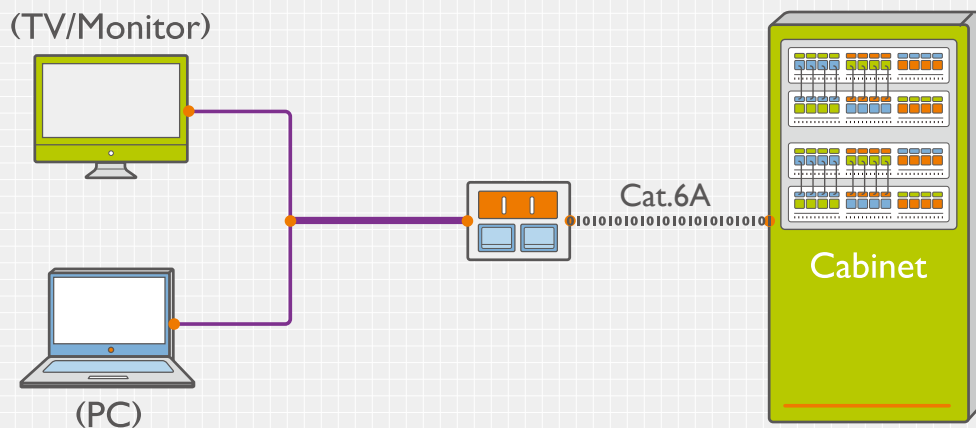




**LACSON**  
*CABLING SYSTEM*

## Total Solution brings 100% Satisfaction



### Who's Lacson

Lacson provides a comprehensive solution for networking infrastructure. Lacson is formed by a team of enthusiastic and professional people. We are committed to offering the products with highest quality and complete technical supports for our customers.

Our products meet the industry standards and even surpass those standards. Lacson is also dedicated to becoming an eco-friendly company and uses RoHS-compliance materials.

Lacson makes your life more convenient and creates a brighter future.

### Lacson's mission is to

- Deliver products with best quality.
- Be a world-leading cabling system provider.
- Be an eco-friendly enterprise.
- Offer professional supports for customers.

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[www.lacsoncabling.com](http://www.lacsoncabling.com)



## Standard Compliances

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5:2009 (Ed. 2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010

## Features and Benefits

- Extremely high bandwidth of 1000 MHz
- Individual pair shielding to provide EMI protection
- Highest signal-to-noise ration to reduce related downtime and network errors
- Provides positive PSACR beyond 1000 MHz
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- Unique product-specific packaging for ease of identification
- RoHS compliant
- EC Verified

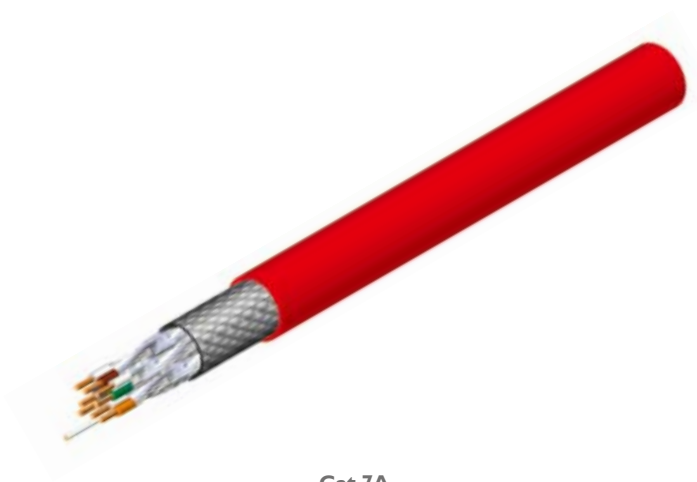
## Application

- 2.4/1.2 Gb/s ATM
- IEEE 802.3an:10G BASE-T (10 Gigabit Ethernet) supporting 100 meters
- 3D imaging
- Digital Video
- Broadband and Baseband Analog Video

## Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	Resistance unbalance between pairs (max.) (%)	4
DC Resistance (max.) $\Omega$ /km @ 20°C	95	Mean input impedance @100 MHz	100 $\pm$ 5 $\Omega$
Resistance unbalance within a pair (max.) (%)	2	Dielectric strength	Min 1.0 kVdc or 0.7 kVac for 1 min.      Min 2.5 kVdc or 1.7 kVac for 2 secs

