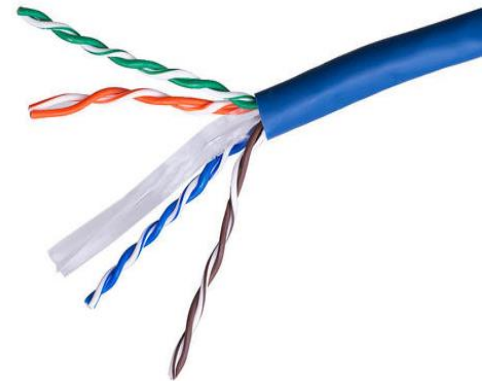


## Introduction

As infrastructures become denser and more complex, the value of structured cabling is magnified. Structured cabling makes it easier for the network to grow and change, using a modular design that supports new equipment and applications. The variety of infrastructure cables and accessories are based on Cat6A; however, structured cabling is more than just that. It's a comprehensive system of cables and related hardware that provides a flexible, future-ready infrastructure for data communications. Category 6A is an Ethernet cable standard that is often called Cat6A. The standard supports the transmission of large amounts of data at high speeds of up to 500MHz. This augmented rating is twice that of regular Cat6A cable. Cat6A cables are comprised of pairs of twisted copper wire. The Category 6A technology supports ten gigabit Ethernet and has improved alien crosstalk specifications over its predecessor.



## Application

Businesses use Ethernet cabling in office buildings, data centers and users, primary considerations determine ethernet cable to use for your business. Ethernet cables can be classified into different types according to different specifications, unshielded, Foiled and shielded cables in terms of shielding types, and solid copper and stranded copper cable in terms of the copper conductor in pairs. With regards to cable jacket rating, there are CM, CMR, and CMP cables. Choices of cables vary from different application scenarios.

- Ethernet Networking
- Computer Networking Project
- Audio & Data Transmission
- Digital Networking
- Broadband Networking Communication

**U/UTP**



**F/UTP**



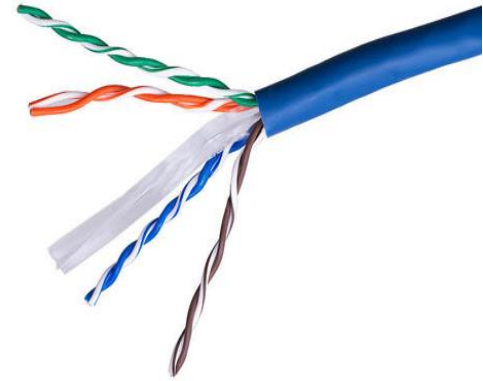
**SF/UTP**



## Category 6A U/UTP Cables

### Operation Features

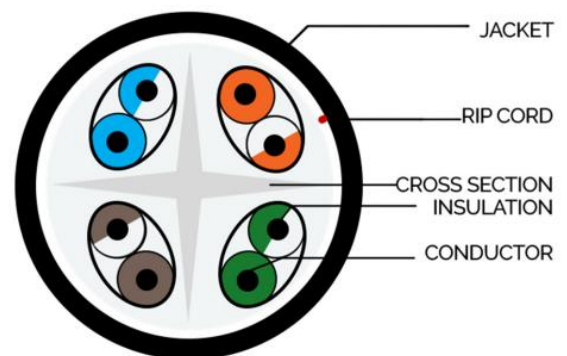
The Category 6A U/UTP has 0.57mm diameter solid copper conductors, twisted into 4 pairs of wires. We offer a depot of various high-quality, high-speed options for solid-conductor, Cat6A UTP cables used in many backbones cabling solutions.



- U/UTP CAT6A ethernet cable UTP cat6A 4 pairs copper twist wire
- Standards UL444/CSA-C22.2 No 214, Type CM EIA/TIA-568A and EIA/TIA-568B.2, Horizontal cable, also available in CMR "Riser Rated" and CMP "Plenum Rated"
- Conductor 23AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3, 155 Mbit ATM and 1.2 Gbit ATM
- Rating Temperature: 60°C
- 100% component test to guarantee the quality
- Installations with Lanwave's cable and connectivity are qualified for a 25 years full system technology warranty
- Standard length of cable is 305 meters (1000ft)

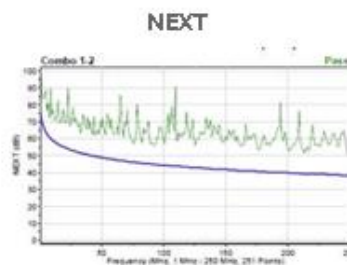
### Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 500 MHz and with guaranteed performance to 500 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class E, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 500 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.4mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.



