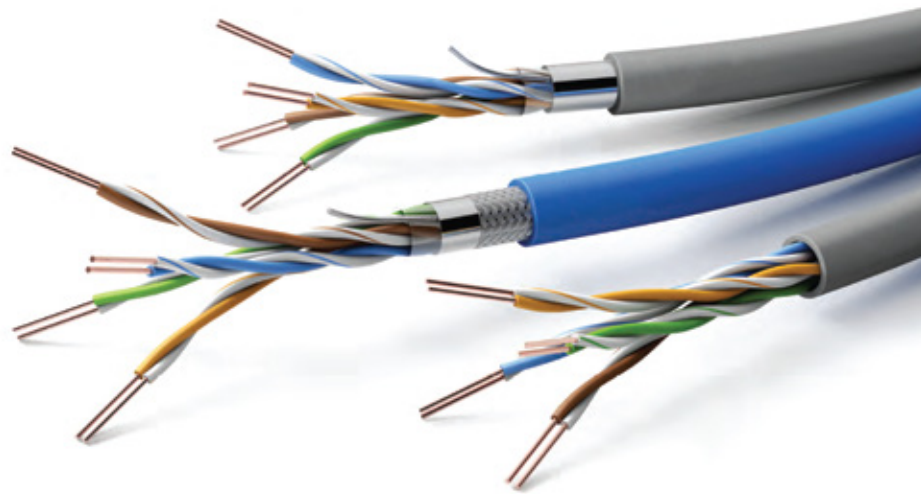


CONNECTING THE POWERED LIFE

# ES

ES-TECH  
INTERNATIONAL  
SOLUTION



## LAN CABLE Local Area Network Cable

ES-TECH International is a technology company specialized in providing solutions for communication & Infrastructure.

Delivering proactive and proven solutions and services that help networks around the world. ES-TECH International provides solutions for broadcasting, broadband, network power and cables, especially optical/coaxial cable and comprehensive power solutions.

To keep pace with rapid changing market, ES-TECH International is expanding structured cable system/intelligence building system and network solution field by continuously developing new products through aggressive investment for R&D.

At the same time, ES-TECH International is developing new items by cooperating with Global Corporation, as well as developing its own brand to expand overseas market.

ES-TECH International will be always with you with state of the art solution which is your way to happiness.

# Introduction of Business

## ES-TECH International Solutions

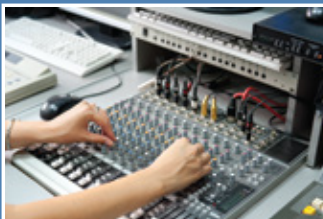
ES-TECH international is a technology company specialized in providing solutions for communication & Infrastructure. Delivering proactive and proven solutions and services that help networks around the world, ES-TECH international provides solutions for broadcasting, broadband, network power and cables, especially optical/coaxial cable and comprehensive power solutions.

ES-TECH INTERNATIONAL



### Fiber Optics

- Distribution Cable
- Breakout Cable
- Simplex and Duplex
- Drop Cable
- Multi Loose Tube Cable
- Adss Cable
- Ribbon Cable



### Broadcasting

- AV Cabling Solution
- SMPTE Camera Solution
- AV Patching Solution



### Networking

- IBDN cabling solution
- HFC Network solution
- Network Consulting



### Cables

- Coax Cable
- UTP Cable
- Coaxial Connector



### Power Supply

- Square Wave UPS/PS
- Sine Wave UPS/PS
- Rack UPS
- APD
- STS
- AVR



### Broadband

- FTTX Infra Structured
- FTTH Solution
- Device & Equipment



### Telco

- DATA Center
- Core Networks
- Mobile Networks
- Microwave Technology



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# Company Information

ES-TECH international specialized in providing broadcasting, communication, electronic solution.

ES-TECH international specialized in providing broadcasting, communication, electronic solution.

ES-TECH international provides most essential products which used in broadcasting & communication network service such as broad casting solution, broadband solution, power supply, network solution, cable solution etc.

To keep pace with rapid changing market, ES-TECH international is expanding structured cable system/intelligence building system and network solution field by continuously developing new products through aggressive investment for R&D.

Also developing new items by cooperating with Global Corporation, at the same time developing our own brand to expand overseas market.

ES-TECH international will do our best to provide best solutions & products to our customers.

---

## Vision

Company can last longer than 100 years

To provide superior quality consulting, services, and products that enable momentous improvements to our customers. We are committed to being the best through our professionalism and by keeping the interests of our clients first. We strive to develop innovative technology and fulfill our customers' needs.

### Mission statements

- 01\_ To continuously create customers value for the next 100 years.
- 02\_ continuously find a growing industry, as well as to improve business ability for all business area.
- 03\_ To create new markets by adopting globalization.
- 04\_ To form a challenging & creative company culture by demonstrating innovative & creative thinking.



ES-TECH INTERNATIONAL

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# Company History

The below is the footprint of ES-TECH international



Company Scene



Production Line



Production Line



Product Cables

## 2018

Nominated as Promising Small-Medium Enterprises for Export by 'Ministry of SMEs and Startups'  
Opening of an Office in New Delhi, India – Export Incubator

## 2017

Certification of "World-class product" from Ministry of Industry and Trade on Uninterruptible Power Supply for communication.  
Nominated as a Military Service Designated Company (Industry) by Military Manpower Administrations.

## 2016

Certification of Youth-friendly 'Small Hidden Champion'  
Certification of Gyeong-gi Province Job Recognition Excellent Company.  
Completion of new head office construction in Suwon Industrial Complex.  
Nominated as a Gyeong-gi Province Women Employment Excellent Company.

## 2015

Expand further for fiber optic cable / Launched ESCABLE brand  
Verification of greenhouse gas inventory. (carbon management system ISO14064)

## 2014

Selected the best company to work for by SMBA  
(Small and Medium Business Administration)

## 2013

Selected promising small & medium business by Gyeonggi-Do Provincial Government  
Submitted a new design for practical use to KIPO (Korean Intellectual Property Office)  
Submitted design patent of 'Hole kit' for communication cable distributor to KIPO (Korean Intellectual Property Office)

## 2012

Selected best small & medium business to work for  
Selected as 'a venture business' by small & medium business administration.  
Awarded design award by Gyeonggi province governor.

## 2010

Developed STS  
Developed ground mount enclosure  
Achieved the patent of 'dual power distribution equipment'.  
Achieved the patent for rack type server system power distribution equipment

## 2008

Developed CATV line UPS of SUN & MOON series.  
Developed small sized power supply for apartment building.  
Obtained 'annex research institute certification' by KOITA  
Obtained 'Innobiz certification' by small & medium business administration.