# Category 7A Cable



Cat.7A

## Electrical Performance

### Meet IEC 61156-5 Ed.2.0 Category 7A horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Delay Skew (ns/100m)	Po. Delay (ns/100m)
			NEXT	ELFEXT	NEXT	ELFEXT		
	(dB/100m)		(dB/100m)		(dB/100m)		Max.	Max.
	Max.	Min.	Min.	Min.	Min.	Min.		
1	2.1	20.0	78.0	75.0	75.0	75.0	25	570
4	3.7	23.0	78.0	75.0	75.0	75.0	25	552.0
10	5.8	25.0	78.0	75.0	75.0	72.3	25	545.4
16	7.3	25.0	78.0	71.2	75.0	68.2	25	543.0
20	8.2	25.0	78.0	69.3	75.0	66.3	25	542.0
31.25	10.3	23.6	78.0	65.4	75.0	62.4	25	540.4
62.5	14.6	21.5	78.0	59.4	75.0	56.4	25	538.6
100	18.5	20.1	75.4	55.3	72.4	52.3	25	537.6
200	26.5	18.0	70.9	49.3	67.9	46.3	25	536.5
250	29.7	17.3	69.4	47.3	66.4	44.3	25	536.3
350	35.4	17.3	67.2	44.4	64.2	41.4	25	535.9
400	38.0	17.3	66.4	43.3	63.4	40.3	25	535.8
500	42.8	17.3	64.9	41.3	61.9	38.3	25	535.6
600	47.1	17.3	63.7	39.7	60.7	36.7	25	535.5
700	51.1	16.6	62.7	38.4	59.7	35.4	25	535.4
800	54.9	16.1	61.9	37.2	58.9	34.2	25	535.3
900	58.5	15.5	61.1	36.2	58.1	33.2	25	535.2
1000	61.9	15.1	60.4	35.3	57.4	32.3	25	535.1

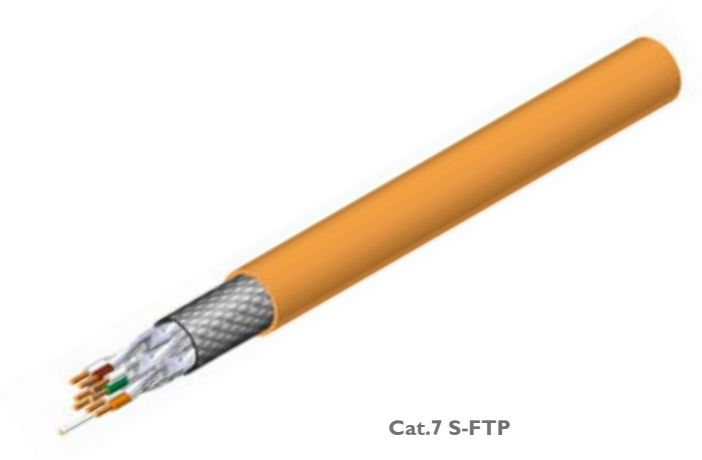
Note: The cable performance between 1MHz and 4MHz is achieved by designed only and it is therefore not necessary to test for this performance below 4MHz.

## Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)	NVP (%)
67904A	4	S-FTP	23AWG	1.45	8.58	71.5

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

Packaging : 305M / 500M Wooden Reel



Cat.7 S-FTP

## Standard Compliances

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5:2009 (Ed. 2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010

## Features and Benefits

- Extremely high bandwidth of 600 MHz
- Individual pair shielding to provide EMI protection
- Highest signal-to-noise ration to reduce related downtime and network errors
- Provides positive PSACR beyond 600MHz
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- Unique product-specific packaging for ease of identification
- RoHS compliant
- EC Verified

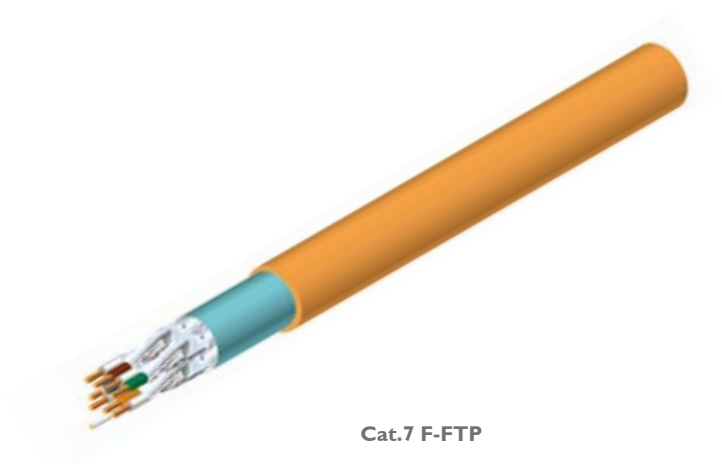
## Application

- 2.4/1.2 Gb/s ATM
- IEEE 802.3an:10G BASE-T (10 Gigabit Ethernet) supporting 100 meters
- 3D imaging
- Digital Video
- Broadband and Baseband Analog Video

## Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	Resistance unbalance between pairs (max.) (%)	4
DC Resistance (max.) $\Omega$ /km @ 20°C	95	Mean input impedance @100 MHz	100 $\pm$ 5 $\Omega$
Resistance unbalance within a pair (max.) (%)	2	Dielectric strength	Min 1.0 kVdc or 0.7 kVac for 1 min.      Min 2.5 kVdc or 1.7 kVac for 2 secs