## Electrical Performance

Freq in MHz	Attn		NEXT		PSNEXT		ACR-F		PS ACR-F		PS ANEXT		PS AACR-F		RL	
	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	in dB	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	87.8	64.8	84.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	70.3	63.3	68.3	55.8	75.8	52.8	72.8	67.0	90.0	66.2	75.9	23.0	29.0
10	5.9	5.9	59.3	64.3	57.3	62.3	47.8	67.8	44.8	64.8	67.0	87.0	58.2	67.9	25.0	31.0
16	7.5	7.5	56.2	61.2	54.2	59.2	43.7	63.7	40.7	60.7	67.0	85.0	54.1	63.8	25.0	31.0
20	8.4	8.4	54.8	59.8	52.8	57.8	41.8	61.8	38.8	58.8	67.0	84.0	52.2	61.9	25.0	31.0
31.25	10.5	10.5	51.9	56.9	49.9	54.9	37.9	57.9	34.9	54.9	67.0	82.1	48.3	58.0	23.6	29.6
62.5	15.0	15.0	47.4	52.4	45.4	50.4	31.9	51.9	28.9	48.9	65.6	79.0	42.3	52.0	21.5	27.5
100	19.1	19.1	44.3	49.3	42.3	47.3	27.8	47.8	24.8	44.8	62.5	77.0	38.2	47.9	20.1	26.1
155	24.1	24.1	41.4	46.4	39.4	44.4	24.0	44.0	21.0	41.0	59.6	74.1	34.4	44.1	18.8	24.8
200	27.6	27.6	39.8	44.8	37.8	42.8	21.8	41.8	18.8	38.8	58.0	72.5	32.2	41.9	18.0	24.0
250	31.1	31.1	38.3	43.3	36.3	41.3	19.8	39.8	16.8	36.8	56.5	71.0	30.2	39.9	17.3	23.3
300	34.3	34.3	37.1	40.1	35.1	38.1	18.3	38.3	15.3	35.3	55.3	69.8	28.7	38.4	16.8	22.8
500	45.3	45.3	33.8	36.8	31.8	34.8	13.8	33.8	10.8	30.8	52.0	66.5	24.2	33.9	15.2	21.2



## Ordering Information

Product Code	Description
LN-UC6Ax-4P-AWG23-xx	Category 6A UTP Cable 4 Pair, 23 AWG

**\* Note:**

x= For the Cable Jacket Types such as “L for LSZH, P for PVC”  
xx= For the Cable Jacket Color such as “BL for Blue, GY for Gray, WH for White”

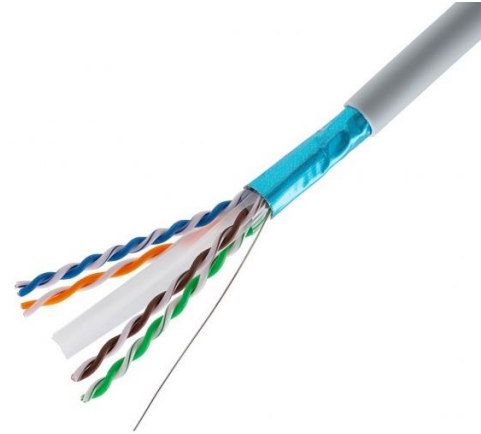
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## Category 6A F/UTP Cables

### Operation Features

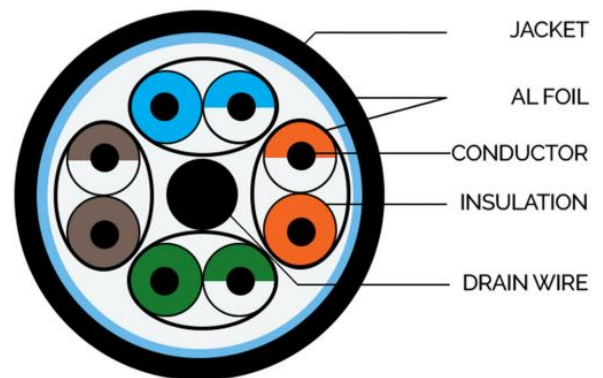
The Category 6A Foiled F/UTP has 0.57mm diameter solid copper conductors, twisted into 4 pairs of wires. We offer a depot of various high-quality, high-speed options for solid-conductor, Cat6A F/UTP cables used in many backbones cabling solutions.

