LIGHT TO INNOVATION
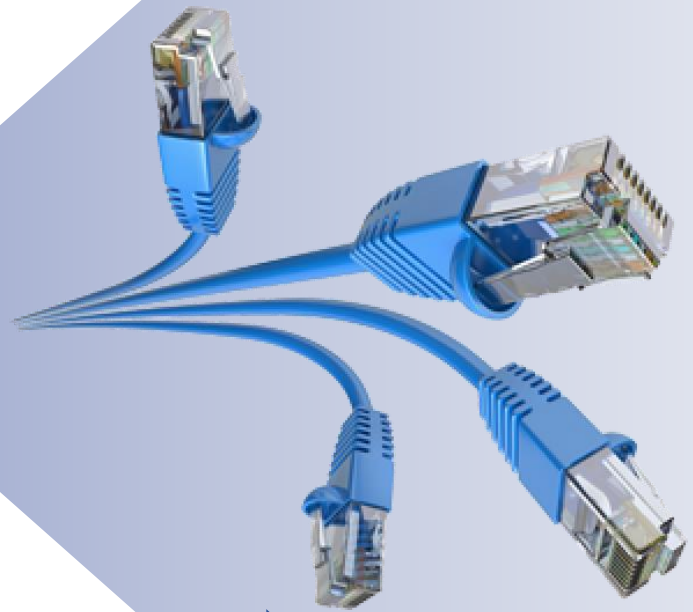
Lenora

Structured Cabling Systems

LanWave™

Leads Communication

2021 - 2022

Table Of Content

Lenora Innovation Ltd. is a European telecommunication company dedicated to providing leading-edge, high-performance telecommunication products and services to business and enterprise customers.

Lenora specializes in manufacturing and marketing of Fiber FTTx, Air blown Total solution, Structure Cabling Systems & related connectivity products that are highly durable and offer superior performance, Lenora has evolved into a world-class provider of a complete line of products to a broad customer base.

By expanding our capabilities and product offerings, we have strategically positioned Lenora to support our customers' needs for increasingly sophisticated communications infrastructure and end-to-end cabling and connectivity solutions, by helping to implement the project from the very first step of network designing to the installation phase, providing all the necessary technical training, service and maintenance.

Lenora Structure Cabling Systems Total Solution using our products range will guarantee the best performance even in the most severe solutions, and it will significantly reduce CaPEX and OpEX in comparison with copper and fiber optic deployment techniques.

Lenora's success in the battlefield provided a foundation for the creation of a broad copper and fiber optic cable range, built on the evolution of new technologies, as well as opportunities to expand our product offerings beyond network solutions.

When you partner with Lenora, We bring you the most advanced products and solutions available. We own the knowledge and experience; we guarantee the results.

Innovation

Lenora brings efficient and innovative solutions customized to specific needs of its customers. It has developed and certified several products as the first in the world, thus contributing to the expansion of affordable and advanced solutions.

Quality control

The quality of products is tested at every stage of the production cycle and is ensured by strict monitoring, Lenora Quality is designed to support a company culture based on continuous improvement, challenging objectives, effective control and corrective action.

Our Business
Lenora Leads Communication

Structure Cabling Design & Engineering

The optical network construction based on fiber optic connectivity system is a proved, flexible and cost-effective solution, but some of the design concept is relatively new compared to the conventional connectivity solutions. With our accumulated knowledge from manufacturing, design and installation for more than 10 years, Lenora provides consulting services including network design by experienced engineers.
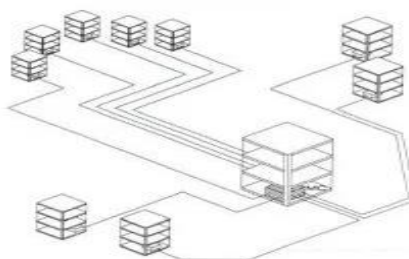
Cabling Deployment & Installation

The structure cabling system works for deploying fiber optic networks and fiber cable generally require elaborated job scheduling and experience in order to guarantee a long-term stable operation and to avoid unexpected cost expenses. For several years, Lenora has successfully carried out fiber optic projects ranging from inbuilding, FTTH, intra-city to long distance in many countries. With this knowledge of skilled engineers and quality products of Lightwave, Lenora provides fiber optic total solution to our customers.
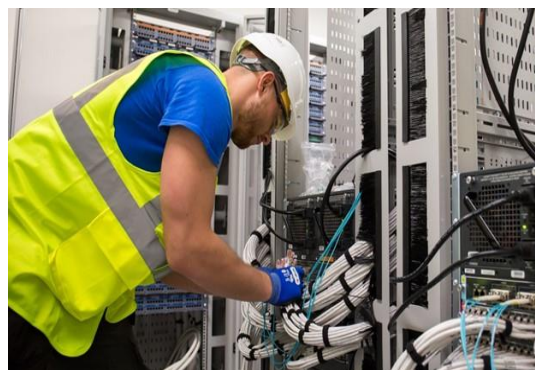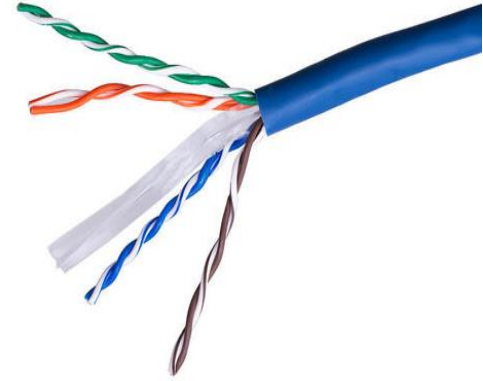
Specialized Training

Lenora experts are trained in the structure cabling systems and various connectivity techniques. We have, the facility available to other customers and partners who require training on structure cabling and connectivity solution. We have the ability to support network design, deliver knowledge about this advanced technology, providing structure cabling Network Management System as well as presenting consulting services. We have, also provide a fully integrated demonstration of structure cabling total solution where our clients can learn directly.
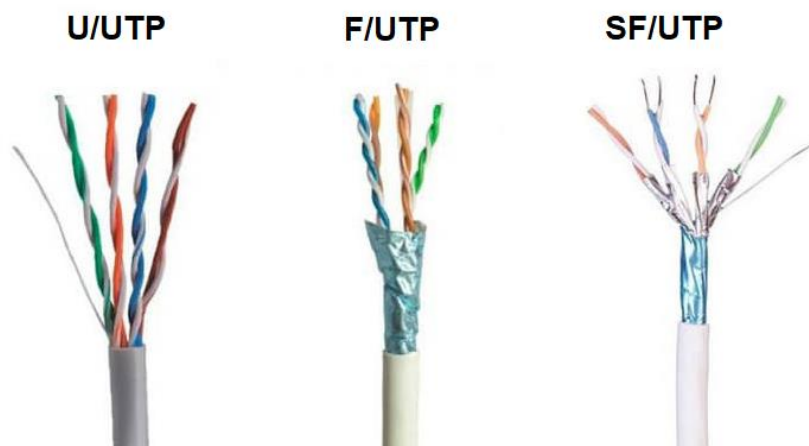
LanWave
Leads Communication