# Category 7 Cable



Cat.7 F-FTP

## Electrical Performance

Meet IEC 61156-5 Ed.2.0 Category 7 horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Delay Skew (ns/100m)	Po. Delay (ns/100m)
			NEXT	ELFEXT	NEXT	ELFEXT		
	Max.	Min.	(dB/100m)		(dB/100m)		Max.	Max.
			Min.	Min.	Min.	Min.		
1	2.1	20.0	78.0	78.0	75.0	75.0	25	570.0
4	3.7	23.0	78.0	78.0	75.0	75.0	25	552.0
10	5.9	25.0	78.0	75.3	75.0	72.3	25	545.4
16	7.4	25.0	78.0	71.2	75.0	68.2	25	543.0
20	8.3	25.0	78.0	69.3	75.0	66.3	25	542.0
31.25	10.4	23.6	78.0	65.4	75.0	62.4	25	540.4
62.5	14.9	21.5	75.5	59.4	72.5	56.4	25	538.6
100	19.0	20.1	72.4	55.3	69.4	52.3	25	537.6
200	27.5	18.0	67.9	49.3	64.9	46.3	25	536.5
250	31.0	17.3	66.4	47.3	63.4	44.3	25	535.3
400	40.0	17.3	63.4	43.3	60.4	40.3	25	535.8
500	45.3	17.3	61.9	41.3	58.9	38.3	25	535.6
600	50.1	17.3	60.7	39.7	57.7	36.7	25	535.5

Note: The cable performance between 1MHz and 4MHz is achieved by designed only and it is therefore not necessary to test for this performance below 4MHz.

## Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)	NVP (%)
67304	4	F-FTP	23AWG	1.32	7.95	76.5
67904	4	S-FTP	23AWG	1.34	8.05	76.5

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

Packaging : 305M / 500M Wooden Reel

**PATENT**



**Cat.6A U-UTP**



**Cat.6A F-FTP**

### Standard Compliances

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5:2009(Ed.2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010
- ANSI/TIA-568-C.2:2009

### Features and Benefits

- Ideal solution for 10 Gigabit Ethernet
- Individual pair shielding or special designed filler to provide EMI protection
- Designed with shielding to offer maximum pair separation, increasing key electrical performance parameters
- Provides positive PSACR beyond 500MHz for higher available bandwidth
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- Unique product-specific packaging for ease of identification
- RoHS compliant
- EC Verified

### Application

- 2.4/1.2 Gb/s ATM
- IEEE 802.3an:10G BASE-T (10 Gigabit Ethernet) supporting 100 meters
- 3D imaging
- Digital Video
- Broadband and Baseband Analog Video

### Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	Resistance unbalance between pairs (max.) (%)	4
DC Resistance (max.) $\Omega$ /km @ 20° C	95	Mean input impedance @100 MHz	100 $\pm$ 5 $\Omega$
Resistance unbalance within a pair (max.) (%)	2	Dielectric strength	Min 1.0 kVdc or 0.7 kVac for 1 min.      Min 2.5 kVdc or 1.7 kVac for 2 secs



# 10G Solutions Category 6A Cable



Cat.6A U-FTP



Cat.6A S-FTP

## Electrical Performance

### MEET IEC 61156-5 Ed.2.0 Category 6A horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Delay Skew (ns/100m)	Po. Delay (ns/100m)
			NEXT	ELFEXT	NEXT	ELFEXT		
			(dB/100m)		(dB/100m)			
			Max.	Min.	Min.	Min.		
1	2.1	20.0	75.3	68.0	72.3	65.0	45	570.0
4	3.8	23.0	66.3	56.0	63.3	53.0	45	552.0
10	5.9	25.0	60.3	48.0	57.3	45.0	45	545.4
16	7.5	25.0	57.2	43.9	54.2	40.9	45	543.0
20	8.4	25.0	55.8	42.0	52.8	39.0	45	542.0
31.25	10.5	23.6	52.9	38.1	49.9	35.1	45	540.4
62.5	15	21.5	48.4	32.1	45.4	29.1	45	538.6
100	19.1	20.1	45.3	28.0	42.3	25.0	45	537.6
200	27.6	18.0	40.8	22.0	37.8	19.0	45	536.5
250	31.1	17.3	39.3	20.0	36.3	17.0	45	536.3
300	34.3	17.3	38.1	18.5	35.1	15.5	45	536.1
400	40.1	17.3	36.3	16.0	33.3	13.0	45	535.8
500	45.3	17.3	34.8	14.0	31.8	11.0	45	535.6

Note: The cable performance between 1MHz and 4MHz is achieved by designed only and it is therefore not necessary to test for this performance below 4MHz.

## Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)	NVP (%)
66504A1	4	U-UTP	23AWG	1.03	8.3	66.7
66304A	4	F-FTP	23AWG	1.32	7.59	76.5
66304BA	4	U-FTP	23AWG	1.32	7.47	76.5
66704A	4	F-UTP	23AWG	1.1	7.73	66.7
66904A	4	S-FTP	23AWG	1.34	8.05	76.5
66304BA1*	4	U-FTP	26AWG	0.93	5.59	72.9

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

Packaging : 305M / 500M Wooden Reel

\* Zone Cable / Application length : 60M (Max)

## Keystone Jack



**KTM6A-A00**



**KTD6A-A00**



**KTM6A-T00**

### Features

- Accept 22-26AWG solid wire
- Dual type terminal block accepts both KRONE & 110 (AT&T) punch down tools
- 8P8C 50 micron gold plated
- Meet ANSI / TIA - 568 - C2:2009
- EC Verified

P / N	Description
KTD6A-A00	Cat.6A Unshielded keystone jack
KTM6A-A00	Cat.6A Die-casting keystone jack
KTM6A-T00	Cat.6A Shielded Tool-free keystone jack

## Patch Panel



SPNU24-A00



SPNG24-A00

### Features

- Load 24 keystones in 1U of rack space
- Meet EIA/TIA 568B standard
- Rear cable management is included
- RoHS Compliant

P/N	Description
SPNU24-A00	Cat.6A Unshielded 24P patch panel, keystone jack snap-in type
SPNG24-A00	Cat.6A Shielded 24P patch panel, keystone jack snap-in type

## Patch Cord



### Features and Benefits

- Specified to 500MHz
- Suitable for 10G BASE-T, 10 Gigabit Ethernet Applications
- Meets or exceeds Cat.6A requirements when full product system is used
- 50-micron gold plated RJ-45 male-to -male
- PVC, Low Smoke Zero Halogen & Outer Sheath are available
- Multiple Selection of Lengths and Colors
- 24 AWG stranded bare copper conductor for unshielded; 26 AWG stranded bare copper conductor for shielded
- Backward compatible with Cat.5e and Cat.6
- RoHS Compliant

### Cat.6A Patch Cord

P/N	Description	Length
966AAGY-1010	Cat.6A UTP 24AWG PVC patch cable, Assembly type	1M
966AALGY-1010	Cat.6A UTP 24AWG LSZH patch cable, Assembly type	1M

P/N	Description	Length
964AGY-1010	Cat.6A FTP 26AWG PVC patch cable, Assembly type	1M
964ALGY-1010	Cat.6A FTP 26AWG LSZH patch cable, Assembly type	1M

\*\*2/3/5/7/10M are available



We help ideas meet the real world

## Compliance Statement

No. 2014-538

### Screened Channel, Class EA

#### Company

Lacson Co., Ltd  
12F., No. 117, Xicheng Rd.,  
Banqiao District,  
New Taipei City  
Taiwan R.O.C.

#### Channel Identification (4 connector model)

##### Horizontal cable:

Lacson CAT 6A Solid Cable

##### Cords:

Lacson CAT 6A Patch Cord

##### Wall Outlet:

Lacson CAT 6A Keystone Jack

##### Patch Panel:

Lacson CAT 6A Patch Panel

#### Generic cabling standards - Class EA, Channel requirements

- ISO/IEC 11801:2011 (Ed. 2.2)
- EN 50173-1:2011
- EN 50173-2:2007, including amendment A1:2010
- ANSI/TIA-568-C.2:2009

#### Technical report

DELTA-T209920, DANAK-19/14792

#### EC Cabling product ID

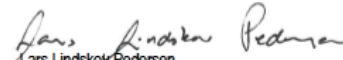
5592

#### CS valid until

4 December 2015

This product has been tested by DELTA EC Cabling Group and complies with the electrical requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The product takes part in a maintenance of certification schedule, which implies that DELTA EC Cabling performs a sample test of the product once a year.

Hørsholm, 4 December 2014

  
Lars Lindskov Pedersen  
Test Manager

  
Claude Videt  
Project Manager

#### DELTA

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Denmark

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Fax +45 72 19 40 01  
[www.madebydelta.com/cable](http://www.madebydelta.com/cable)





**Cat.6 U-UTP**

### Standard Compliances

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5:2009(Ed.2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010
- ANSI / TIA-568-C.2:2009

### Features and Benefits

- Tape design engineered for smaller overall diameter and ease of installation
- Characterized and tested to 250MHz
- Positive PSACR up to 300MHz for future bandwidth requirements
- Unique product-specific packaging for ease of identification
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- RoHS compliant
- UL Listed
- ETL / EC Verified

### Applications

- IEEE 802.3:1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
- ANSI/TIA / EIA-854:1000BASE-TX
- 155 Mb/s, 1.2 Gb/s ATM
- ANSI X3.263:100 Mb/s
- IEEE 802.3af DTE Power (POE)
- 4/16 Mb/s Token Ring
- Digital Video
- Broadband and Baseband Analog Video

### Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	Delay Skew (max.) ns/100m @ 20°C	45
DC Resistance (max.) Ω/km @ 20°C	95	Mean input impedance @100 MHz	100 ± 5 Ω
Resistance unbalance within a pair (max.) (%)	2	Dielectric strength	Min 1.0 kVdc
Resistance unbalance between pairs (max.) (%)	4		Min 2.5 kVdc
			or 0.7 kVac for 1 min.
			or 1.7 kVac for 2 secs

# Cat.6 Solutions



Cat.6 F-UTP



Cat.6 SF-UTP

## Electrical Performance

### MEET IEC 61156-5 ed.2.0 Category 6 horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Po. Delay (ns/100m)
			NEXT	ELFEXT	NEXT	ELFEXT	
			(dB/100m)		(dB/100m)		
			Max.	Min.	Min.	Min.	
1	2.1	20	75.3	68.0	72.3	65	570
4	3.8	23	66.3	56.0	63.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

Note: The cable performance between 1MHz and 4MHz is achieved by designed only and it is therefore not necessary to test for this performance below 4MHz.

## Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)	NVP (%)
66504	4	U-UTP	23AWG	0.97	6.10	66
66704	4	F-UTP	23AWG	1.08	6.86	66
66904	4	SF-UTP	23AWG	1.16	7.29	66

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

Packaging : 66504 : 305M Reelex Box / Reel in Box

Others : 305M / 500M Wooden Reel

## Keystone Jack



**KTP65-A0X**



**KTO65-A0X**



**KTP69-A10**

### Features

- Accept 22-26AWG solid wire
- Termination: Dual IDC (Krone & I 10)
- 8P8C 50 micron gold plated
- Meet EIA / TIA 568B standard
- RoHS Compliant

P / N	Description
KTP65-A0X	Cat.6 Unshielded keystone jack
KTO65-A0X	Cat.6 Unshielded keystone jack, 90 degree
KTP69-A10	Cat.6 Die-casting keystone jack

\* Color : 0 / black      1 / white

### UK Type Keystone Jack



P / N	Description
KTU65-A01	Unshielded Cat.6 module type keystone jack (25 X 50 mm)
KTU67-A01	Half shielded Cat.6 module type keystone jack (25 X 50 mm)



## Patch Panel

PND6924-A00



PNU6524-A00



### Features

- Accept 22-26 AWG solid wire
- Dual type terminal block accepts both Krone & 110 (AT&T) punch down tools
- 8P8C 50 micron gold plated
- Meet EIA / TIA 568B standard
- RoHS compliant

P / N	Description
PNU6524-A00	Cat.6 Unshielded 24P PCB type patch panel
SPNB6524-A00	Cat.6 Unshielded 24P patch panel, keystone jack snap-in type
SPNB6724-A00	Cat.6 Shielded 24P patch panel, keystone jack snap-in type
PND6924-A00	Cat.6 Shielded 24P PCB type patch panel

## Patch Cord



### Features and Benefits

- Specified to 250MHz
- Suitable for Gigabit 1000 BASE-T; 100 BASE-T; 10BASE-T(IEEE 802.3) Applications
- Meets or exceeds Cat.6 requirements
- 50-micron gold plated RJ-45 male-to -male
- PVC, Low Smoke Zero Halogen & Outer Sheath are available
- Multiple Selection of Lengths and Colors
- 24 AWG stranded bare copper conductor for unshielded; 26 AWG stranded bare copper conductor for shielded
- RoHS Compliant

### Cat.6 Patch Cord

P / N	Description	Length
966MGY - 1005	Cat.6 UTP 24 AWG PVC patch cable, Molding type	0.5M
966MLGY-1010	Cat.6 UTP 24 AWG LSZH patch cable, Molding Type	1M

P / N	Description	Length
962MGY-1005	Cat.6 FTP 26 AWG PVC patch cable, Molding type	0.5M
962MLGY-1010	Cat.6 FTP 26AWG LSZH patch cable, Molding type	1M

\*\*2 / 3 / 5 / 7 / 10M are available



3933 US Route 11  
Cortland, New York 13045 USA  
Phone Number: (800) 345-3851  
Fax Number: (607) 758-6637  
Web: www.intertek.com

**Intertek**

**ETL Verified Certificate of Conformance Number: 100999418CRT-001**

On the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the essential requirements of the referenced specifications at the time the tests were carried out.

**Applicant:**

Lacson Co., Ltd  
12F., No. 117, Xicheng Rd. Banqiao Dist.,  
New Taipei City, Taiwan R.O.C.  
Contact Mr. Adan Ho

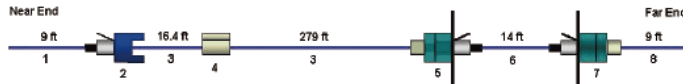
**Manufacturer:**

Lacson Co., Ltd  
12F., No. 117, Xicheng Rd. Banqiao Dist.,  
New Taipei City, Taiwan R.O.C.  
Contact: Mr. Adan Ho

**Verification/Report Number:** 100457308CRT-001b

**Product Tested:**

4-Connector Channel



Component ID	Manufacturer	Part Number	Description
1, 8	Lacson	66504	Equipment Cord
2	Lacson	KTP65-AXX	Wall Outlet
3	Lacson	966MXX	Horizontal Cable
4	Lacson	KTO65-AXX	110 Block
5, 7	Lacson	PNU6524-AXX	Patch Panel
6	Lacson	966MXX	Equipment Cord

**Standard(s)/Specification:** ANSI/TIA-568-C.2 Category 6 with the applicable electrical transmission characteristics

**Product(s) Literature May Include:** ETL Verified 4-Connector Channel to ANSI/TIA-568-C.2 Category 6, along with channel illustration, and parts numbers.