## 2007

Obtained 'small & medium size business certification' by administration  
Obtained ISO 9001:2000 certifications

## 2005

Converted to corporation (ES-TECH international Inc.)  
Developed APT (Auto Power Distributor)

## 2004

Developed CATV line UPS

## 2002

ES TECH NOLOGY was founded



# Contents

## Introduction of product

About ES-TECH	02
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## LAN CABLE Local Area Network Cable

### 4 Pairs cable

SF/UTP Cat.6A, F/UTP Cat.6, U/UTP Cat.6	06
SF/UTP Cat.5E, F/UTP Cat.5E, U/UTP Cat.5E	08

### 2 Pairs cable

U/UTP Cat.5E	10
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### Multi-Pairs cable

Cat.5E (25P), Cat.5 (25P ~ 128P)	12
Cat.3 (25P ~ 200P)	14

### Outdoor Lan cable

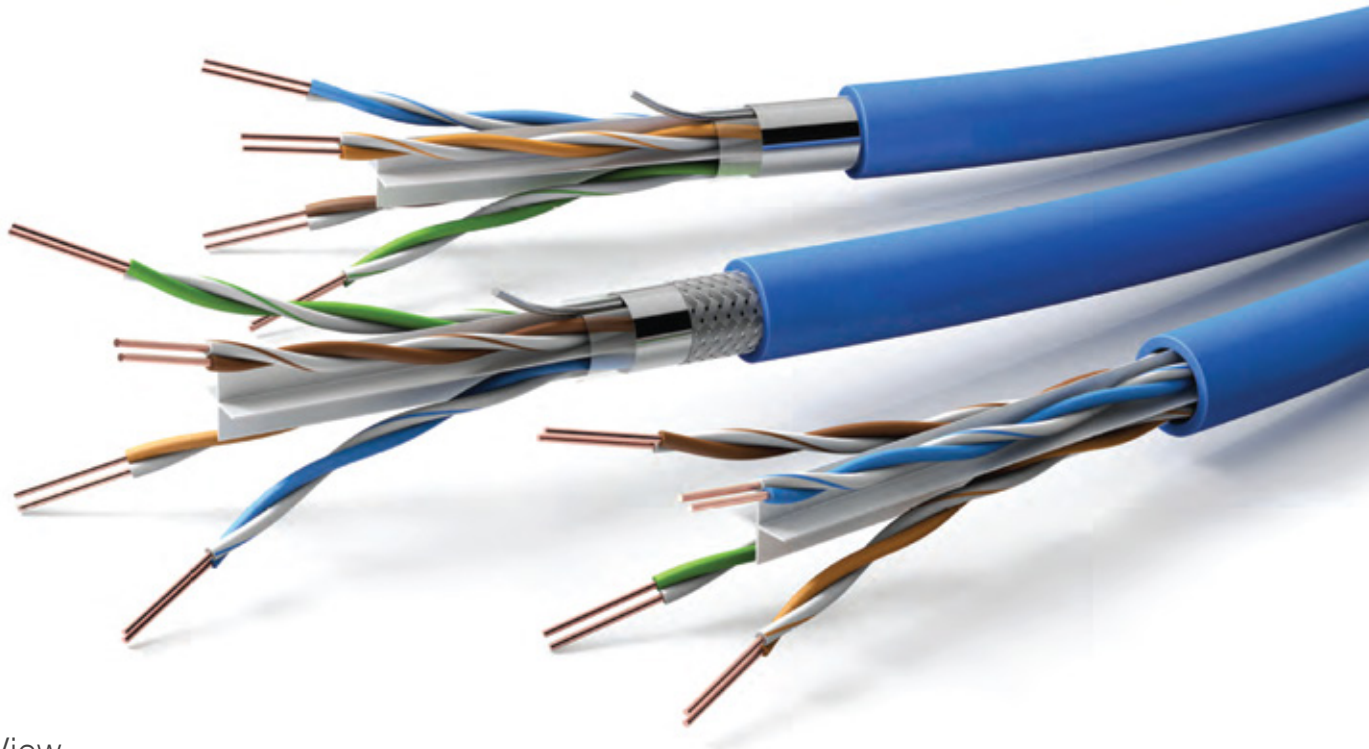
옥외 A형 4P	U/UTP with stranded steel wire/aramid yarn	16
옥외 B형 4P	U/UTP without stranded steel wire/aramid yarn	16
옥외 A형 2P	U/UTP with stranded steel wire/aramid yarn	17
옥외 B형 2P	U/UTP without stranded steel wire/aramid yarn	17

## 4 Pairs cable Local area network cable

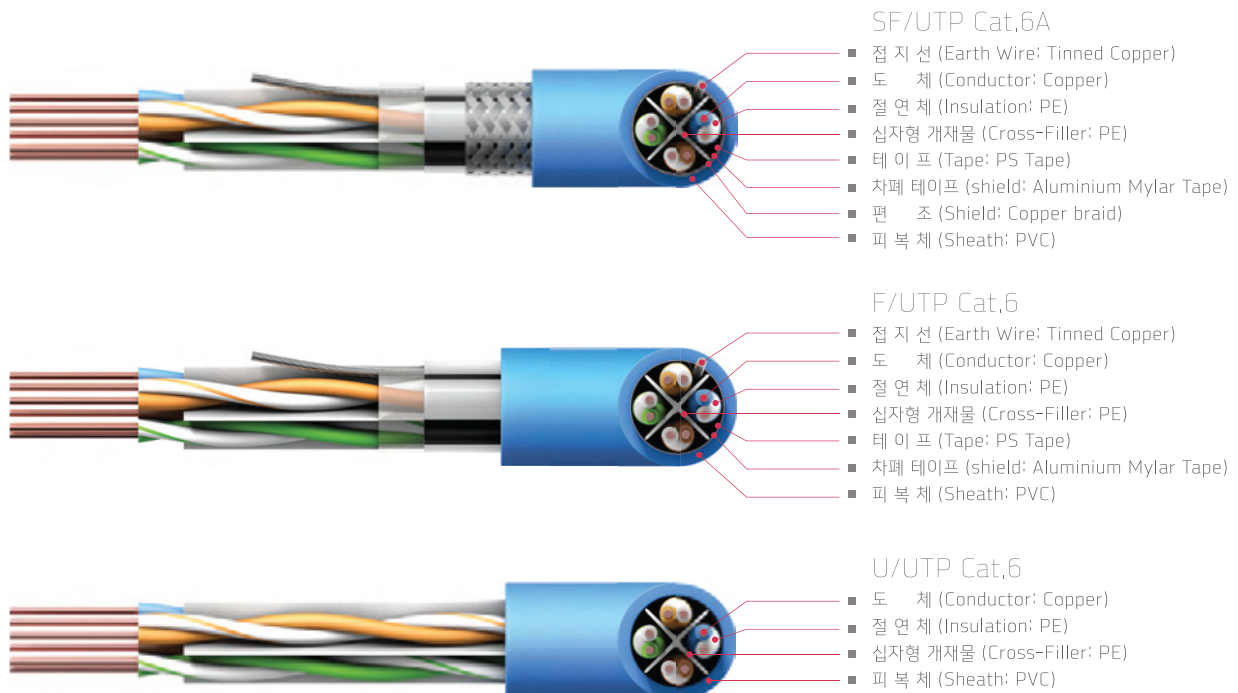
### SF/UTP Cat.6A, F/UTP Cat.6, U/UTP Cat.6

음성 및 데이터 전송용 케이블로 고속 신호 전송능력을 필요로 하는 옥내 수평 및 간선 배선망에 사용.

