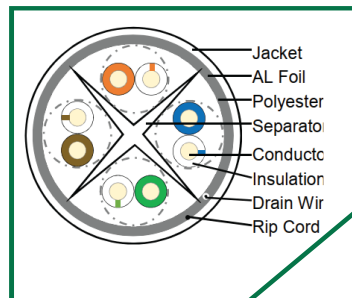
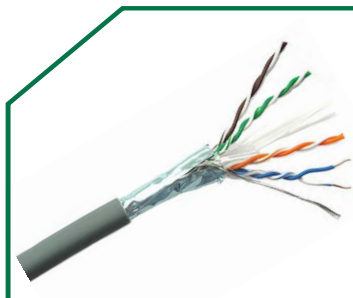


Part Number:

LSZH : PL-CA6FTL

PVC : PL-CA6FTP



1. General Description

High-performance Category 6 F/UTP cable engineered for advanced structured cabling systems, fully compliant with international standards. Designed to deliver superior shielding performance, stable high-speed data transmission, and enhanced EMI/RFI protection in commercial, industrial, and enterprise network environments.

"Engineered for Performance. Built for Reliability."

2. Construction

Parameter	Specification
Conductor Material	100% Bare Copper (Cu)
Conductor Size	23 AWG (0.565 – 0.57 mm)
Number of Conductors	8 (4 Twisted Pairs)
Insulation Material	High-Density Polyethylene (HDPE)
Overall Shielding	Aluminum polyester tape
Shielding Type	F/UTP (4 Foiled Twisted Pair)
Cable Diameter	7.40±0.40mm
Drain Wire	Tinned Copper
Outer Jacket	PVC / LSZH (Optional)
Jacket Type	Virgin Material (Non-Recycled)

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

3. Electrical Characteristics

Parameter	Specification
Characteristic Impedance	100 ± 15 Ω
DC Resistance	≤ 9.38 Ω/100m
Loop Resistance	≤ 18.8 Ω/100m
Resistance Unbalance	≤ 5%
Capacitance	≤ 5.6 nF/100m
Frequency Range	Up to 250 MHz
Operating Voltage	IEEE 802.3 PoE standard (up to 57V DC)

4. Mechanical Characteristics

Parameter	Value
Minimum Bend Radius	4 × Cable Diameter
Pulling Force	≤ 110 N
Operating Temperature	-20°C to +60°C
Installation Temperature	0°C to +50°C
Flame Rating	Optional (IEC 60332-1 compliant upon request)

5. Applications

- Structured Cabling Systems
- Gigabit Ethernet Networks (1000Base-T)
- Office Buildings & Enterprise Network Environments
- Industrial & High EMI Environments
- IP CCTV Systems
- Data Centres
- PoE / PoE+ / PoE++ Systems & HD Video Transmission
- Smart Home & Industrial Networks

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

5. Technical Performance:

Cat6 F/UTP baseline performance with individually foil-shielded pairs and overall braid shield for enhanced EMI protection. Provides enhanced noise immunity and stable transmission performance over 100-meter channel length

Frequency (MHz)	RL (≥ dB)	ATT (≤ dB)	NEXT (≥ dB)	ACRF (≥ dB)	PS NEXT (≥ dB)	PS ACRF (≥ dB)
1	19	3	65	64	62	61
4	21	3.8	64	52	61	49
8	21	5.3	59	46	57	43
10	21	6	57	44	55	41
16	20	7.6	54	40	52	37
20	19	8.5	53	38	50	35
25	19	9.5	51	36	49	33
31.25	18	10.7	50	34	47	31
62.5	16	15	45	28	42	25
100	14	19	41	24	39	21
200	11	28	36	18	34	15
250	10	32	35	16	32	13

7. Transmission Performance

- Supports 10/100/1000 Mbps (Gigabit Ethernet)
- Bandwidth up to 250 MHz
- Designed for PoE / PoE+ / PoE++ applications
- Excellent NEXT, FEXT, and Return Loss performance
- Superior EMI/RFI shielding protection
- Reduced Alien Crosstalk (AXT) for stable transmission

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

8. Key Features

- 23AWG Solid Bare Copper Conductors for optimal conductivity
- Individual foil shielding on each pair for enhanced signal isolation
- Overall braided shielding for maximum EMI/RFI protection
- Low attenuation for long-distance stable transmission
- Precision twisted pairs for reduced crosstalk
- Fully optimized for PoE / PoE+ / PoE++ applications
- Durable outer jacket (100% virgin material) for long service life
- High performance verified through Fluke testing

9. Standards Compliance

- ISO/IEC 11801 Class E
- ANSI/TIA-568.2-D
- EN 50173-1
- RoHS Compliant
- CE Compliant
- CPR (EN 50575) – upon request
- UL / ETL Verified – upon request

10. Quality Assurance

Manufactured under strict quality control to ensure:

- Consistent electrical performance
- Reliable long-term operation
- Enhanced shielding efficiency
- Full compliance with international standards

Testing:

- 100% Fluke Tested (Channel & Permanent Link)

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

11. Key Advantages

- Superior shielding against EMI/RFI interference
- Enhanced signal stability in noisy environments
- High copper purity for maximum signal transmission efficiency
- Ideal for industrial and enterprise installations

12. Warranty

25-Year System Warranty

(Subject to proper installation and certified components usage)