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 Cat6; 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 6 is an Ethernet cable standard that is often called Cat6. The standard supports the transmission of large amounts of data at high speeds of up to 250MHz. This augmented rating is twice that of regular Cat6 cable. Cat6 cables are comprised of pairs of twisted copper wire. The Category 6 technology supports one 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
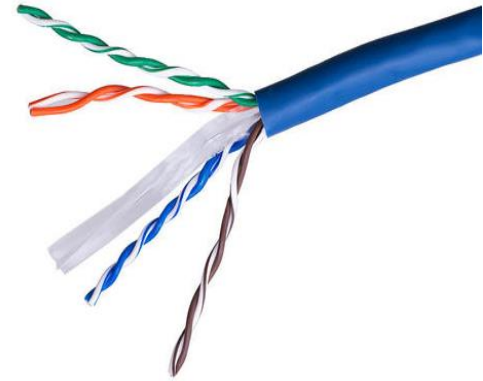
LanWave
Leads Communication
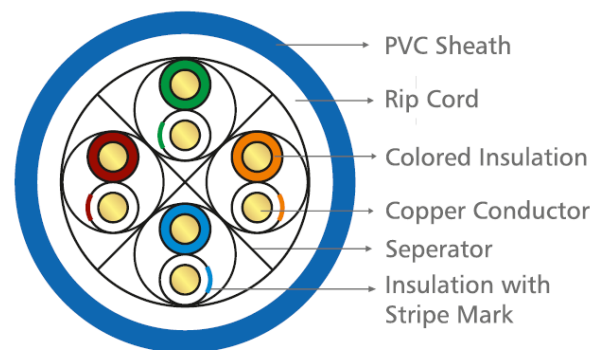
Category 6 U/UTP Cables

Operation Features

The Category 6 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, Cat6 UTP cables used in many backbones cabling solutions.

- U/UTP CAT6 ethernet cable UTP cat6 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, 155 Mbit ATM, 622 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
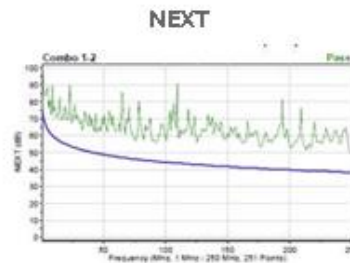- Standard length of cable is 305 meters (1000ft)

Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 350 MHz and with guaranteed performance to 250 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 250 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.2mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.

PVC Sheath
Rip Cord
Colored Insulation
Copper Conductor
Seperator
Insulation with Stripe Mark

Electrical Performance

Freq.	IL in Db/100m		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		RL in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.0	2.0	74.3	80.3	72.3	78.3	67.8	72.8	64.8	69.8	20.0	22.0
4	3.8	3.8	65.3	71.3	63.3	69.3	55.8	60.8	52.8	57.8	23.0	25.0
10	6.0	6.0	59.3	65.3	57.3	63.3	47.8	52.8	44.8	49.8	25.0	27.0
16	7.6	7.6	56.2	62.2	54.2	60.2	43.7	48.7	40.7	45.7	25.0	27.0
20	8.5	8.5	54.8	60.8	52.8	58.8	41.8	46.8	38.8	43.8	25.0	27.0
31.25	10.7	10.7	51.9	57.9	49.9	55.9	37.9	42.9	34.9	39.9	23.6	25.6
62.5	15.4	15.4	47.4	53.4	45.4	51.4	31.9	36.9	28.9	33.9	21.5	23.5
100	19.8	19.8	44.3	50.3	42.3	48.3	27.8	32.8	24.8	29.8	20.1	22.1
155	25.2	25.2	41.4	47.4	39.4	45.4	24.0	29.0	21.0	26.0	18.8	20.8
200	29.0	29.0	39.8	45.8	37.8	43.8	21.8	26.8	18.8	23.8	18.0	20.0
250	32.8	32.8	38.3	44.3	36.3	42.3	19.8	24.8	16.8	21.8	17.3	19.3
300	-	36.4	-	43.1	-	41.1	-	23.3	-	20.3	-	18.8
350	-	39.8	-	42.1	-	40.1	-	21.9	-	18.9	-	18.3

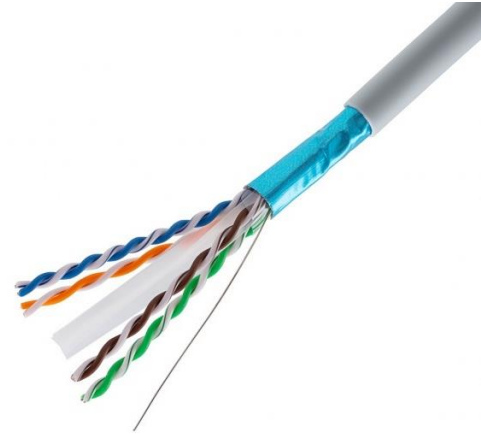**Insertion Loss**

Return Loss

NEXT

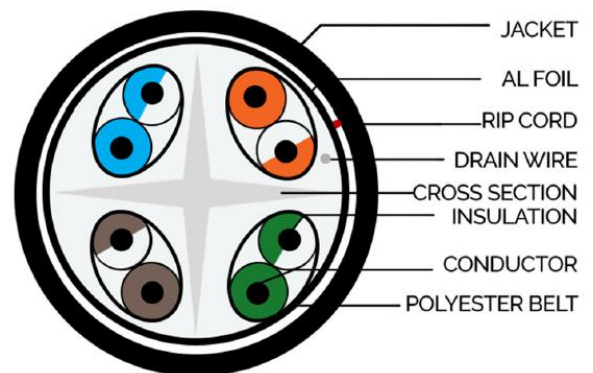## Category 6 F/UTP Cables

Operation Features

The Category 6 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, Cat6 F/UTP cables used in many backbones cabling solutions.

- F/UTP CAT6 ethernet cable F/UTP cat6 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, 155 Mbit ATM, 622 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)

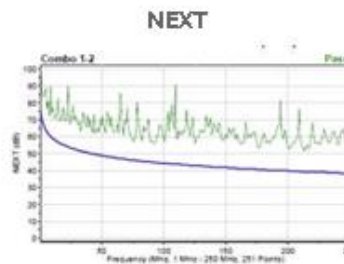### Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 350 MHz and with guaranteed performance to 250 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 250 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.2mm ± 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.	IL in Db/100m		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		RL in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.0	2.0	74.3	80.3	72.3	78.3	67.8	72.8	64.8	69.8	20.0	22.0
4	3.8	3.8	65.3	71.3	63.3	69.3	55.8	60.8	52.8	57.8	23.0	25.0
10	6.0	6.0	59.3	65.3	57.3	63.3	47.8	52.8	44.8	49.8	25.0	27.0
16	7.6	7.6	56.2	62.2	54.2	60.2	43.7	48.7	40.7	45.7	25.0	27.0
20	8.5	8.5	54.8	60.8	52.8	58.8	41.8	46.8	38.8	43.8	25.0	27.0
31.25	10.7	10.7	51.9	57.9	49.9	55.9	37.9	42.9	34.9	39.9	23.6	25.6
62.5	15.4	15.4	47.4	53.4	45.4	51.4	31.9	36.9	28.9	33.9	21.5	23.5
100	19.8	19.8	44.3	50.3	42.3	48.3	27.8	32.8	24.8	29.8	20.1	22.1
155	25.2	25.2	41.4	47.4	39.4	45.4	24.0	29.0	21.0	26.0	18.8	20.8
200	29.0	29.0	39.8	45.8	37.8	43.8	21.8	26.8	18.8	23.8	18.0	20.0
250	32.8	32.8	38.3	44.3	36.3	42.3	19.8	24.8	16.8	21.8	17.3	19.3
300	-	36.4	-	43.1	-	41.1	-	23.3	-	20.3	-	18.8
350	-	39.8	-	42.1	-	40.1	-	21.9	-	18.9	-	18.3