Suitable for the horizontal indoor or indirect election cable requiring the electric transmission of the sound and data with high speed.



### I Detail View



#### 4 Pairs cable SF/UTP Cat.6A, F/UTP Cat.6, U/UTP Cat.6

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	표 준 조 장 Standard Length	포 장 Packaging
SF/UTP Cat.6A	4	0.55 (23 AWG)	8.5	14.0	300m or 1000ft	Box or Reel
F/UTP Cat.6			7.0	12.2		
U/UTP Cat.6			6.5	12.0		

■ 난연등급: CM기준    ■ AWG: American Wire Gauge

competitiveness of ES – TECH

#### 적용규격

- ANSI / EIA / TIA-568,C  
- ISO / IEC 11801  
- UL 444  
- KS C 3342

#### 난연등급

- UL 1581 (CMX, CM)  
- UL 1666 (CMR)  
- IEC 60754, 61034(LSZH)

ES-  
TECH  
INTERNATIONAL

#### 4 Pairs cable SF/UTP Cat.6A, F/UTP Cat.6, U/UTP Cat.6

주 파 수 Frequency (MHz)	입력임피던스 Input Impedance (Ohms)	특성임피던스 Characteristic Impedance (Ohms)	반사손실 Return Loss(dB) Min.	감쇄량 Attenuatopn (dB/100m) Mix.	근단누화 NEXT(dB) Min.	근단누화전력합 PSNEXT (dB/100m) Min.	원단누화 ELFEXT (dB/100m) Min.	원단누화전력합 PSELFEXT (dB/100m) Min.
1	100±15	100±6	19.0	2.0	74.3	72.3	67.8	64.8
4	100±15	100±6	21.4	3.8	65.3	63.3	55.7	52.7
8	100±15	100±6	22.6	5.4	60.8	58.8	49.7	46.7
10	100±15	100±6	23.0	6.0	59.3	57.3	47.8	44.8
16	100±15	100±6	23.0	7.7	56.3	54.3	43.7	40.7
20	100±15	100±6	23.0	8.6	54.8	52.8	41.7	38.7
25	100±15	100±6	22.3	9.6	53.3	51.3	39.8	36.8
31.25	100±15	100±6	21.6	10.8	51.9	49.9	37.9	34.9
62.5	100±15	100±6	19.5	15.7	47.4	45.4	31.8	28.8
100	100±15	100±6	18.1	20.2	44.3	42.3	27.8	24.8
125	100±22	100±6	17.4	22.9	42.9	40.9	25.8	22.8
155.52	100±22	100±6	16.8	22.8	41.4	39.4	23.9	20.9
175	100±22	100±6	16.4	27.6	40.7	38.7	22.9	19.9
200	100±22	100±6	16.0	29.8	39.8	37.8	21.7	18.7
250	100±32	100±6	15.3	33.8	38.3	38.3	19.8	16.8

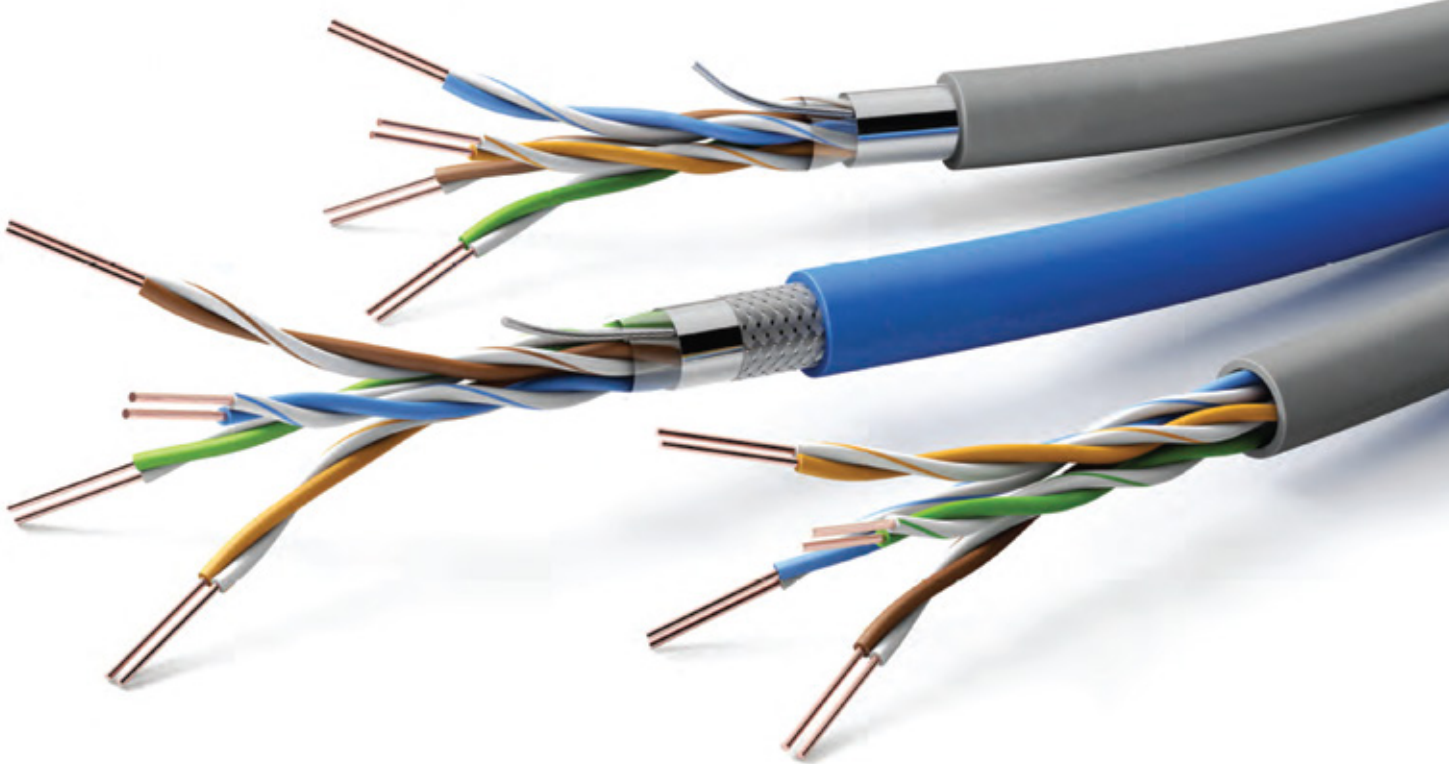
■ U/UTP Cat.6. 4P 기준 데이터. 옥내 수평 및 중심회선에만 적용. (Based on U/UTP Cat.6. Applicable for horizontal and backbone cables only)

