frequency Range	1-600 MHz
Characteristic Impedance	$100 \pm 15 \Omega$ over 1-600 MHz
Propagation Delay (max.)	≤ 538 ns/100 m
Propagation Delay Skew (max.)	≤ 25 ns/100 m
DC Resistance, Single Conductor (max.)	$\leq 9.0 \Omega/100$ m at 20°C
DC Resistance Unbalance (max.)	Within pair $\leq 2\%$; between pairs $\leq 4\%$
Insulation Resistance (min.)	≥ 5000 M Ω ·km at 20°C; test voltage 100-500 V DC
Wire-to-Ground Capacitance Unbalance (max.)	≤ 160 pF/100 m at 0.8 or 1 kHz
Propagation Delay	≤ 538 ns/100 m at 100 MHz
Enhanced DC Resistance	$\leq 8.5 \Omega/100$ m at 20°C
Enhanced Loop Resistance	$\leq 17.0 \Omega/100$ m at 20°C
Mutual Capacitance	≤ 5.6 nF/100 m at 1 kHz.
Nominal Velocity of Propagation (NVP)	Nominal 68%; validation upon request
Operating Voltage / PoE	Up to 57 V DC; PoE validation requires test evidence

Part Number: LSZH : PL-CA7STL PVC : PL-CA7STP

4. Mechanical Characteristics - Base

Parameter	Value
Sheath Tensile Strength	≥ 10.0 MPa
Sheath Elongation	≥ 125%
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	≥ 8.0 MPa
Sheath Elongation After Ageing	≥ 100%
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: Minimum bend radius 4× cable diameter after installation; pulling force ≤ 110 N; installation temperature 0°C to +50°C; IEC 60332-1 flame rating only when ordered and verified.

TRANSFER PERFORMANCE (100 m)

CAT7 S/FTP | 600 MHz

5. Technical Performance - Base

Manufacturer's Category 7 S/FTP Cable Transfer-Performance Limits (100 m) – 600 MHz Production compliance shall be demonstrated by applicable network-analyser test evidence.

Category 7 S/FTP Cable Performance Limits (100 m) – 600 MHz.

Frequency (MHz)	RL min. (dB)	IL max. (dB/100 m)	NEXT min. (dB)	ACRF min. (dB)	PSNEXT min. (dB)	PSACRF min. (dB)
1.0	20.0	2.0	78.0	78.0	75.0	75.0
4.0	23.0	3.7	78.0	78.0	75.0	75.0
8.0	24.5	5.2	78.0	77.2	75.0	74.2
10.0	25.0	5.9	78.0	75.3	75.0	72.3
16.0	25.0	7.4	78.0	71.2	75.0	68.2
20.0	25.0	8.3	78.0	69.3	75.0	66.3
25.0	24.3	9.3	78.0	67.3	75.0	64.3
31.3	23.6	10.4	78.0	65.4	75.0	62.4
62.5	21.5	14.9	75.5	59.4	72.5	56.4
100.0	20.1	19.0	72.4	55.3	69.4	52.3
200.0	18.0	27.5	67.9	49.3	64.9	46.3
250.0	17.3	31.0	66.4	47.3	63.4	44.3
300.0	17.3	34.2	65.2	45.8	62.2	42.8
400.0	17.3	40.0	63.4	43.3	60.4	40.3
500.0	17.3	45.3	61.9	41.3	58.9	38.3
600.0	17.3	50.1	60.7	39.7	57.7	36.7

DATA / ACCEPTANCE NOTE: The source table interchanged the RL and attenuation headings; the value series is retained under the technically consistent RL and IL headings. Category 7 / Class F claims require applicable test evidence.

Part Number: LSZH : PL-CA7STL PVC : PL-CA7STP

Performance Notes

- Full Class F performance requires a complete shielded channel, correct bonding, and compatible GG45 or TERA connectivity.
- Validation above 600 MHz is optional and must be supported by an applicable test report.

APPLICATIONS, FEATURES & COMPLIANCE

CAT7 S/FTP | CLASS F

6. Typical Applications - Base

- 10GBASE-T (10 Gigabit Ethernet) with compatible channel hardware
- 1000BASE-T Gigabit Ethernet
- 100BASE-TX and 10BASE-T Ethernet
- Data-centre and high-frequency backbone links
- Industrial or high-EMI environments with correct shield bonding

7. Enhanced Applications - Optional Validation

- PoE / PoE+ / PoE++ applications
- 90 m Permanent Link / 100 m Channel verification
- Validated performance above 600 MHz, up to 1000 MHz
- IP CCTV, VoIP, and smart-building systems with project-specific validation

8. Key Base Features

- 23 AWG solid bare-copper conductors at 0.580 ± 0.005 mm
- FOPE insulation with individual aluminium/Mylar foil shielding
- LMS aluminium-magnesium overall braid with at least 30% coverage
- LSZH jacket, grey RAL 7035, and manufacturer performance targets through 600 MHz
- Operating temperature range from -20°C to +75°C

9. Standards and Compliance

Standard / Certification	Status
ISO/IEC 11801-1:2017 + Amd 1:2025	Class F system reference; compliance requires test evidence
EN 50288-4-1	Optional screened-cable verification through 600 MHz
IEC 61156-5:2020	Optional network-analyser cable verification
EN 50173-1	Optional Class F generic-cabling verification
ANSI/TIA-568.2-E	Optional Cat6A/RJ45 interoperability reference; not Category 7
IEEE 802.3an	10GBASE-T application reference for compatible channels
IEEE 802.3af/at/bt	Optional PoE application verification
RoHS / CE	Optional supporting documentation
CPR (EN 50575) / UL / ETL	Upon request and certification

SYSTEM COMPATIBILITY: Full Class F performance requires compatible GG45 or TERA connectivity and correct shield bonding. An RJ45 channel is normally limited to Category 6A / Class EA end-to-end performance.

Part Number: **LSZH** : PL-CA7STL **PVC** : PL-CA7STP

QUALITY, OPTIONS & WARRANTY

CAT7 S/FTP | 305 m

10. Quality and Identification

- Standard base length: 305 m
- Base jacket: LSZH, grey RAL 7035, with black printing
- Sequential metre marking and reel-in-box packaging require order confirmation
- Sample Fluke 90 m Permanent Link and 100 m Channel reports are optional documented services

11. Warranty - Optional

25-Year System Warranty

Subject to proper installation, certified components, and written project approval.