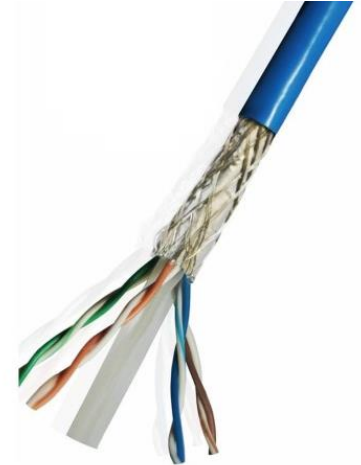

Insertion Loss

Return Loss

NEXT

Category 6 SF/UTP Cables
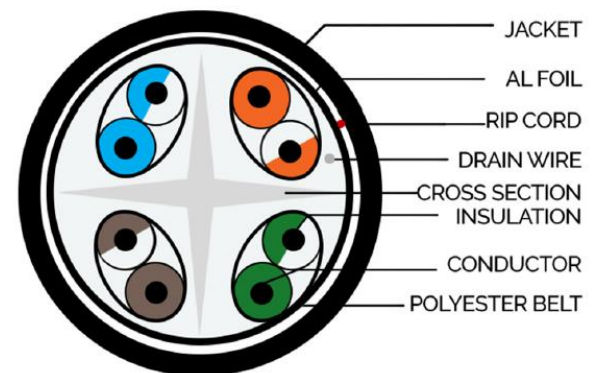
Operation Features

The Category Shielded Foiled 6 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, Cat6 SF/UTP cables used in many backbones cabling solutions.

- SF/UTP CAT6 ethernet cable SF/UTP cat6 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, 155 Mbit ATM, 622 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
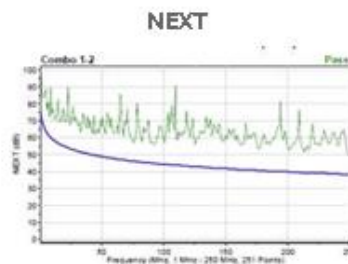- Standard length of cable is 305 meters (1000ft)

Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested to 350 MHz and with guaranteed performance to 250 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 250 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.2mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.
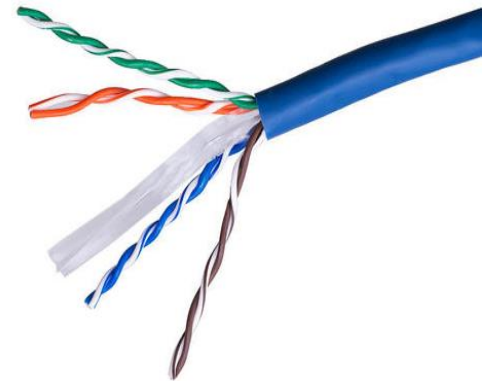
Electrical Performance

Freq.	IL in Db/100m		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		RL in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.0	2.0	74.3	80.3	72.3	78.3	67.8	72.8	64.8	69.8	20.0	22.0
4	3.8	3.8	65.3	71.3	63.3	69.3	55.8	60.8	52.8	57.8	23.0	25.0
10	6.0	6.0	59.3	65.3	57.3	63.3	47.8	52.8	44.8	49.8	25.0	27.0
16	7.6	7.6	56.2	62.2	54.2	60.2	43.7	48.7	40.7	45.7	25.0	27.0
20	8.5	8.5	54.8	60.8	52.8	58.8	41.8	46.8	38.8	43.8	25.0	27.0
31.25	10.7	10.7	51.9	57.9	49.9	55.9	37.9	42.9	34.9	39.9	23.6	25.6
62.5	15.4	15.4	47.4	53.4	45.4	51.4	31.9	36.9	28.9	33.9	21.5	23.5
100	19.8	19.8	44.3	50.3	42.3	48.3	27.8	32.8	24.8	29.8	20.1	22.1
155	25.2	25.2	41.4	47.4	39.4	45.4	24.0	29.0	21.0	26.0	18.8	20.8
200	29.0	29.0	39.8	45.8	37.8	43.8	21.8	26.8	18.8	23.8	18.0	20.0
250	32.8	32.8	38.3	44.3	36.3	42.3	19.8	24.8	16.8	21.8	17.3	19.3
300	-	36.4	-	43.1	-	41.1	-	23.3	-	20.3	-	18.8
350	-	39.8	-	42.1	-	40.1	-	21.9	-	18.9	-	18.3

Insertion Loss

Return Loss

NEXT

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
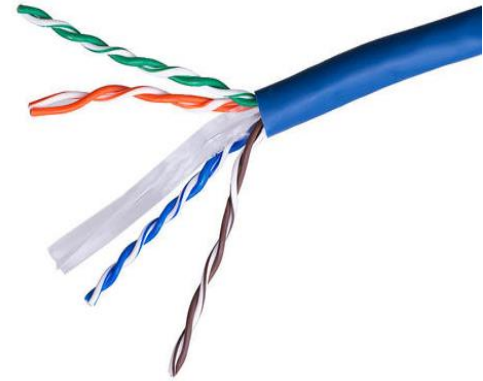- Broadband Networking Communication

LanWave

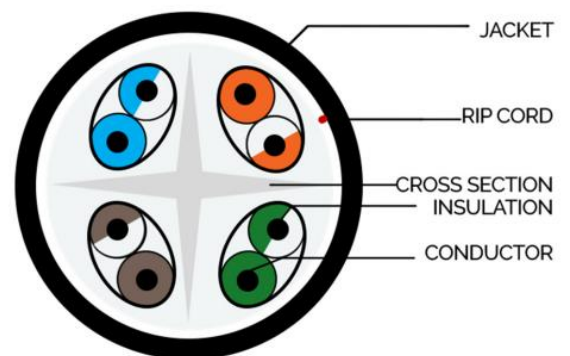## Category 6A U/UTP Cables

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
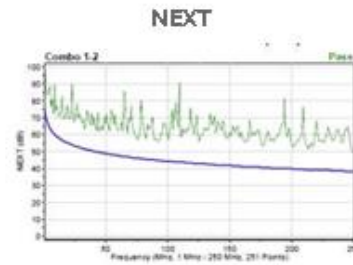- Standard length of cable is 305 meters (1000ft)

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.

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Electrical Performance

Freq	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	
in MHz	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

Insertion Loss

Return Loss

NEXT

Lenora
LIGHT TO INNOVATION
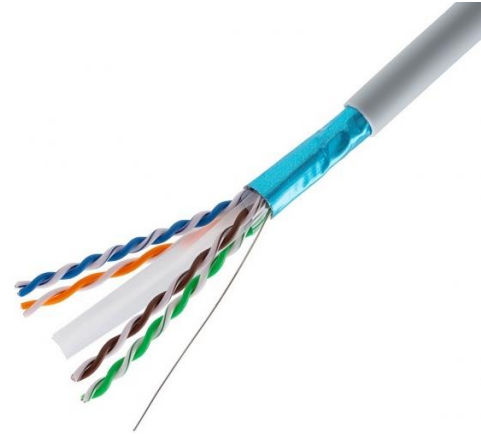
LanWave
Leads Communication

Category 6A F/UTP Cables
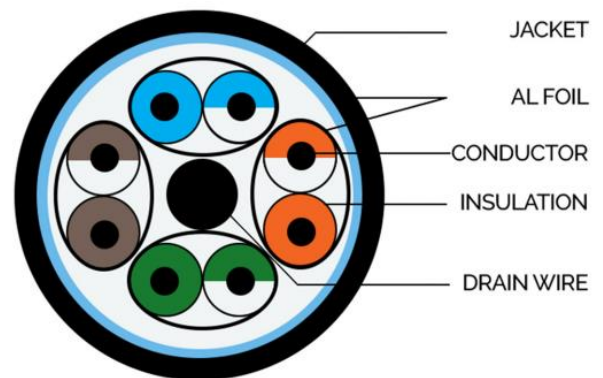
Operation Features

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)

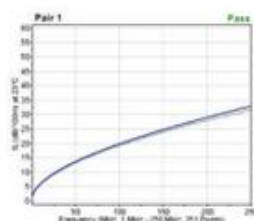## Mechanical Performance Test compliance

- 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
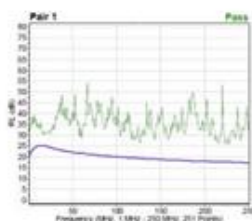- Standard Color of Sheath: Blue RAL 5015, other colors are available.