## 4 Pairs cable Local area network cable

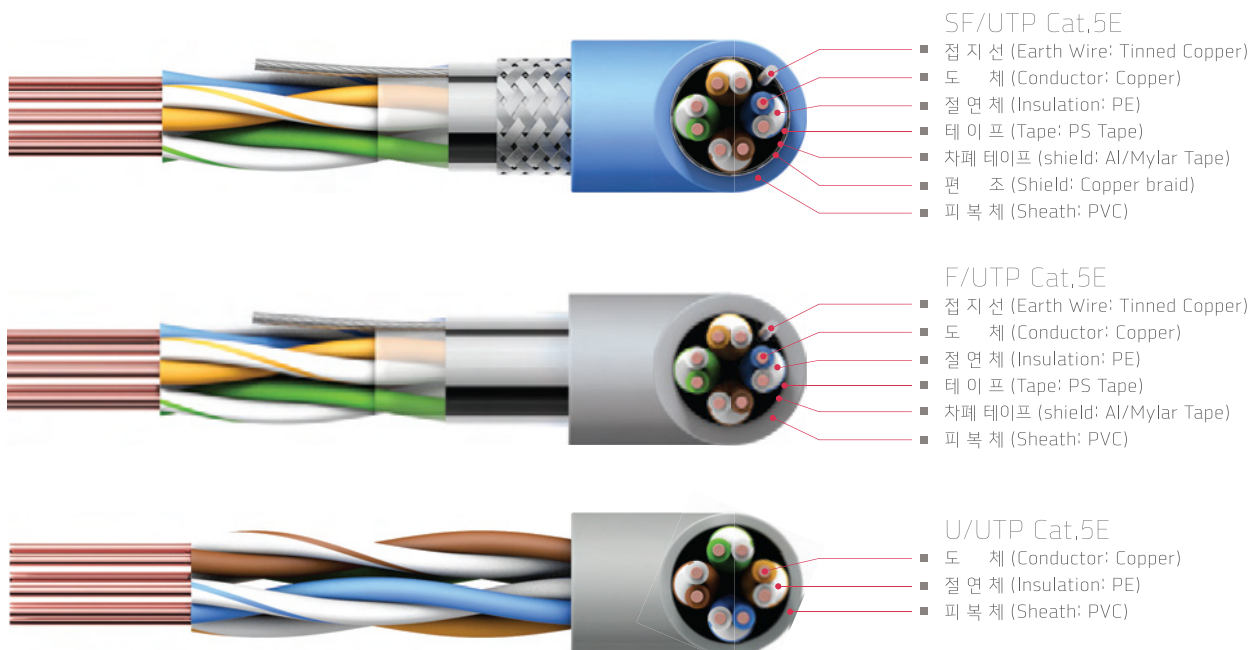
### SF/UTP Cat.5E, F/UTP Cat.5E, U/UTP Cat.5E

음성 및 데이터 전송용 케이블로 옥내 수평 및 간선 배선망에 사용.

Suitable for the horizontal indoor or indirect election cable requiring the electric transmission of the sound and data.



### Detail View



4 Pairs cable SF/UTP Cat.5E, F/UTP Cat.5E, U/UTP Cat.5E

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	표 준 조 장 Standard Length	포 장 Packaging
SF/UTP Cat.5E	4	0.50 (24 AWG)	7,0	18	300m or 1000ft	Box or Reel
F/UTP Cat.5E			6,0	15		
U/UTP Cat.5E			5,0	10		

— 난연등급: CM기준 — AWG: American Wire Gauge

competitiveness of ES – TECH

적용규격

- ANSI / EIA / TIA-568,C
- ISO / IEC 11801
- UL 444
- KS C 3342

난연등급

- UL 1581 (CMX, CM)
- UL 1666 (CMR)
- IEC 60754, 61034(LSZH)

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INTERNATIONAL

4 Pairs cable SF/UTP Cat.5E, F/UTP Cat.5E, U/UTP Cat.5E

주 파 수 Frequency (MHz)	반사손실 Return Loss(dB) Min,	감쇄량 Attenuatopn (dB/100m) Mix,	근단누화 NEXT(dB) Min,	근단누화전력합 PSNEXT (dB/100m) Min,	원단누화 ELFEXT (dB/100m) Min,	원단누화전력합 PSELFEXT (dB/100m) Min,
0,772	19,0	1,8	67,0	64,0	66,0	63,0
1	20,0	2,0	65,3	62,3	63,8	60,8
4	23,0	4,1	56,3	53,3	51,7	48,7
8	24,5	5,8	51,8	48,8	45,7	42,7
10	25,0	6,5	50,3	47,3	43,8	40,8
16	25,0	8,2	47,3	44,3	39,7	36,7
20	25,0	9,3	45,8	42,8	37,7	34,7
25	24,3	10,4	44,3	41,3	35,8	32,8
31,25	23,6	11,7	42,9	39,9	33,9	30,9
62,5	21,5	17,0	38,4	35,4	27,8	24,8
100	20,1	22,0	35,3	32,3	23,8	20,8

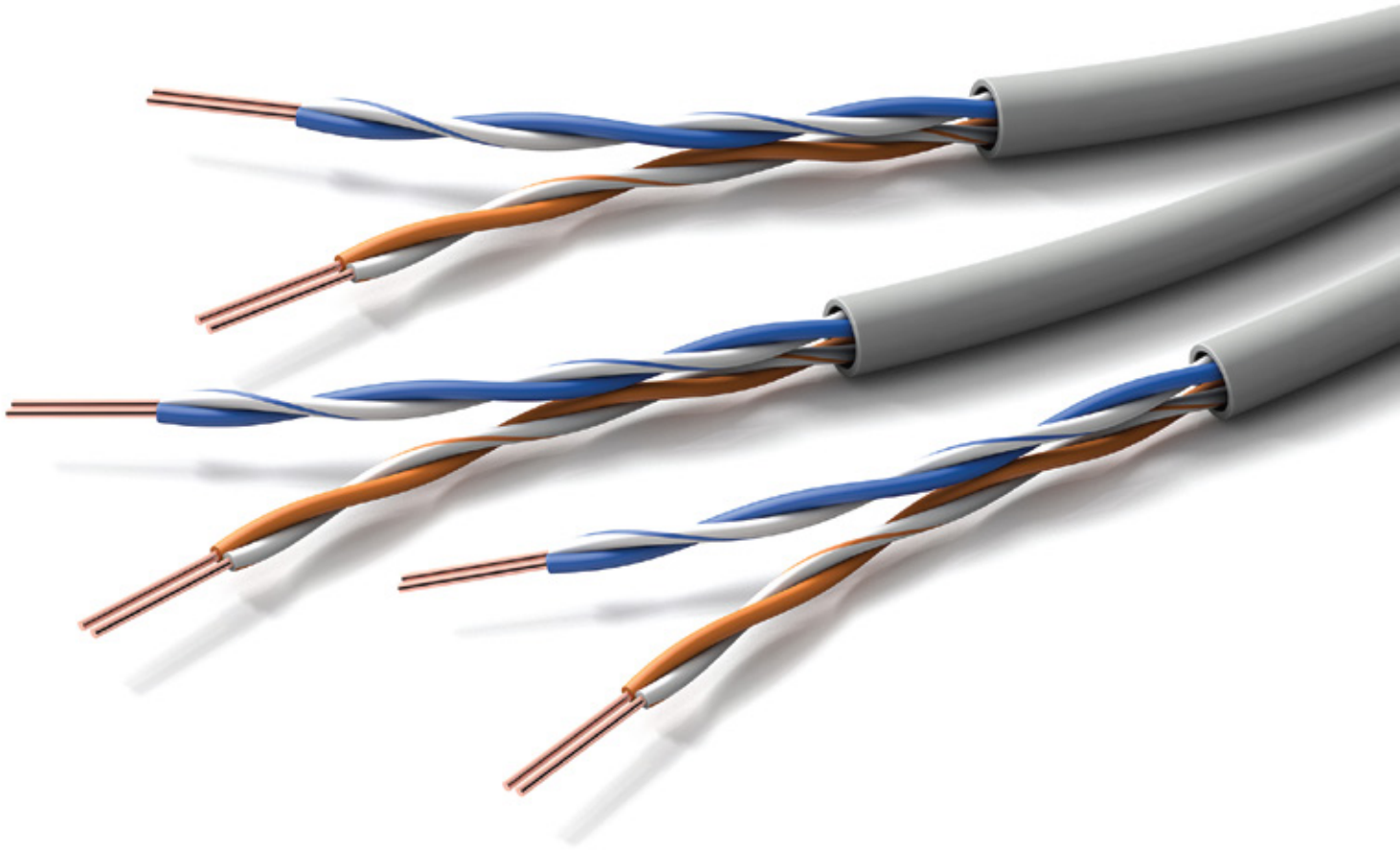
— U/UTP Cat.6, 4P 기준 데이터. 옥내 수평 및 중심화선에만 적용. (Based on U/UTP Cat.6, Applicable for horizontal and backbone cables only)