- F/UTP CAT6A ethernet cable F/UTP cat6A 4 pairs Foiled copper twist wire
- Standards UL444/CSA-C22.2 No 214, Type CM EIA/TIA-568A and EIA/TIA-568B.2, Horizontal cable, also available in CMR "Riser Rated" and CMP "Plenum Rated"
- Conductor 23AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3, 155 Mbit ATM and 1.2 Gbit ATM
- Rating Temperature: 60°C
- 100% component test to guarantee the quality
- Installations with Lanwave's cable and connectivity are qualified for a 25 years full system technology warranty
- Standard length of cable is 305 meters (1000ft)



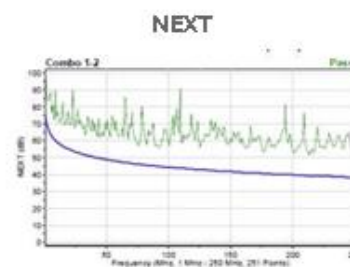
### Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 500 MHz and with guaranteed performance to 500 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class E, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 500 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.4mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.



## Electrical Performance

Freq in MHz	Attn in dB		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		PS ANEXT in dB		PS AACR-F in dB		RL in dB	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	87.8	64.8	84.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	70.3	63.3	68.3	55.8	75.8	52.8	72.8	67.0	90.0	66.2	75.9	23.0	29.0
10	5.9	5.9	59.3	64.3	57.3	62.3	47.8	67.8	44.8	64.8	67.0	87.0	58.2	67.9	25.0	31.0
16	7.5	7.5	56.2	61.2	54.2	59.2	43.7	63.7	40.7	60.7	67.0	85.0	54.1	63.8	25.0	31.0
20	8.4	8.4	54.8	59.8	52.8	57.8	41.8	61.8	38.8	58.8	67.0	84.0	52.2	61.9	25.0	31.0
31.25	10.5	10.5	51.9	56.9	49.9	54.9	37.9	57.9	34.9	54.9	67.0	82.1	48.3	58.0	23.6	29.6
62.5	15.0	15.0	47.4	52.4	45.4	50.4	31.9	51.9	28.9	48.9	65.6	79.0	42.3	52.0	21.5	27.5
100	19.1	19.1	44.3	49.3	42.3	47.3	27.8	47.8	24.8	44.8	62.5	77.0	38.2	47.9	20.1	26.1
155	24.1	24.1	41.4	46.4	39.4	44.4	24.0	44.0	21.0	41.0	59.6	74.1	34.4	44.1	18.8	24.8
200	27.6	27.6	39.8	44.8	37.8	42.8	21.8	41.8	18.8	38.8	58.0	72.5	32.2	41.9	18.0	24.0
250	31.1	31.1	38.3	43.3	36.3	41.3	19.8	39.8	16.8	36.8	56.5	71.0	30.2	39.9	17.3	23.3
300	34.3	34.3	37.1	40.1	35.1	38.1	18.3	38.3	15.3	35.3	55.3	69.8	28.7	38.4	16.8	22.8
500	45.3	45.3	33.8	36.8	31.8	34.8	13.8	33.8	10.8	30.8	52.0	66.5	24.2	33.9	15.2	21.2



## Ordering Information

Product Code	Description
LN-FUC6Ax-4P-AWG23-xx	Category 6A Foiled F/UTP Cable 4 Pair, 23 AWG

**\* Note:**

x= For the Cable Jacket Types such as "L for LSZH, P for PVC"  
xx= For the Cable Jacket Color such as "BL for Blue, GY for Gray, WH for White"

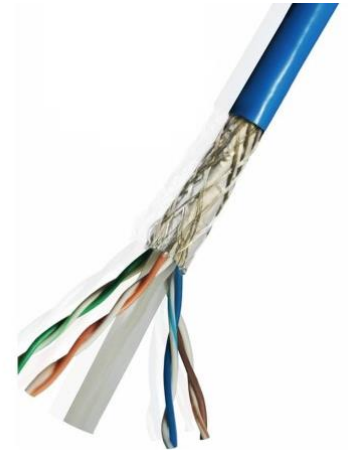
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## Category 6A SF/UTP Cables