JACKET
AL FOIL
CONDUCTOR
INSULATION
DRAIN WIRE

Electrical Performance

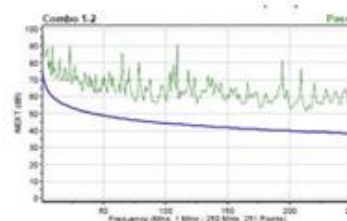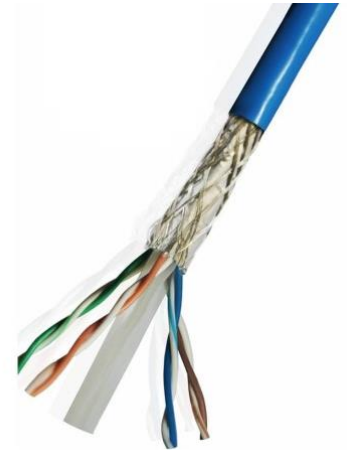| Freq	Attn in dB		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		PS ANEXT in dB		PS AACR-F in dB		RL in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	87.8	64.8	84.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	70.3	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

Insertion Loss

Return Loss

NEXT

Category 6A SF/UTP Cables
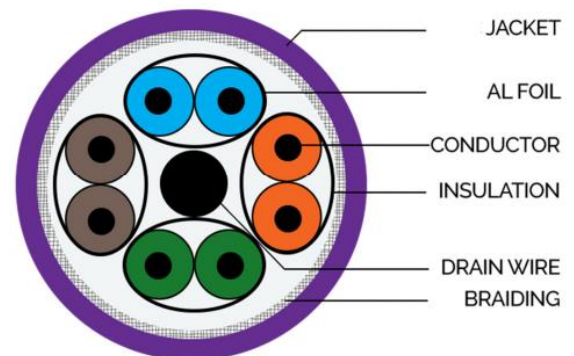
Operation Features

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

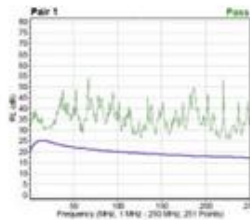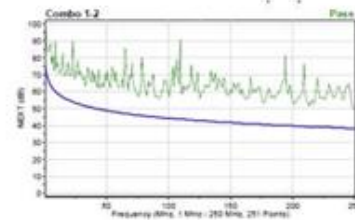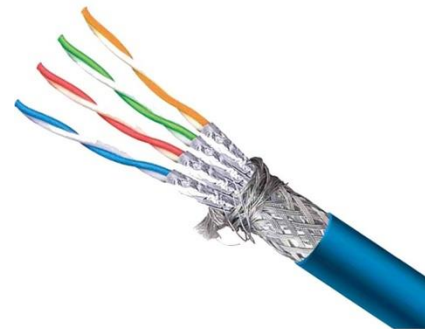| Freq	Attn in dB		NEXT in dB		PSNEXT in dB		ACR-F in dB		PS ACR-F in dB		PS ANEXT in dB		PS AACR-F in dB		RL in dB	
in MHz	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	2.1	2.1	74.3	79.3	72.3	77.3	67.8	87.8	64.8	84.8	67.0	90.0	67.0	76.7	20.0	26.0
4	3.8	3.8	65.3	70.3	63.3	68.3	55.8	75.8	52.8	72.8	67.0	90.0	66.2	75.9	23.0	29.0
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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
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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

Insertion Loss

Return Loss

NEXT

LanWave
Leads Communication

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 Cat7; 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 7 is an Ethernet cable standard that is often called Cat7. The standard supports the transmission of large amounts of data at high speeds of up to 600MHz. This augmented rating is twice that of regular Cat7 cable. Cat7 cables are comprised of pairs of twisted copper wire. The Category 7 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 7 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, Cat7 SF/UTP cables used in many backbones cabling solutions.

- SF/UTP CAT7 ethernet cable SF/UTP cat7 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 1.2 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 600 MHz and with guaranteed performance to 600 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class F, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed and
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 600 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 8.0mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.

LanWave
Leads Communication
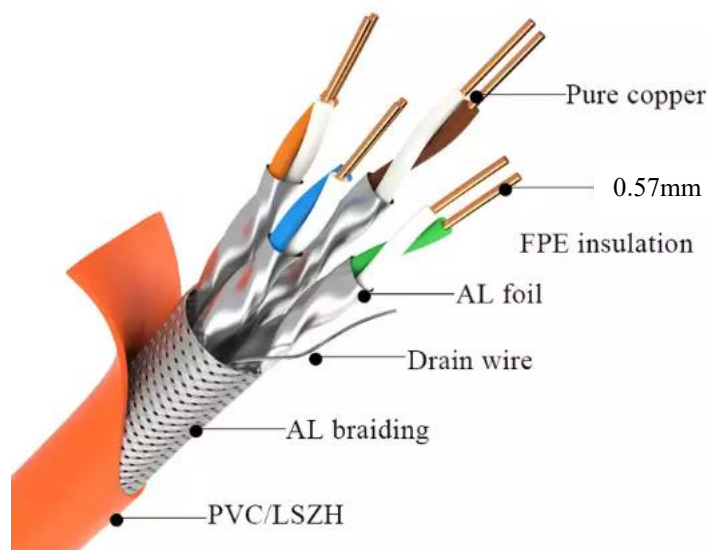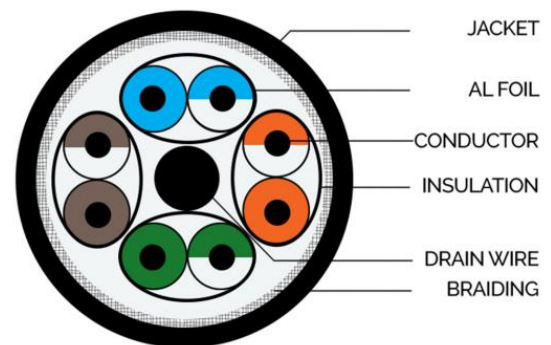
Electrical Performance