## 2 Pairs cable Local area network cable

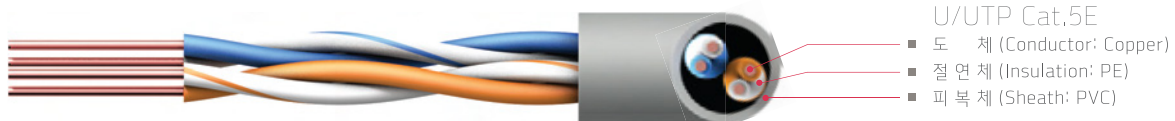
### U/UTP Cat.5E

음성 및 데이터 전송용 케이블로 옥내 수평 및 간선 배선망에 사용.

Suitable for the horizontal indoor or indirect election cable requiring the electric transmission of the sound and data.



### Detail View



2 Pairs cable U/UTP Cat.5E

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	표 준 조 장 Standard Length	포 장 Packaging
U/UTP Cat.5E	2	0,50 (24 AWG)	4,5	6	300m or 1000ft	Box

— 난연등급: CM기준 — AWG: American Wire Gauge

competitiveness of ES – TECH

적용규격

- ANSI / EIA / TIA-568,C
- ISO / IEC 11801
- UL 444
- KS C 3342

난연등급

- UL 1581 (CMX, CM)
- UL 1666 (CMR)
- IEC 60754, 61034(LSZH)

ES-  
TECH  
INTERNATIONAL

2 Pairs cable U/UTP Cat.5E

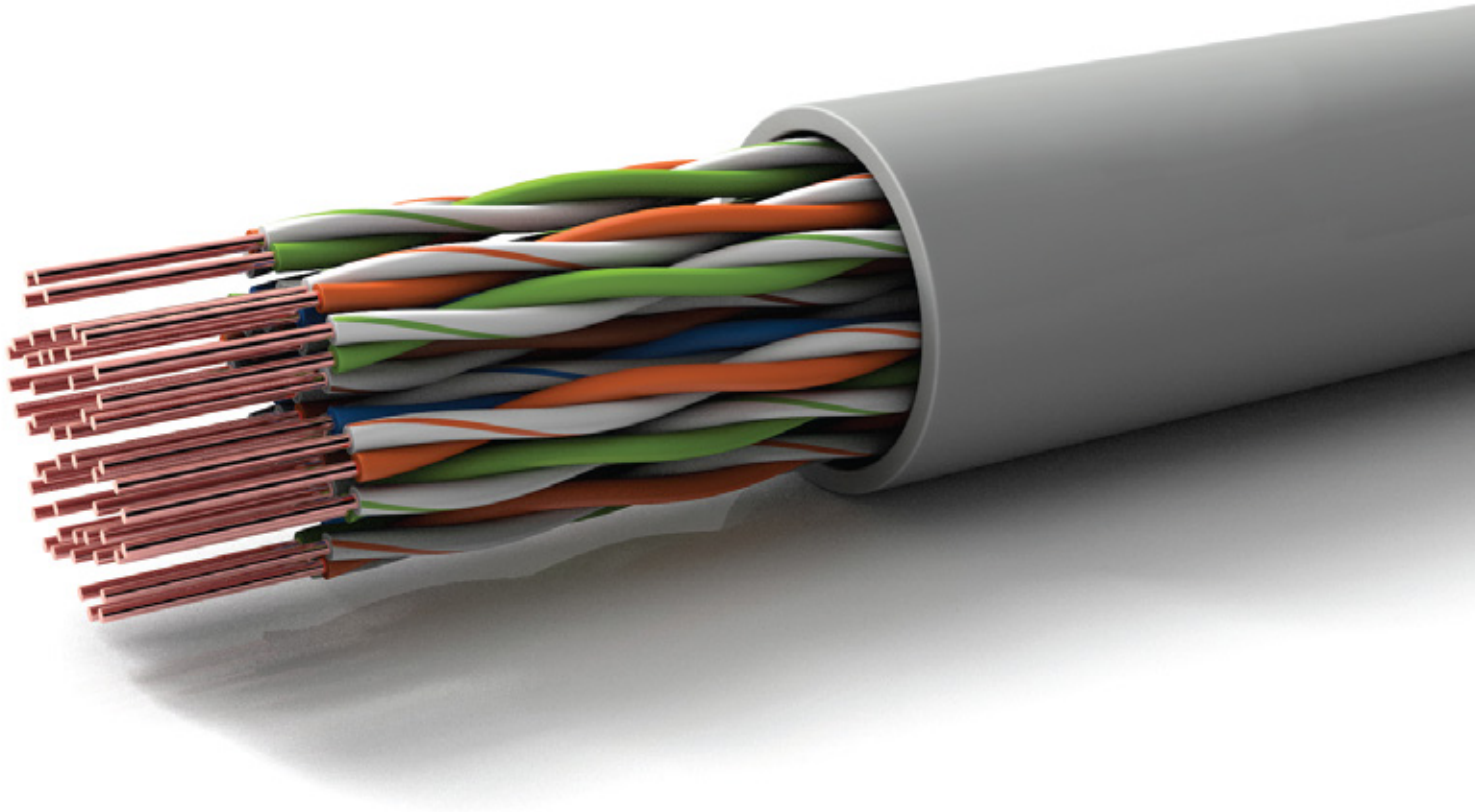
주 파 수 Frequenct (MHz)	반사손실 Return Loss(dB) Min,	감쇄량 Attenuatopn (dB/100m) Mix,	근단누화 NEXT(dB) Min,
0,772	-	1,8	64
1	23	2,0	62
4	23	4,1	53
8	23	5,8	48
10	23	6,5	47
16	23	8,2	44
20	23	9,3	42
25	22	10,4	41
31,25	21	11,7	39
62,5	18	17,0	35
100	16	22,0	32

