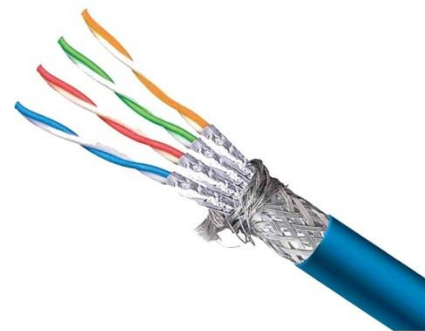


## Introduction

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 Cat7A; 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 7A is an Ethernet cable standard that is often called Cat7A. The standard supports the transmission of large amounts of data at high speeds of up to 1000MHz. This augmented rating is twice that of regular Cat7A cable. Cat7A cables are comprised of pairs of twisted copper wire. The Category 7A technology supports ten gigabit Ethernet and has improved alien crosstalk specifications over its predecessor.



## Application

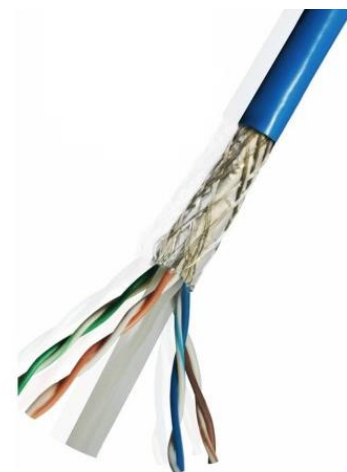
Businesses use Ethernet cabling in office buildings, data centers and users, primary considerations determine ethernet cable to use for your business. Ethernet cables can be classified into different types according to different specifications, shielded cables in terms of shielding types, and solid copper 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

## Operation Features

The Category 7A 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, Cat7A SF/UTP cables used in many backbones cabling solutions.

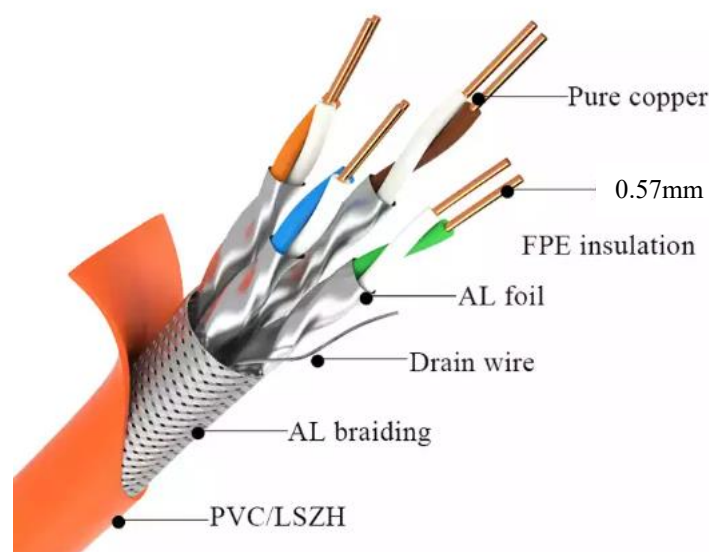
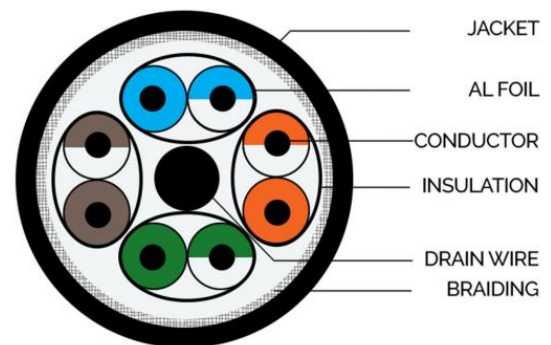
- SF/UTP CAT7A ethernet cable SF/UTP cat7A 4 pairs Shielded Foiled copper twist wire
- Standards UL444/CSA-C22.2 No 214, Type CM EIA/TIA-568A and EIA/TIA-568B.2, Horizontal cable, also available in CMR "Riser Rated" and CMP "Plenum Rated"



- Conductor 23AWG solid 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 1.2Gbit 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 1250 MHz and with guaranteed performance to 1000 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class FA, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed and
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 1000 MHz
- Conductor Diameter:  $0.57 \pm 0.02$
- Outer Cable Diameter:  $8.0\text{mm} \pm 0.2\text{ mm}$
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.



## Electrical Performance

Frequency (in MHz)	Attenuation (in dB/100m)		NEXT pp (in dB)		ACR-F (in dB)		RL (in dB)		Coupling Att. (in dB)		PSANEXT (in dB)		PSAFEXT (in dB)	
	Std Max	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical	Std Min	Typical
1	4.0	4.0	65.0	104.8	65.0	70.0	19.0	38.0	80.0	106.0	67.0	92.4	80.0	83.0
4	4.1	4.0	65.0	94.6	65.0	70.0	19.0	32.0	68.0	94.0	67.0	92.1	79.8	82.8
10	6.4	6.3	65.0	87.8	65.0	70.0	19.0	28.0	60.0	86.0	67.0	91.0	75.9	78.9
16	8.0	7.9	65.0	84.2	63.3	68.3	18.0	26.0	55.9	81.9	67.0	90.0	73.9	76.9
20	9.0	8.9	65.0	82.5	61.4	66.4	17.5	25.0	54.0	80.0	67.0	89.4	72.9	75.9
31.25	11.2	11.1	65.0	79.1	57.5	62.5	16.5	23.1	50.1	76.1	67.0	88.0	71.0	74.0
62.5	15.9	15.6	65.0	73.7	51.5	56.5	14.0	20.0	44.1	70.1	67.0	85.3	68.0	71.0
100	20.3	19.7	65.0	70.0	47.4	52.4	12.0	18.0	40.0	66.0	67.0	83.1	65.9	68.9
155	25.4	24.5	63.0	66.6	43.6	48.6	10.1	16.1	36.2	62.2	67.0	80.8	63.9	66.9
200	28.9	27.9	60.9	64.6	41.4	46.4	9.0	15.0	34.0	60.0	67.0	79.4	62.8	65.8
250	32.5	31.2	59.1	62.8	39.4	44.4	8.0	14.0	32.0	58.0	67.0	78.1	61.8	64.8
300	35.7	34.1	57.7	61.3	37.8	42.8	8.0	13.2	30.5	56.5	67.0	77.1	60.9	63.9
500	46.7	44.1	53.6	57.2	33.4	38.4	8.0	11.0	26.0	52.0	64.5	75.0	58.6	61.6
600	51.4	48.3	52.1	55.8	31.8	36.8	8.0	10.2	24.4	50.4	63.3	75.0	57.8	60.8
700	55.8	52.1	50.8	54.5	30.5	35.5	7.5	9.5	23.1	49.1	62.3	75.0	57.1	60.1
800	59.9	55.7	49.7	53.5	29.3	34.3	7.0	9.0	21.9	47.9	61.5	75.0	56.4	59.4
900	63.8	59.1	48.8	52.5	28.3	33.3	6.5	8.5	20.9	46.9	60.7	74.0	55.9	58.9
1000	67.6	62.3	47.9	51.6	27.4	32.4	6.0	8.0	20.0	46.0	60.0	73.0	55.4	58.4
1250				42.0		25.0		8.0		40.0		70.0		50.0

## Ordering Information

Product Code	Description
LN-SFUC7Ax-4P-AWG23-xx	Category 7A 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”

**Notice:** The data in this document are only reference and will be changed without any notice.  
 This specification is intended as a guide only.