Frequency	Attenuation (dB/100m)		NEXT (in dB)		ACR (in dB)		PS-NEXT (in dB)		ACR-F (in dB)		PS-ACR-F (in dB)		Return Loss (in dB)	
(MHz)	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1.00	4.0	1.8	75.0	100.0	71.0	98.2	72.0	98.0	75.0	98.0	75.0	96.0	20.0	23.0
4.00	4.0	3.5	75.0	100.0	71.0	96.5	72.0	98.0	75.0	98.0	75.0	96.0	23.0	26.0
10.00	5.9	5.5	75.0	100.0	69.1	94.5	72.0	98.0	75.0	98.0	72.3	96.0	25.0	28.0
16.00	7.4	6.8	75.0	100.0	67.6	93.2	72.0	98.0	71.2	96.0	68.2	94.0	25.0	28.0
20.00	8.3	7.7	75.0	100.0	66.7	92.3	72.0	98.0	69.3	94.0	66.3	92.0	25.0	28.0
31.25	10.4	9.6	75.0	100.0	64.6	90.4	72.0	98.0	65.4	90.0	62.4	88.0	23.6	26.0
62.50	14.9	14.0	75.0	100.0	60.1	86.0	72.0	98.0	59.4	84.0	56.4	82.0	21.5	25.0
100.00	19.0	17.7	72.4	100.0	53.4	82.3	69.4	98.0	55.3	75.0	52.3	73.0	20.1	24.0
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250.00	31.0	29.0	66.4	94.0	35.5	65.0	63.4	91.0	47.3	66.0	44.3	64.0	17.3	22.0
300.00	34.2	32.1	65.2	92.0	31.1	59.9	62.2	88.0	45.8	54.0	42.8	52.0	17.3	20.0
600.00	50.1	45.5	60.7	90.0	10.6	44.5	57.7	86.0	39.7	54.0	36.7	52.0	17.3	20.0

Insertion Loss
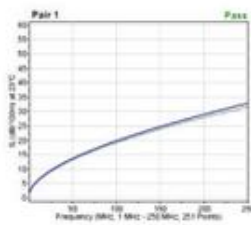
Return Loss
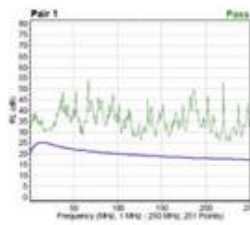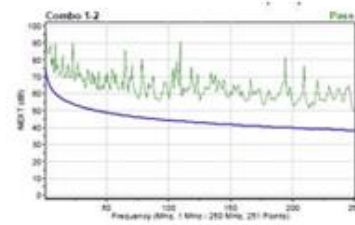
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  - ✓ UL Listed and
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- Bandwidth: Standard 1000 MHz
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- Outer Cable Diameter: 8.0mm ± 0.2 mm
- Conductors: Solid Bare Copper
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- Standard Color of Sheath: Blue RAL 5015, other colors are available.
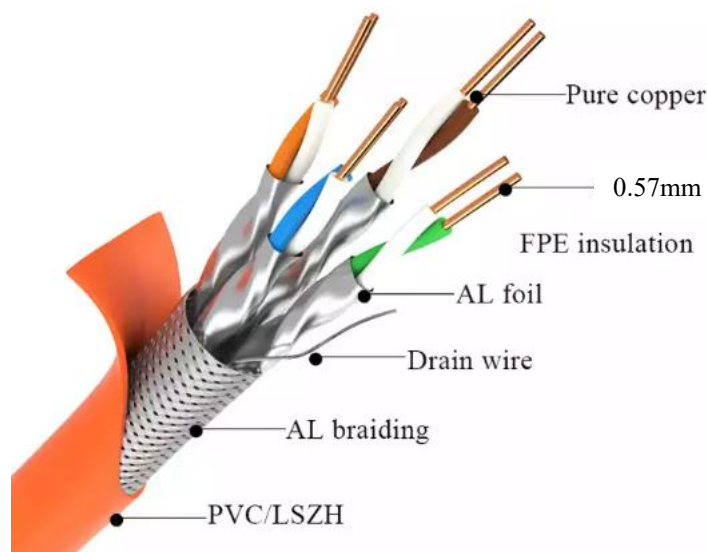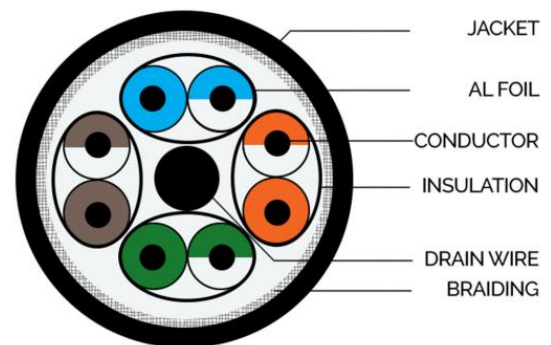
Electrical Performance

Frequency	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)	
(in MHz)	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

LanWave
Leads Communication

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 Cat8; 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 8 is an Ethernet cable standard that is often called Cat8. The standard supports the transmission of large amounts of data at high speeds of up to 2000MHz. This augmented rating is twice that of regular Cat8 cable. Cat8 cables are comprised of pairs of twisted copper wire. The Category 8 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 8 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, Cat8 SF/UTP cables used in many backbones cabling solutions.

- SF/UTP CAT8 ethernet cable SF/UTP cat8 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"
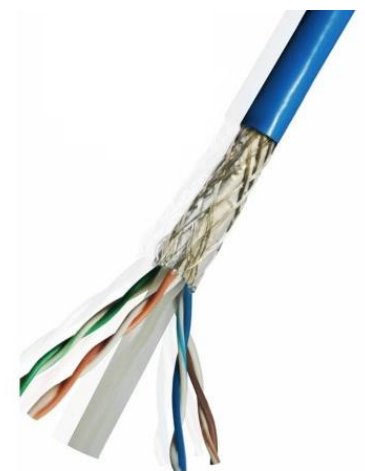
- Conductor 23AWG solid soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Application 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3, 25GBASE-T Ethernet IEEE802.3, 155 Mbit ATM and 1.2Gbit ATM
- Rating Temperature: 60°C
- 100% component test to guarantee 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 2000 MHz and with guaranteed performance to 2000 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class FA, Class I/II channel compliancy, IEC 611565
  - ✓ EN50173-1:2011, EN 50288
  - ✓ UL Listed and
  - ✓ RoHS
- Types: CM, CMR or CMP
- Bandwidth: Standard 2000 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 8.0mm ± 0.2 mm
- Conductors: Solid Bare Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.
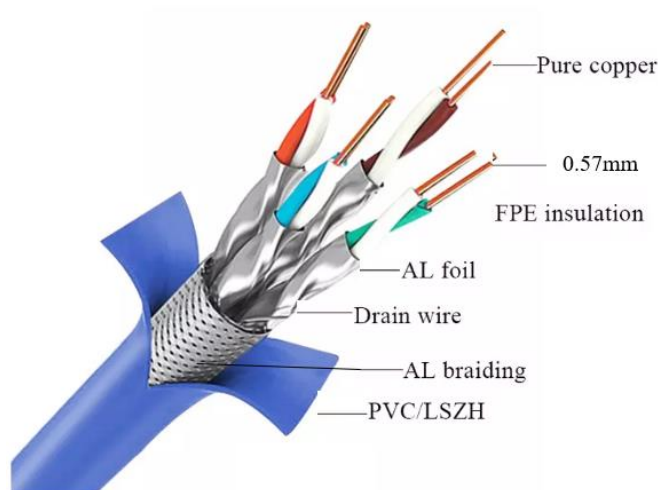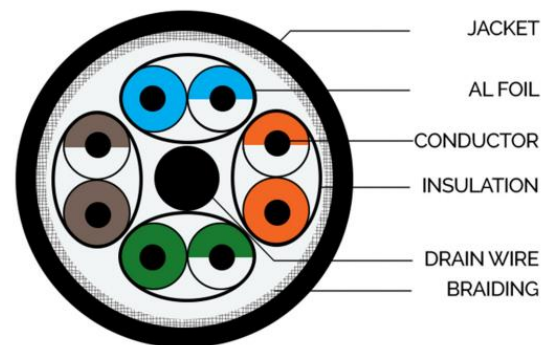
Electrical Performance