## Multi-Pairs cable Local area network cable

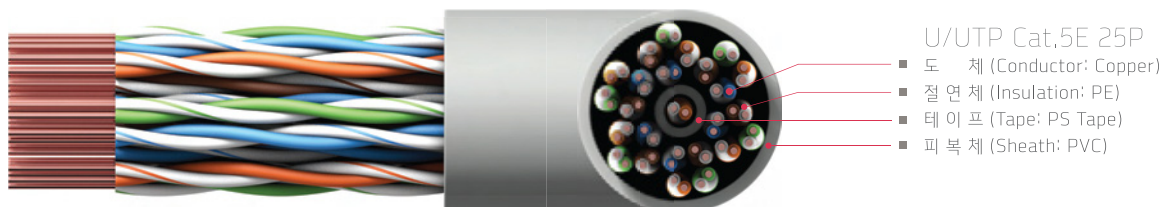
### Cat.5E (25P), Cat.5 (25P~128P)

음성 및 데이터 전송용 케이블로 옥내 수평 및 간선 배선망에 사용.

Suitable for the horizontal indoor or indirect election cable requiring the electric transmission of the sound and data.



### I Detail View



■ Multi-pairs cable Cat.5E (25P), Cat.5 (25P~128P)

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	포 장 Packaging
Cat.5E	25	0.5mm(24 AWG)	13.0	200	Drum
Cat.5	50	0.5mm(24 AWG)	20.0	380	
Cat.5	100	0.5mm(24 AWG)	26.0	810	
Cat.5	128	0.5mm(24 AWG)	28.0	900	

— 난연등급: CM기준 — AWG: American Wire Gauge

competitiveness of ES – TECH

적용규격

- ANSI / EIA / TIA-568,C  
- ISO / IEC 11801  
- UL 444  
- KS C 3342

난연등급

- UL 1581 (CMX, CM)  
- UL 1666 (CMR)  
- IEC 60754, 61034(LSZH)

ES-  
TECH  
INTERNATIONAL

■ Multi-pairs cable Cat.5E (25P), Cat.5 (25P~128P)

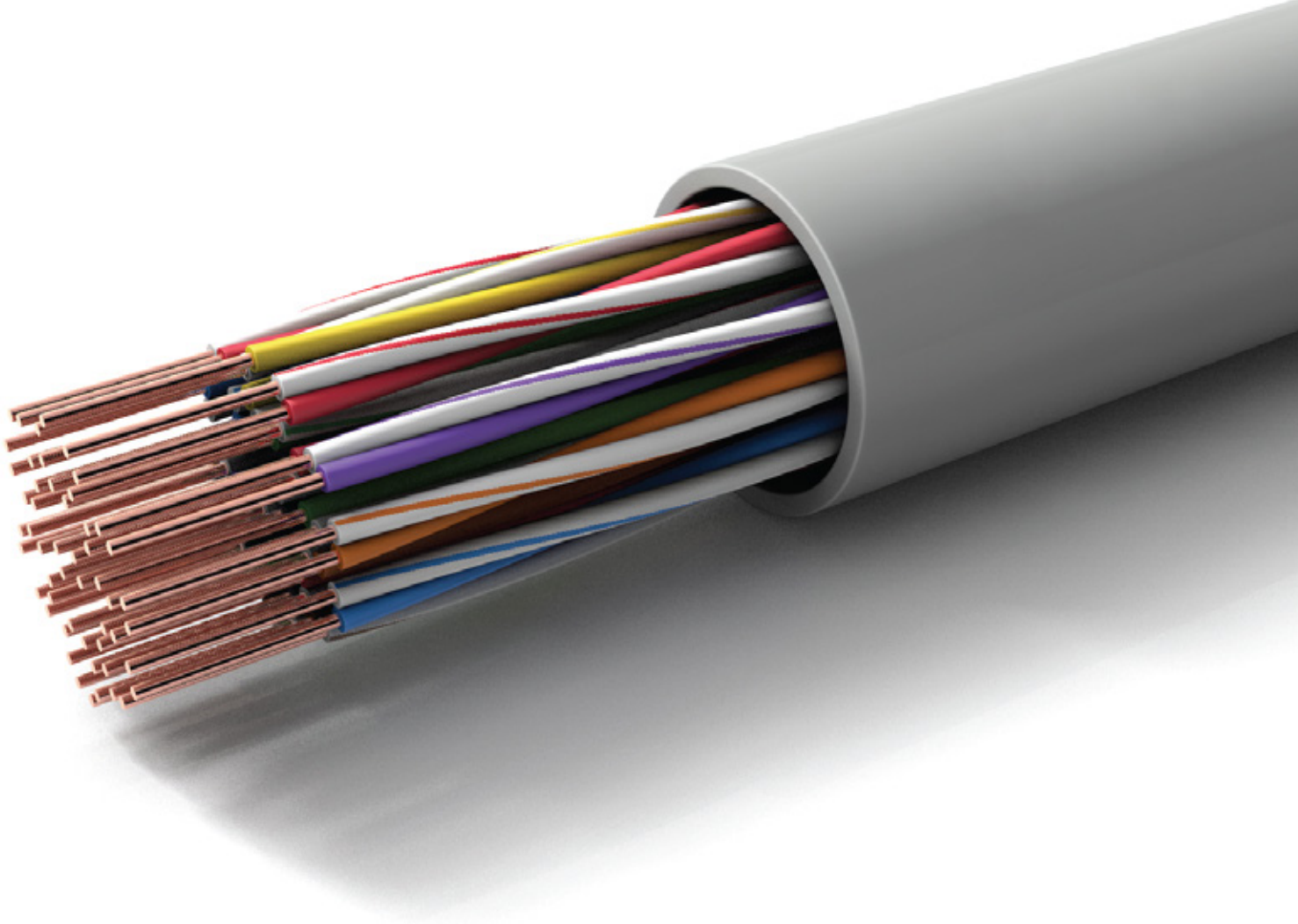
주 파 수 Frequency (MHz)	반사손실 Return Loss(dB) Min,	감쇄량 Attenuatopn (dB/100m) Mix,	근단누화 NEXT(dB) Min,
0.772	-	1.8	64
1	23	2.0	62
4	23	4.1	53
8	23	5.8	48
10	23	6.5	47
16	23	8.2	44
20	23	9.3	42
25	22	10.4	41
31.25	21	11.7	39
62.5	18	17.0	35
100	16	22.0	32

## Multi-Pairs cable Local area network cable

### Cat.3 (25P ~ 200P)

음성 및 데이터 전송용 케이블로 옥내 수평 및 간선 배선망에 사용.