Continuing compliance to this specification is monitored through production testing, quarterly inspections by Intertek at the production facility and random sample testing.

**Date Verified:** 12/12/2012

**Approved By:**

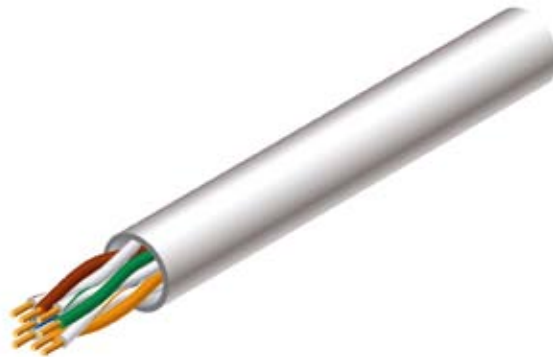
*John Cash*  
John Cash, Technician

*Antoine Pelletier*  
Antoine Pelletier, Team Leader

**This verification supersedes all previous verifications with the noted Verification/Report number(s) dated before this verification notice.**

**NOTE: This verification is part of the full test report(s) and should be read in conjunction with it.**

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**Cat.5e U-UTP**

### Standard Compliances

- ISO / IEC 11801:2011(Ed.2.2)
- IEC 61156-5:2009(Ed.2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010
- ANSI / TIA-568-C.2:2009

### Features and Benefits

- Positive PSACR beyond 155MHz for future bandwidth requirements
- Characterized and tested to 100 MHz
- Unique product-specific packaging for ease of identification
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- RoHS compliant
- ETL / EC Verified

### Applications

- IEEE 802.3:1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
- 52 / 155 Mp/s ATM
- ANSI X3.263:100 Mb/s
- 4 / 16 Mb/s Token Ring

### Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	Delay Skew (max.) ns/100m @ 20° C	45
DC Resistance (max.) Ω/km @ 20° C	95	Mean input impedance @ 100 MHz	100 ± 5 Ω
Resistance unbalance within a pair (max.) (%)	2	Dielectric strength	Min 1.0 kVdc or 0.7 kVac for 1 min.
Resistance unbalance between pairs (max.) (%)	4		Min 2.5 kVdc or 1.7 kVac for 2 secs

# Cat.5e Solutions



Cat.5e F-UTP



Cat.5e SF-UTP

## Electrical Performance

### MEET IEC 61156-5 ed2.0 Category 5e horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Po. Delay (ns/100m)		
			NEXT	ELFEXT	NEXT	ELFEXT			
			(dB/100m)					(dB/100m)	
			Max.	Min.	Min.	Min.		Min.	Min.
1	2.1	20.0	65.3	64.0	62.3	61	570		
4	4.1	23.0	56.3	52	53.3	49.0	552.0		
10	6.5	25.0	50.3	44.0	47.3	41.0	545.4		
16	8.3	25.0	47.2	39.9	44.2	36.9	543.0		
20	9.3	25.0	45.8	38.0	42.8	35.0	542.0		
31.25	11.7	23.6	42.9	34.1	39.9	31.1	540.4		
62.5	17.0	21.5	38.4	28.1	35.4	25.1	538.6		
100	22.0	20.1	35.3	24.0	32.3	21.0	537.6		

Note: The cable performance between 1MHz and 4MHz is achieved by designed only and it is therefore not necessary to test for this performance below 4MHz.

## Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)	NVP (%)
65504A	4	U-UTP	24AWG	0.90	4.98	66
65704A	4	F-UTP	24AWG	1.03	5.99	66
65904A	4	SF-UTP	24AWG	1.03	6.42	66

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

Packaging : 305M Reelex Box / Reel in Box

## Keystone Jack



KTP55-A0X



KTN55-A0X



KTV59-A00

### Features

- Accept 22-26AWG solid wire
- Termination: Dual IDC (Krone & 110)
- 8P8C 50 micron gold plated
- Meet EIA / TIA 568B standard
- RoHS Compliant

P / N	Description
KTP55-A0X	Cat.5e Unshielded keystone jack
KTN55-A0X	Cat.5e Unshielded keystone jack, 90 degree
KTV59-A00	Cat.5e Shielded keystone jack, 90 degree

\* Color : 0 / black      1 / white

### UK Type Keystone Jack



P / N	Description
KTU55-A01	Unshielded Cat.5e module type keystone jack (25 X 50 mm)
KTU57-A01	Half shielded Cat.5e module type keystone jack (25 X 50 mm)

## Patch Panel



### Features

- Accept 22-26AWG solid wire
- Termination: 110 (AT&T) only or Dual (Krone & 110)
- 8P8C 50 micron gold plated
- Meet EIA/TIA 568B standard
- RoHS Compliant

P / N	Description
PNU5524-A00	Cat.5e Unshielded 24P patch panel
PND5924-A00	Cat.5e Shielded 24P patch panel