FREQ	IL		RL		NEXT		ACRF		TCL		Prop.Delay		PSANEXT		PSAACRF	
in MHz	in dB/100m		in dB		in dB		in dB		in dB		in ns/100m		in dB		in dB	
	Std. Req.	Max	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min	Std. Req.	Min
1	2.1	2.1	20.0	20.0	75.0	75.0	75.0	75.0	50.0	45.0	570	483	80.0	80.0	80.0	80.0
4	3.7	3.7	23.0	23.0	75.0	75.0	75.0	75.0	41.0	39.0	552	468	80.0	80.0	80.0	80.0
10	5.8	5.8	25.0	25.0	75.0	75.0	75.0	75.0	35.0	35.0	545	470	80.0	80.0	80.0	80.0
16	7.3	7.3	25.0	25.0	75.0	75.0	75.0	75.0	31.9	33.0	543	468	80.0	80.0	78.1	80.0
20	8.2	8.2	25.0	25.0	75.0	75.0	74.3	75.0	30.5	32.0	542	467	80.0	80.0	76.2	80.0
30	10.1	10.0	25.0	25.0	75.0	75.0	70.8	75.0	27.8	30.2	541	466	80.0	80.0	72.7	80.0
62	14.6	14.4	23.6	23.6	75.0	75.0	64.4	74.4	23.1	27.0	539	464	80.0	80.0	66.3	76.3
100	18.5	18.3	22.2	22.2	75.0	75.0	60.3	70.3	20.0	25.0	538	463	80.0	80.0	62.2	72.2
200	26.5	26.1	20.1	20.1	70.9	73.9	54.3	64.3	15.5	22.0	537	462	80.0	80.0	56.2	66.2
300	32.7	32.1	18.9	18.9	68.2	71.2	50.8	60.8	12.8	20.2	536	462	80.0	80.0	52.7	62.7
400	38.0	37.2	18.0	18.0	66.4	69.4	48.3	58.3	11.0	19.0	536	462	78.5	80.0	50.2	60.2
600	47.1	45.9	16.8	16.8	63.7	66.7	44.7	54.7	8.3	17.2	535	461	75.8	80.0	46.6	56.6
1000	61.9	59.9	15.2	15.2	60.4	63.4	40.3	50.3	7.0	15.0	535	461	72.5	80.0	42.2	52.2
1200	68.4	66.0	14.7	14.7	59.2	62.2	38.7	48.7	7.0	14.2	535	461	71.3	80.0	40.6	50.6
1500	77.2	74.2	14.0	14.0	57.8	60.8	36.8	46.8	7.0	13.2	535	461	69.9	79.9	38.7	48.7
1600	80.0	76.8	13.8	13.8	57.3	60.3	36.2	46.2	7.0	13.0	535	461	69.4	79.4	38.1	48.1
1800	85.4	81.8	13.4	13.4	56.6	59.6	35.2	45.2	7.0	12.4	535	461	68.7	78.7	37.1	47.1
2000	90.5	86.5	13.1	13.1	55.9	58.9	34.3	44.3	7.0	12.0	535	461	68.0	78.0	36.2	46.2

Ordering Information

Product Code	Description
LN-SFUC8x-4P-AWG23-xx	Category 8 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.

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 Cat6/6A, or Cat7/7A; 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. One of important infrastructure element is a Patch cables, also called Ethernet patch cords, are short lengths of Cat6/6A, or Cat7/7A shielded or unshielded twisted-pair used to connect active devices to networks. IT administrators also use patch cables to connect two or more "backbone" devices such as switch to switch, or patch panel to switch.
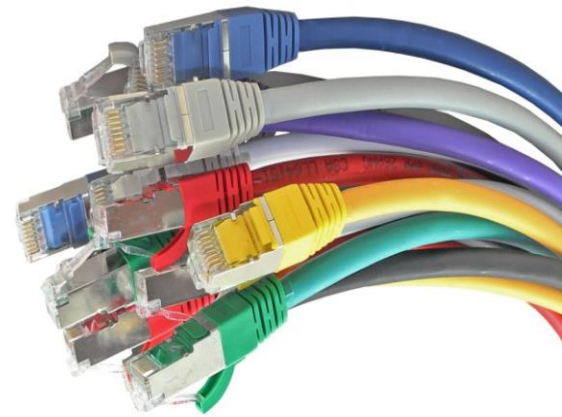
Application

Ethernet patch cables, also called Ethernet patch cords, are often used for short distances in offices and wiring closets of Cat6, Cat6A or Cat7, used to connect active devices to networks. In businesses, IT administrators also use patch cables to connect two or more "backbone" devices such as switch to switch, or patch panel to switch. Patch cables not only send data signals, but also carry PoE or Power over Ethernet to power a remote device such as a standalone Access Point.

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

Category 6 Patch Cords

Operation Features

The Category 6 ethernet patch cables are used to deliver a full end-to-end Class E solution, twisted pair stranded copper cable with a high-performance modular plug at each end available in several versions with cable types unshielded and shielded, color and length.

- Cable type options Cat6 U/UTP, F/UTP or SF/UTP
- Fulfills the performance requirements of Category 6, Class E (250MHz)
- RJ45 CAT6 Patch cord with RJ45 Connector and ethernet cable cat6 4 pairs copper twist wire patch cord
- Type EIA/TIA-568B
- Conductor 24AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Connector RJ45 8P8C golden type
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3 and 1000BASE-T Ethernet IEEE802.3
- Rating Temperature: 60°C
- 100% component test to guarantee the quality

Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested with guaranteed performance to 250 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class E, IEC 611565
  - ✓ EN50173-1:2011
  - ✓ UL Listed
  - ✓ RoHS
- Bandwidth: Standard 250 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.2mm ± 0.2 mm
- Conductors: Stranded Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.

Category 6A Patch Cords

Operation Features

The Category 6A ethernet patch cables are used to deliver a full end-to-end Class E solution, twisted pair stranded copper cable with a high-performance modular plug at each end available in several versions with cable types unshielded and shielded, color and length.

- Cable type options Cat6A U/UTP, F/UTP or SF/UTP
- Fulfills the performance requirements of Category 6A, Class E (500MHz)
- RJ45 CAT6A Patch cord with RJ45 Connector and ethernet cable cat6 4 pairs copper twist wire patch cord
- Type EIA/TIA-568B
- Conductor 24AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Connector RJ45 8P8C golden type
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3 and 10GBASE-T Ethernet IEEE802.3
- Rating Temperature: 60°C
- 100% component test to guarantee the quality

Mechanical Performance Test compliance

- Standards Specifications:
    - ✓ Tested 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
    - ✓ UL Listed
    - ✓ RoHS
- Bandwidth: Standard 500 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 6.2mm ± 0.2 mm
- Conductors: Stranded Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.

Category 7/7A Patch Cords

Operation Features

The Category 7 and 7A ethernet patch cables are used to deliver a full end-to-end Class F and FA solution, twisted pair stranded copper cable with a high-performance modular plug at each end available in several versions with cable types shielded, color and length.