Suitable for the horizontal indoor or indirect election cable requiring the electric transmission of the sound and data.



### I Detail View



### Multi-pairs cable Cat.3 (25P~200P)

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	포 장 Packaging
Cat.3	25	0.5mm(24 AWG)	12	170	Drum
	50	0.5mm(24 AWG)	14	300	
	75	0.5mm(24 AWG)	16	450	
	100	0.5mm(24 AWG)	21	570	
	150	0.5mm(24 AWG)	25	800	
	175	0.5mm(24 AWG)	27	900	
	200	0.5mm(24 AWG)	29	1050	

— 난연등급: CM기준 — AWG: American Wire Gauge

competitiveness of ES – TECH

#### 적용규격

- ANSI / EIA / TIA-568,C  
- ISO / IEC 11801  
- UL 444  
- KS C 3342

#### 난연등급

- UL 1581 (CMX, CM)  
- UL 1666 (CMR)  
- IEC 60754, 61034(LSZH)

ES-  
TECH  
INTERNATIONAL

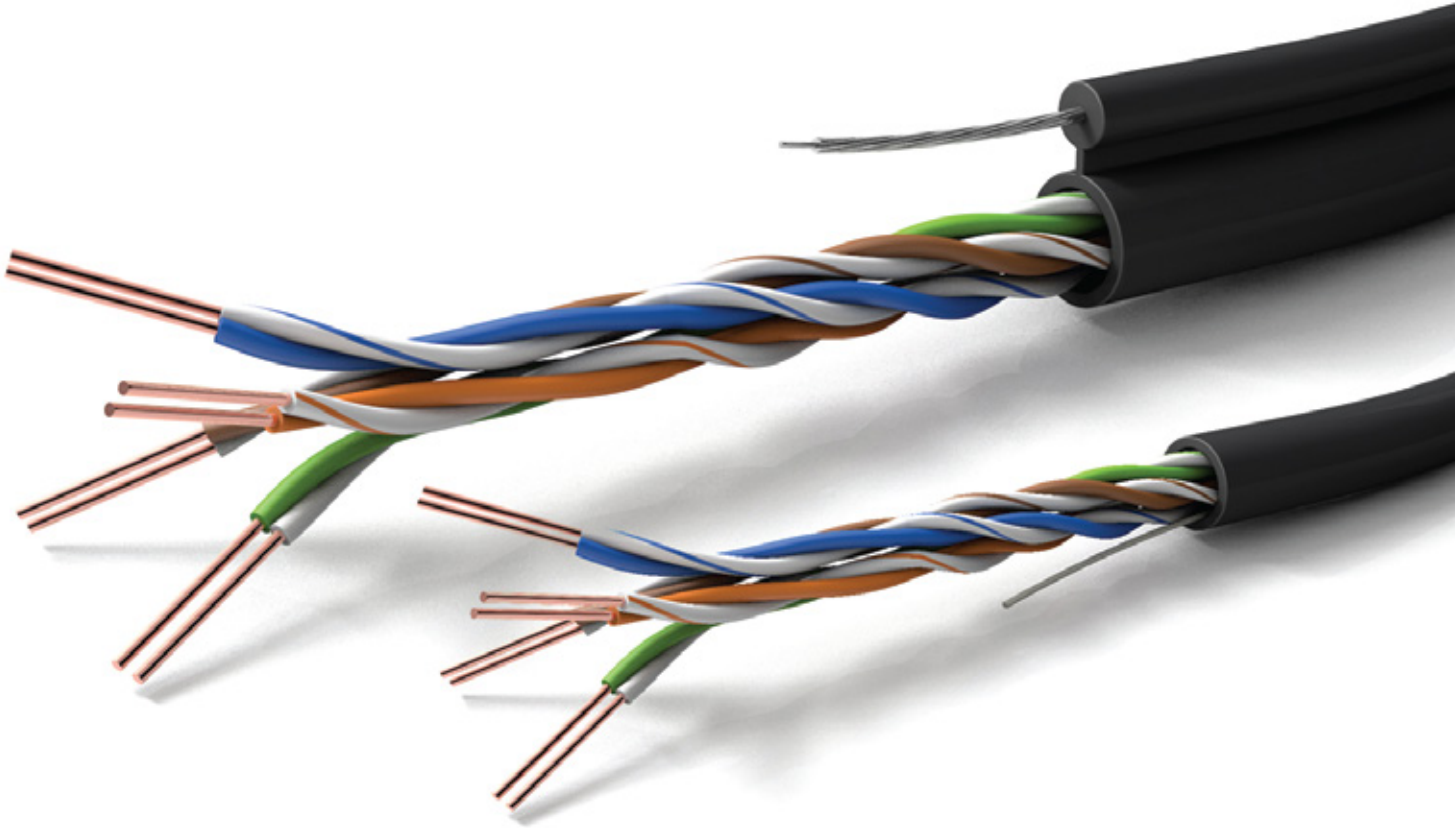
### Multi-pairs cable Cat.3 (25P~200P)

주 파 수 Frequency (MHz)	반사손실 Return Loss(dB) Min,	감쇄량 Attenuatopn (dB/100m) Mix,	근단누화 NEXT(dB) Min,
0.772	-	2,2	43
1	12	2,6	41
4	12	5,6	32
8	12	8,5	27
10	12	9,7	26
16	12	13,1	23

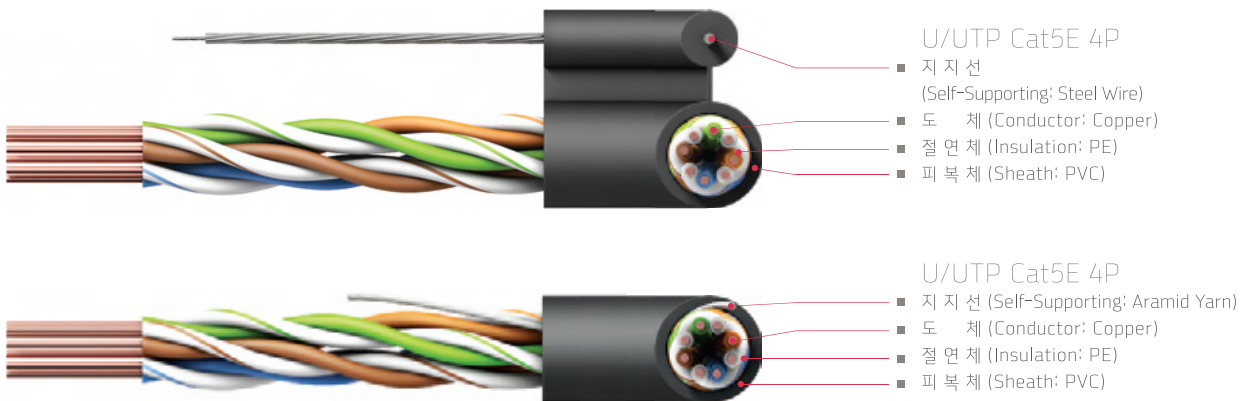
## Outdoor LAN cable

옥외 A형 4P (U/UTP 4P with self-supported for outdoor use)