## Features and Benefits

- Specified to 100MHz
- Suitable for Gigabit Ethernet, ATM 155.622Mbps, FDDI/CDDI 100Mbps, Ethernet 100 Base-TX, 100 Base VG; Token Ring, 10 Base-T Applications
- Meets or exceeds Cat.5e requirements
- 50-micron gold plated RJ-45 male-to -male
- PVC, Low Smoke Zero Halogen & Outer Sheath are available
- Multiple Selection of Lengths and Colors
- 24 AWG stranded bare copper conductor for unshielded; 26 AWG stranded bare copper conductor for shielded
- RoHS Compliant

## Cat.5e Patch Cord

P/N	Description	Length
956AMGY-1005	Cat.5e UTP 24 AWG PVC patch cable, Molding type	0.5M
956AMLGY-1010	Cat.5e UTP 24 AWG LSZH patch cable, MoldingType	1M

P/N	Description	Length
952MGY-1005	Cat.5e FTP 26 AWG PVC patch cable, Molding type	0.5M
952MLGY-1010	Cat.5e FTP 26 AWG LSZH patch cable, Molding type	1M

\*\*2/3/5/7/10M are available



# Cat.5e Solutions



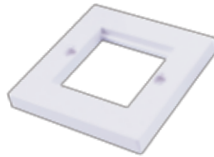
## Face Plates



FPA-6X



FPA-4X



FPD02-X



FPE04-X

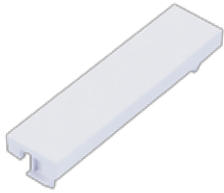
### Features

- These face plate are designed for keystone jacks, blank brackets, keystone brackets
- Material : Fireproof ABS UL - 94V0
- Operation temperature : -40 ~ 70° C

P / N	Description
FPA - 1X	US Type 1 port
FPA - 2X	US Type 2 ports
FPA - 3X	US Type 3 ports
FPA - 4X	US Type 4 ports
FPA6 - X	US Type 6 ports
FPE04 - X	French Type 80*80 mm ( inner 45*45 mm)
FPD02 - X	UK type 86*86 mm ( inner 50*50 mm)
FPD05 - X	UK type 86*86 mm ( inner 25*50 mm)
FPC03 - X	European Type 80*80mm ( Inner 50*50mm)

\* Color: 1 / white      3 / ivory

## Snap Module Bracket



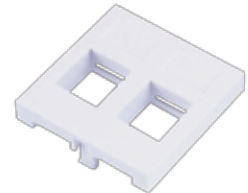
SP01-X



SP04-X



SP07-X



SP19-X

### Features

- These keystone brackets are designed to fit in French / UK and EU style wall plates
- Material : ABS UL 94-V-0

P / N	Description
SP00-X	Blank Bracket ( 25*50 mm )
SP01-X	Blank Bracket ( 12.5*50 mm )
SP02-X	Blank Bracket ( 50*50 mm )
SP04-X	UK type keystone jack bracket ( 25*50 mm ) w/shutter
SP06-X	45*22.5mm 1P keystone jack bracket
SP07-X	45*45mm 1P keystone jack bracket w/shutter
SP19-X	45*45mm 2P keystone jack bracket

\* Color: 1 / white      3 / ivory



IFP01-X



IFP04-X

### Features

- These keystone brackets are designed to fit in French / UK and EU style wall plates
- Material : ABS UL 94V0

Module Insert series	
IFP01-X	Blank module
IFP02-X	Insert module with BNC connector
IFP03-X	Insert module with F connector
IFP04-X	Insert module with RCA connector

\* Color: 1 / white      3 / ivory

## Data Box / Back Box



**DBA1-X**



**DBU2-X**

### Features

- Designed for keystone jack, blank insert, BNC coupler, F connectors, RCA connectors installation
- RoHS compliant

P / N	Description
DBU1-X	1P Surface mount box
DBU2-X	2P Surface mount box
DBA1-X	1P Surface mount box with ID Label
DBA2-X	2P Surface mount box with ID Label

\* Color: 1 / white      3 / ivory



**SPI90-1**



**SPI120-1**

### Features

- Material :  
Body : ABS  
Nut : Brass & Nickel plated
- Operation temperature : -40 ~ 70° C

P / N	Description
SPI90-1	Back box ( 80*80*45 mm ) , white
SPI40-1	Back box ( 86*86*45 mm ) , white
SPI120-1	Back box ( 70*115*48 mm ) , white

## Cable Management / Blank Panel / Blind Panel



PLCM-070



PLCM-D060

P / N	Description
PLCM-060	19" 1U Cable management ( PVC FRAME)
PLCM-070	19" 1U Cable management ( PC FRAME)
PLCM-D060	19" 1U Double sides cable management ( PVC FRAME)



### Features

- 1U 19" blank panel for up to 24 keystone jacks
- RoHS compliant

P / N	Description
IPNK24-0	24P Blank panel - plastic front face w/cable management
IPNG24-0	24P Blank panel, for C6A Die-casting keystone jack
IPNU24-0	24P Blank panel, for C6A Unshielded keystone jack