- Cable type options Cat7 SF/UTP or Cat7A SF/UTP
- Fulfills the performance requirements of Category 7, Class F (600MHz) or Category 7A, Class FA (1000MHz)
- RJ45 Cat7 or Cat7A Patch cord with RJ45 Connector and ethernet cable cat7 or Cat7A 4 pairs copper twist wire patch cord
- Type EIA/TIA-568B
- Conductor 23AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Connector RJ45 8P8C golden type
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3 and 10GBASE-T Ethernet IEEE802.3
- Rating Temperature: 60°C
- 100% component test to guarantee the quality

Mechanical Performance Test compliance

- Standards Specifications:
  - ✓ Tested with guaranteed performance to 600 MHz or 1000 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class F/FA, IEC 61076-3-110
  - ✓ EN50173-1:2011,
  - ✓ UL Listed
  - ✓ RoHS
- Bandwidth: Standard 600 MHz for Cat7 and 1000 MHz for Cat7A
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 8.0mm ± 0.2 mm
- Conductors: Stranded Copper
- Outer Jacket: PVC or LSZH
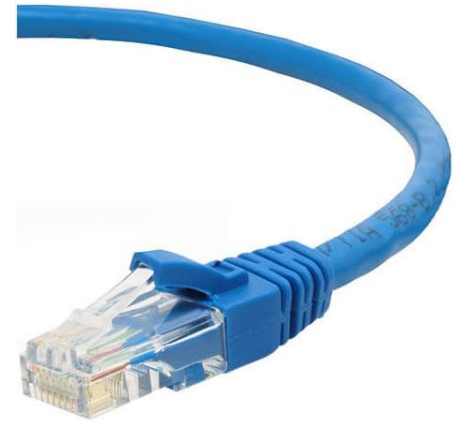- Standard Color of Sheath: Blue RAL 5015, other colors are available.

Category 8 Patch Cords

Operation Features

The Category 8 ethernet patch cables are used to deliver a full end-to-end Class F/FA solution, twisted pair stranded copper cable with a high-performance modular plug at each end available in several versions with cable types shielded, color and length.

- Cable type options Cat8 SF/UTP
- Fulfills the performance requirements of Category 8, Class FA (2000MHz)
- RJ45 Cat8 Patch cord with RJ45 Connector and ethernet cable cat 8 4 pairs copper twist wire patch cord
- Type EIA/TIA-568B
- Conductor 23AWG Stranded soft circle twisted bare copper wire
- Jacket PVC or LSZH
- Connector RJ45 8P8C golden type
- Application 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3 and 25/40GBASE-T Ethernet IEEE802.3
- Rating Temperature: 60°C
- 100% component test to guarantee the quality

Mechanical Performance Test compliance

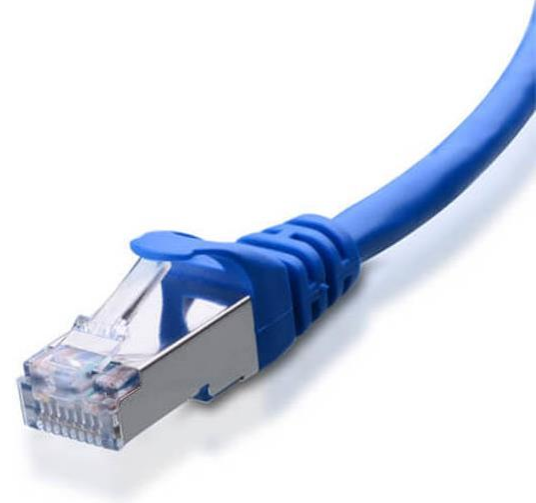- Standards Specifications:
  - ✓ Tested with guaranteed performance to 2000 MHz
  - ✓ TIA/EIA-568-C.2, TIA/EIA-568.2-D
  - ✓ ISO/IEC 11801 Class F/FA, IEC 61076-3-110
  - ✓ EN50173-1:2011,
  - ✓ UL Listed
  - ✓ RoHS
- Bandwidth: Standard 2000 MHz
- Conductor Diameter: 0.57±0.02
- Outer Cable Diameter: 8.0mm ± 0.2 mm
- Conductors: Stranded Copper
- Outer Jacket: PVC or LSZH
- Standard Color of Sheath: Blue RAL 5015, other colors are available.

Introduction

A keystone jack is a female connector used in data communications, the jack is usually mounted in a wall plate or patch panel. A keystone plug is the matching male connector, usually attached to the end of a cable or cord. A principal advantage of keystone connectors is their versatility, several types of keystone jack can be mounted on a single patch panel. They are available in unshielded and shielded forms based on Cat6/6A, or Cat7/7A, and can accommodate cords and cables having various numbers of conductors. Keystone jacks are an important component in expansive local area networks that make use of patch panels and wall plates. It's a female connector for connecting different types to the wider network that are designed to snap in to modular wall plates and patch panels. The name comes from them looking like an architectural keystone, and they improve the versatility of patch panels by giving administrators fine control over the types of connections that are used in modular patch panels for more varied network connections

Application

Keystone jacks RJ45 ranges of Cat6, Cat6A, Cat7 or Cat7A, with 90 degrees to 180 degrees, krone to 110, and standard keystone jacks to tool-free KSJs. All keystone jacks have a snap-in feature that allows them to be mounted on a variety of structured cabling components such as wall plates, faceplates, surface mounting boxes, and blank panels. We also have Ethernet jacks with colored plates for color-coding and those with shutters for dust prevention. We offer a full range of customized keystone jacks.

- Ethernet Networking
- Computer Networking Project
- Audio & Data Transmission
- Digital Networking
- Broadband Networking Communication
- Data Centers
- Surface mounting boxes
- Network Faceplates
- Network Patch Panels

Category 6 keystone jack

Operation Features

The Category 6 ethernet RJ45 keystone jacks are available in several versions such Cat6 U/UTP, F/UTP or SF/UTP, 90 degrees to 180 degrees, although keystone jacks are primarily used to offer RJ45 Ethernet connectivity, there are a wide array of different connection options for compatible patch panels. They include standard patch panel offerings like RJ45 Ethernet with various speed and shielding support.

- Keystone Jack type options Cat6 U/UTP, F/UTP or SF/UTP
- Standards EIA/TIA-568A and EIA/TIA-568B
- Compatible with T568B and optional T568A wiring schemes
- Contact Compatibility accommodates 22 To 24 AWG Solid
- Connector RJ45 8P8C golden type, tested with guaranteed performance to 250 MHz
- Compatible with 24-port applications in 1U
- Easily snap in and out of patch panel, and surface boxes or other application
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3 and 1000BASE-T Ethernet IEEE802.3
- 100% component test to guarantee the quality
- UL Certified & RoHS Compliant

Mechanical Performance Test compliance

- Standards Specifications: TIA/EIA-568-C.2, TIA/EIA-568.2-D (T568A & T568B), ISO/IEC 11801 Class E, ANSI/TIA-1096-A, EN50173-1:2011
- Insulation Resistance: 500 MΩ
- Material: ABS UL94V-0 material
- Operation Temperature: -10 to +60°C
- Storage Temperature: -40°C to +70°C

Cat6 U/UTP Keystone Jack

Cat6 F/UTP Keystone Jack

Cat6 SF/UTP Keystone Jack

Category 6A keystone jack

Operation Features

The Category 6A ethernet RJ45 keystone jacks are available in several versions such Cat6A U/UTP, F/UTP or SF/UTP, 90 degrees to 180 degrees, although keystone jacks are primarily used to offer RJ45 Ethernet connectivity, there are a wide array of different connection options for compatible patch panels. They include standard patch panel offerings like RJ45 Ethernet with various speed and shielding support.