옥외 B형 4P (U/UTP 4P without self-supported for outdoor use)



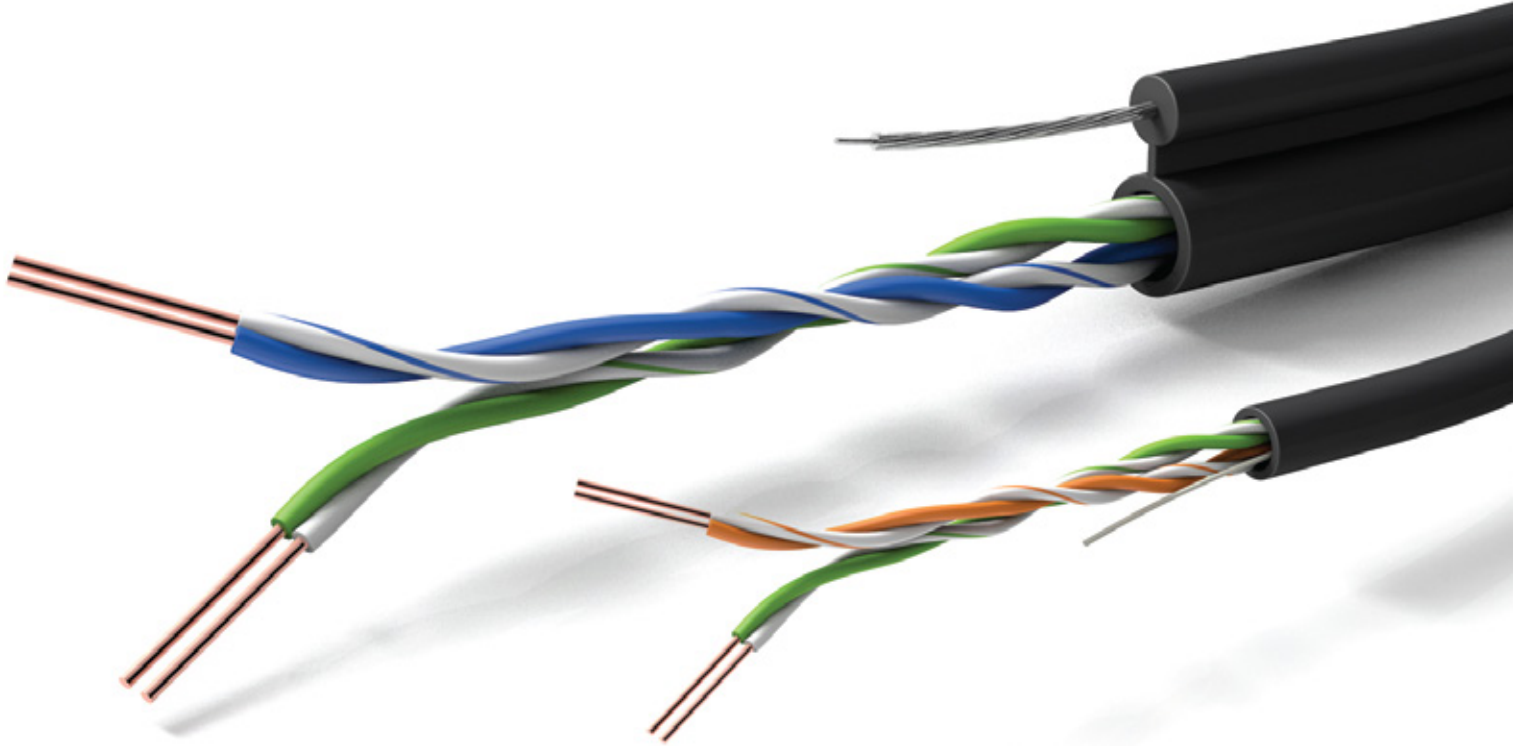
### Detail View



## Outdoor Lan cable

옥외 A형 2P (U/UTP 2P with self-supported for outdoor use)

옥외 B형 2P (U/UTP 2P without self-supported for outdoor use)



### Detail View



Outdoor Lan cable U/UTP ( CAT.5E 4P, 2P )

구 분 Item	페 어 수 Number of Pairs	도 체 경 Nominal Diameter of Wire (mm)	외 경 (약) Approx. Overall Diameter (mm)	중 량 (약) Approx. Weight (kg/km)	포 장 Packaging
LAN-CAT.5E/CM	1	24 AWG	4,0×7,3	9	Box
	2		4,5×7,3	11	
	4		6,0×7,3	15	

— KT 인증
     — 피복색상 : 흑색 (Color of Sheath: Black)

competitiveness of ES – TECH

적용규격

- ANSI / EIA / TIA-568,C
- ISO / IEC 11801
- UL 444
- KS C 3342

난연등급

- UL 1581 (CMX, CM)
- UL 1666 (CMR)
- IEC 60754, 61034(LSZH)

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INTERNATIONAL

Outdoor Lan cable U/UTP ( CAT.5E 4P, 2P )

주 파 수 Frequency (MHz)	반사손실 Return Loss(dB) Min,	감쇄량 Attenuatopn (dB/100m) Mix,	근단누화 NEXT(dB) Min,	근단누화전력합 PSNEXT (dB/100m) Min,	원단누화 ELFEXT (dB/100m) Min,	원단누화전력합 PSELFEXT (dB/100m) Min,
0.772	-	1,8	67,0	64,0	66,0	63,0
1	20,0	2,0	65,3	62,3	63,8	60,8
4	23,0	4,1	56,3	53,3	51,7	48,7
8	24,5	5,8	51,8	48,8	45,7	42,7
10	25,0	6,5	50,3	47,3	43,8	40,8
16	25,0	8,2	47,3	44,3	39,7	36,7
20	25,0	9,3	45,8	42,8	37,7	34,7
25	24,3	10,4	44,3	41,3	35,8	32,8
31,25	23,6	11,7	42,9	39,9	33,9	30,9
62,5	21,5	17,0	38,4	35,4	27,8	24,8
100	20,1	22,0	35,3	32,3	23,8	20,8

# Company Information

ES-TECH international is specialized in providing broadcasting, communication, electronic solutions.

ES-TECH international specialized in providing communication and infrastructure solutions for better life of humans. ES-TECH international provides a variety of fiber optic solutions and industrial power supply solutions over worldwide wire and wireless communication markets.

To keep pace with rapid changing market, ES-TECH international is expanding structured cable system/intelligence building system and network solution field by continuously developing new products through aggressive investment for R&D.

Developing better products in cooperating with global corporations in order to offer customized solutions for customer satisfaction is our primary.  
ES-TECH international will be always with you with state of the art solution which is your way to happiness.



## Company Products



Fiber Optics Cable



Coaxial Cable



SUN UPS Series



Rack Mount UPS



PSM Series



Feeder Cable



Indoor Passive Equipments



Outdoor Passive Equipments



Connectors



Indoor Amplifier

High Quality Total Communication Solutions



Optical Devices



LAN Cable

## CONNECTING THE POWERED LIFE

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Communication & Infrastructure



### OFFICE / PLANT

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