P / N	Description
PLCM-080	1U Blind panel
PLCM-090	2U Blind panel

## Cable Tie / Tool



### Cable Tie

Part No.	Description	Width	Length	Color
NTA1001-YL	Cable Tie, Nylon, A Type	10 mm	1 m	Yellow
NTB1205-YL	Cable Tie, Nylon, B Type	12 mm	12.7 cm	Yellow

\*\* A type: Width: 12/13/19/25 mm are available  
Length: 3/5/10/20/25M are available

\*\* B type: Length 15.24 cm / 20.32 cm are available

\*\* BK : black      GN : green  
IV : ivory        RD : red  
WH : white       BL : blue  
YL : yellow       GY : gray



TP-001-K



TU-001



TS-003



TC-001



TC-003



TC-005

### Tool

P / N	Description
TP-001-A	Impact Punch down tool - 110 Type
TP-001-K	Impact Punch down tool - Krone Type
TS-001	Punch down tool & cable stripper
TS-002	Coaxial cable stripper for RG-58/59/62/6/3C2V
TS-003	Cable stripper & cutter for UTP/FTP/FLAT/COAX cables
TC-001	Crimp tool for 8P8C RJ45
TC-002	Crimp tool for RJ12 & RJ45
TC-003	Professional modular crimping & stripping tool for 4P/6P/6PDEC/8P
TC-005	Fiber optic crimping tool. Hex size : 042", 068", 133", 162", 195 ( OVAL TYPE)
TS-004	Fiber optic stripper, for $\phi 0.254\text{mm}$ (0.010") & 0.32mm (0.0125")
TU-001	Fiber optic scissors

## Cat.3 Multi-Pair Cable



### Standard Compliances

- ANSI / TIA 568-C.2

### Features and Benefits

- ANSI / TIA 568-C.2 Category 3 Backbone Cable

### Applications

- Ethernet 10BASE-T
- Voice

### Technical Details

Capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	3300
DC Resistance (max.) $\Omega$ /km @ 20°C	89
Resistance unbalance within a pair (max.) (%)	5
Mean input impedance (min.) @ 16 MHz	100 $\pm$ 15 $\Omega$
Dielectric strength	500V AC / 1min

### Electrical Performance

#### ANSI / TIA 568C.2 Category 3 horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	Structural Return Loss (dB)	NEXT (dB/100m)
	Min.	Min.	Min.
1	2.6	12.0	41.3
4	5.6	12.0	32.3
8	8.5	12.0	27.8
10	9.7	12.0	26.3
16	13.1	9.95	23.2

### Order Information

Part No.	No. of Pairs	Cable Type	Conductor Size	Core Dimension (mm)	Overall Dimension (mm)
63525	25	U-UTP	24AWG	0.9	13.00
63550	50	U-UTP	24AWG	0.9	19.64
63500	100	U-UTP	24AWG	0.9	28.42

Jacket : PVC, LSZH (Low Smoke Zero Halogen), Outdoor PE

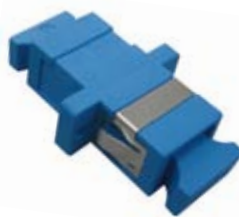
Packaging : 305M / 500M Wooden Reel

## Connector & Adaptor



### Order Information of Connector

FCN - (1) (2) (3) (4)			
(1) Connector	(2) Mode	(3) Type	(4) Boot Diameter
T : ST	M:Multi Mode	S:Simplex	9:0.9mm
M : MTRJ	S:Single Mode	D:Duplex	2:2.0mm
L : LC/PC			3:3.0mm
O : LC/APC			
F : FC/PC			
Q : FC/APC			
C : SC/PC			
S : SC/APC			



### Order Information of Adaptor

FAD - (1) (2) (3) (4) (5)			
(1) & (2) Adaptor	(3) Sleeves	(4) Type of Adaptor	(5) Housing Color
L:LC	C:Ceramic Sleeve	S:Simplex	U:Blue (single mode)
S:SC	M:Metal Sleeves	D:Duplex	G:Green (APC)
T:ST		Q:Quad	B:Beige (multimode)
M:MTRJ			M:Metal
F:FC			A:Aqua (OM3)



# Optical Fiber Solutions

## Patch Cord & Pigtail



### Features

- Available for Single mode (9/125) and Multi mode (50/125 & 62.5/125)
- Test report on each single bag

### Order Information of Patch Cord

FPC - (1) (2) (3) (4) (5) (6) - (7)

(1) (2) Connector	(3) Cable Type	(4) Cable OD
T: ST	S: Simplex	9:900mm
M: MTRJ	D: Duplex	2:2.0mm
L: LC/PC		3:3.0mm
O: LC/APC		1:1.8mm (Mini Zip)
F: FC/PC		
Q: FC/APC		
C: SC/PC		
S: SC/APC		
P: Pigtail		

(5) Fiber Type	(6) Cable Jacket	(7) Cable Length
9: 9/125	R: OFNR	005:0.5mtr
6: 62.5/125	P: OFNP	010:1mtr
5: 50/125	Z: LSZH	015:1.5mtr
3: OM3		
4: OM4		

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