- Keystone Jack type options Cat6A U/UTP, F/UTP or SF/UTP
- Standards EIA/TIA-568A and EIA/TIA-568B
- Compatible with T568B and optional T568A wiring schemes
- Contact Compatibility accommodates 22 To 24 AWG Solid
- Connector RJ45 8P8C golden type, tested with guaranteed performance to 500 MHz
- Compatible with 24-port applications in 1U
- Easily snap in and out of patch panel, and surface boxes or other application
- Application 10BASE-T Ethernet IEEE802.3, 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3 and 10GBASE-T Ethernet IEEE802.3
- 100% component test to guarantee the quality
- UL Certified & RoHS Compliant

Mechanical Performance Test compliance

- Standards Specifications: TIA/EIA-568-C.2, TIA/EIA-568.2-D (T568A & T568B), ISO/IEC 11801 Class E, ANSI/TIA-1096-A, EN50173-1:2011
- Insulation Resistance: 500 MΩ
- Material: ABS UL94V-0 material
- Operation Temperature: -10 to +60°C
- Storage Temperature: -40°C to +70°C

Cat6A U/UTP Keystone Jack **Cat6A F/UTP Keystone Jack** **Cat6A SF/UTP Keystone Jack**

Category 7/7A/8 keystone jack

Operation Features

The Category 7/7A/8 ethernet RJ45 keystone jacks are available in several versions such Cat7 SF/UTP, Cat7A SF/UTP or Cat8 SF/UTP, 90 degrees to 180 degrees, although keystone jacks are primarily used to offer RJ45 Ethernet connectivity, there are a wide array of different connection options for compatible patch panels. They include standard patch panel offerings like RJ45 Ethernet with various speed and shielding support.

- Keystone Jack type options Cat7 SF/UTP, Cat7A SF/UTP or Cat8 SF/UTP
- Standards EIA/TIA-568A and EIA/TIA-568B
- Compatible with T568B and optional T568A wiring schemes
- Contact Compatibility accommodates 22 To 24 AWG Solid
- Connector RJ45 8P8C golden type, tested with guaranteed performance to 600 MHz, 1000 MHz or 2000 MHz
- Compatible with 24-port applications in 1U
- Easily snap in and out of patch panel, and surface boxes or other application
- Application 100BASE-T Ethernet IEEE802.3, 1000BASE-T Ethernet IEEE802.3, 10GBASE-T Ethernet IEEE802.3 and 25GBASE-T Ethernet IEEE802.3
- 100% component test to guarantee the quality
- UL Certified & RoHS Compliant

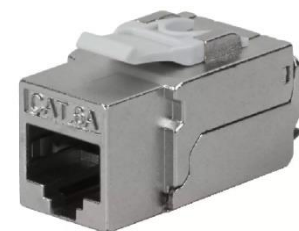## Mechanical Performance Test compliance

- Standards Specifications: TIA/EIA-568-C.2, TIA/EIA-568.2-D (T568A & T568B), ISO/IEC 11801 Class F/FA, ANSI/TIA-1096-A, EN50173-1:2011
- Insulation Resistance: 500 MΩ
- Material: ABS UL94V-0 material
- Operation Temperature: -10 to +60°C
- Storage Temperature: -40°C to +70°C

Cat7 SF/UTP Keystone Jack

Cat7A SF/UTP Keystone Jack

Cat8 SF/UTP Keystone Jack

Introduction

Patch panels bundle multiple network ports together to connect incoming and outgoing lines including those for local area networks. When patch panels are part of a LAN, they can connect computers to other computers and to outside lines. Those lines, allow LANs to connect to local area networks or to the Internet. To arrange circuits using a patch panel, you simply plug and unplug the appropriate patch cords. Troubleshooting problems are simplified with patch panels since they provide a single location for all input jacks.

Blank Patch Panels for 24 port 0.5U or 1U and 48 port 1U or 2U keystone jacks, also called Empty Patch Panels, are RoHS and CE compliant, blank patch panels are compatible with Cat5e, Cat6 and Cat6A keystone jacks and inline couplers. With 150 mm electroplating cable management, the blank panels optimize grounding function that is easier to switch the cables and prevents from unintended disconnection and damage.

Application

Blank Patch Panels 24 Port or 48 Ports is support bar and Shutter or non-shutter Keystone Jack Panel With grounding wire 24 cable ties and 4 screws, empty patch panel with shutter is suitable for being installed cat.5e and cat.6 and cat.6a keystone jacks or couplers. The design of snap-in structure makes you install and unload the module easily. The label and inlaid marks are available for the identification of cabling management. You can write the number or words which is the better way for organizing your patch cords, our standard package is not including the module. We have various keystone jacks and in-line couplers that you can select.

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

Operation Features

The Blank Patch Panels are available in several versions is compatible with Cat5e, Cat6 and Cat6A keystone jacks and inline couplers

- Empty Patch Panel 0.5U or 1U 24 ports and 1U or 2U 24 ports
- Available to fit with cat5e, 6, 6A RJ45 keystone Jacks
- Available Snap-in Shutter or non-shutter
- Available in straight or angled patch panel
- Cable Manager bar
- Panel Body SPCC 1.5mm Cold Rolled Steel material
- Rating Temperature: 60°C
- 100% component test to guarantee the quality
- Available color RAL 9004 (black) or RAL7035 (grey)

Mechanical Performance Test compliance

- Adaptor capacity: 24 or 48 Ports not including modules
- Entry ports: cable manager from back
- Panel Material: SPCC Cold Rolled Steel material
- Plastic Part Material: ABS UL94V-0 material
- Size (L×W×H): 482x17x22mm (05U)
             482x17x44mm (1U)
             482x17x88mm (2U)
- Operation Temperature: -10 to +60°C

Introduction

Network faceplate is a kind of cabling accessories, which applies to the cabling sub-system in network, and it is suitable for installing multi-type modules. Its main function is to fix the module and protect the cable at the data interface, which acts as a shield. In all network system, faceplate is not a key-feature accessory, but it is one of surface accessories, it plays a role of good-looking and connection in the overall cabling effect.

British Shuttered or American Faceplates are plastic covers that secure over network socket back boxes and switches. They protect wired connections, enhancing home and workplace safety. They are easy to install (screw, clip, push, or snap-fit into place) or remove. They are tight-fitting, giving a cleaner look. We have British and American faceplates for different intended functions. We provide a variety of designs and appearance, increasing the appeal and aesthetic looks of your network communication.

Application

The typical UK standard wall plate is 86mm*86mm or US standard wall plate is 114mmx70mm in dimension are used in many countries including European or USA. It is a popular ABS network cable faceplate that typically has a smart, glossy finish. Most Europeans value its customizable aspect for wall Ethernet installations. Furthermore, they are widely used in residential and commercial areas for their stylish physique. UK and US style faceplate supports Cat5e/Cat6/Cat6A cables for high-speed data applications.

- Ethernet Networking
- Computer Networking Project
- Audio & Data Transmission
- Digital Networking
- Broadband Networking Communication
- residential and commercial areas

Operation Features

Network faceplate refers applied to the work area cabling subsystem, one of network products suitable for many types of modules installed. Network faceplate for cabling system, not the main product components affect performance, but in the entire wiring system, but it is one of the few exposed in the wall surface of the product, its performance and appearance directly affects the overall wiring Effect.

- The plate meets internationally accepted UK or US type standards.
- Plate surface design invisible screws, elegant, sleek design, matte surface design.
- Embedded frame, installation is very convenient.
- Using high-quality engineering plastics, Anti-collision/Flame retardant/Impact resistance.
- With a single-port, dual-port, four plate for selection
- Compatible with Cat5e, Cat6 and Cat6A keystone jacks
- 100% component test to guarantee the quality
- Available color Ivory or White
- Available in Shuttered and without Shuttered Faceplate

Mechanical Performance Test compliance

- Adaptor capacity: 1, 2 or 4 Ports not including modules
- Faceplate Type: American US Faceplates
- Material: ABS UL94V-0 material
- Size (W×H): 114x70mm for US type and 86*86mm for UK type
- Operation Temperature: -10 to +60°C

LIGHT TO INNOVATION
Lenora

Structured Cabling Products Catalogue

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