### Operation Features

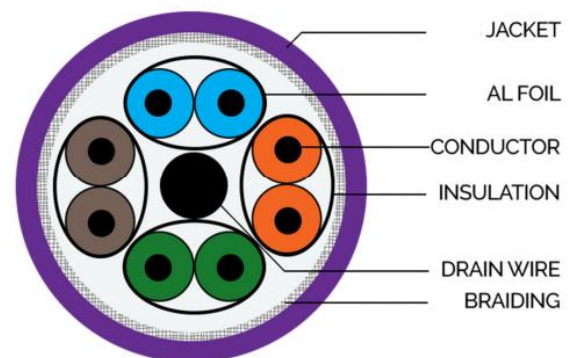
The Category 6A Shielded Foiled SF/UTP has 0.57mm diameter solid copper conductors, twisted into 4 pairs of wires. We offer a depot of various high-quality, high-speed options for solid-conductor, Cat6A SF/UTP cables used in many backbones cabling solutions.

- SF/UTP CAT6A ethernet cable SF/UTP cat6A 4 pairs Shielded Foiled copper twist wire
- Standards UL444/CSA-C22.2 No 214, Type CM EIA/TIA-568A and EIA/TIA-568B.2, Horizontal cable, also available in CMR "Riser Rated" and CMP "Plenum Rated"
- Conductor 23AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3, 155 Mbit ATM and 1.2 Gbit ATM
- Rating Temperature: 60°C
- 100% component test to guarantee the quality
- Installations with Lanwave's cable and connectivity are qualified for a 25 years full system technology warranty
- Standard length of cable is 305 meters (1000ft)



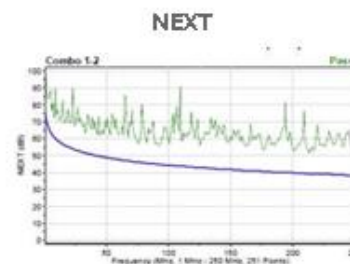
### Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 500 MHz and with guaranteed performance to 500 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class E, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 500 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.4mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.



## Electrical Performance

Freq in MHz	Attn in dB		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		PS ANEXT in dB		PS AACR-F in dB		RL in dB	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	87.8	64.8	84.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	70.3	63.3	68.3	55.8	75.8	52.8	72.8	67.0	90.0	66.2	75.9	23.0	29.0
10	5.9	5.9	59.3	64.3	57.3	62.3	47.8	67.8	44.8	64.8	67.0	87.0	58.2	67.9	25.0	31.0
16	7.5	7.5	56.2	61.2	54.2	59.2	43.7	63.7	40.7	60.7	67.0	85.0	54.1	63.8	25.0	31.0
20	8.4	8.4	54.8	59.8	52.8	57.8	41.8	61.8	38.8	58.8	67.0	84.0	52.2	61.9	25.0	31.0
31.25	10.5	10.5	51.9	56.9	49.9	54.9	37.9	57.9	34.9	54.9	67.0	82.1	48.3	58.0	23.6	29.6
62.5	15.0	15.0	47.4	52.4	45.4	50.4	31.9	51.9	28.9	48.9	65.6	79.0	42.3	52.0	21.5	27.5
100	19.1	19.1	44.3	49.3	42.3	47.3	27.8	47.8	24.8	44.8	62.5	77.0	38.2	47.9	20.1	26.1
155	24.1	24.1	41.4	46.4	39.4	44.4	24.0	44.0	21.0	41.0	59.6	74.1	34.4	44.1	18.8	24.8
200	27.6	27.6	39.8	44.8	37.8	42.8	21.8	41.8	18.8	38.8	58.0	72.5	32.2	41.9	18.0	24.0
250	31.1	31.1	38.3	43.3	36.3	41.3	19.8	39.8	16.8	36.8	56.5	71.0	30.2	39.9	17.3	23.3
300	34.3	34.3	37.1	40.1	35.1	38.1	18.3	38.3	15.3	35.3	55.3	69.8	28.7	38.4	16.8	22.8
500	45.3	45.3	33.8	36.8	31.8	34.8	13.8	33.8	10.8	30.8	52.0	66.5	24.2	33.9	15.2	21.2



## Ordering Information

Product Code	Description
LN-SFUC6Ax-4P-AWG23-xx	Category 6A Shielded Foiled SF/UTP Cable 4 Pair, 23 AWG

**\* Note:**

x= For the Cable Jacket Types such as "L for LSZH, P for PVC"  
 xx= For the Cable Jacket Color such as "BL for Blue, GY for Gray, WH for White"

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