# n e t w o r k s

# STRUCTURED CABLING PARTNER



# Category 6 U/UTP 4 Pair 23AWG Cable

#### OPTIPLUS Category 6 U/UTP (Unshielded Twisted Pair)

4 Pair 23AWG cable is a high-speed & excellent data communication cable. It conveys high bit-rate signaling for extended distances in backbone & horizontal applications. Optiplus cables can support bandwidths up to 250MHz and are best suitable for 10BASE-T, 100BASE-TX (Fast Ethernet), 1000BASE-T/1000BASE-TX (Gigabit Ethernet). It can support a distance up to 100 meter or 328 feet without extra signal boosters or signal amplifiers.

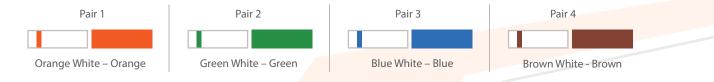
## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-5
- EN 50288-1
- EN 50173-1
- IEEE /802.af, IEEE 802.3at for PoE applications

## **Key Features:**

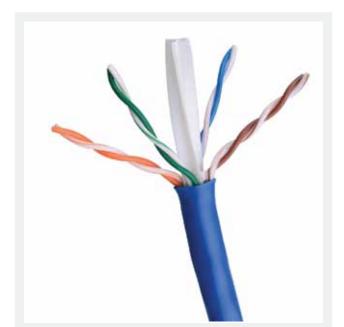
- Tested up to 250MHz.
- High ACR values-providing low BER (Bit Error-Rate).
- Exceeds Cat 6 performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic Compatibility).
- Maximum noise immunity and minimum radiations.
- UL94V-0 rated plastic.
- Standard packing will be 305 meter easy pull out box.

## **Colour Code:**



## Cable Construction:

Conductor Material	23AWG Solid Bare Copper
Conductor Construction	Solid
Conductor Diameter	0.56mm
Insulation Material	HDPE (HIGH DENSITY POLY ETHYLENE)
Insulation Diameter	1.03 ± 0.03mm
Pairs Count	4 nos
Jacket Thickness (mm)	0.55mm ± 0.05mm
Jacket Material	PVC, Low Smoke Zero Halogen (LSZH), Pleanum
Jacket Colour	White, Gray, Blue & Orange
Measurement Marking	Yes





- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- OC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m
- Propagation Delay Skew 35 nsec/100m
- Bend Radius 53.6mm (min)
- Insulation Resistance 500 MΩ.km (min)
- Dielectric Strength 1.0kV dc or 0.7kV ac for 1 min
- Voltage 300 Volts AC or DC
- Operating Temperature -20°C to 75°C
  Storage Temperature 0°C to 80°C
  - Attenuation NEXT (dB) **PS NEXT** ELFEXT PSELFEXT Return Loss Freq. (MHz) (dB) max. (dB) min. (dB) min. (dB) min. (dB) min. min. 2.0 74.3 72.3 67.8 20.0 1 64.8 4 3.8 65.3 63.3 55.8 52.8 23.0 25.0 10 6.0 59.3 57.3 47.8 44.8 20 8.5 54.8 52.8 41.8 38.8 25.0 57.9 23.6 31.25 10.7 49.9 37.9 34.9 100 19.8 44.3 42.3 27.8 24.8 20.1 200 29.0 39.8 21.8 18.8 18.0 37.8 250 32.8 38.3 36.3 19.8 16.8 17.3

## Transmission Characteristics:

PART NUMBER	DESCRIPTION	LENGTH
OP-C6110023/PVC	Category 6 U/UTP 4 Pair Cable PVC	305 mtr
OP-C6110023/LSZH	Category 6 U/UTP 4 Pair Cable LSZH	305 mtr
OP-C6110023/PLM	Category 6 U/UTP 4 Pair Cable PLEANUM	305 mtr



# Category 6 F/UTP 4 Pair Cable

#### **OPTIPLUS Category 6 F/UTP (Twisted Pair-Overall Foil Shield)** 4 Pair 23AWG cable is a high-speed, high performance data communication cable which provides extra protection from external noise sources and gives excellent quality performance even at risky or unfriendly environments. It is capable of carrying high bit-rate signaling for extended distances in backbone & horizontal applications. It can prove to be a very economical solution for risky

environments cabling such as in small or large scale industries,

## Standards

hospitals etc.

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-5
- EN 50288-1
- EN 50173-1
- IEEE /802.af, IEEE 802.3at for PoE applications

## Key Features:

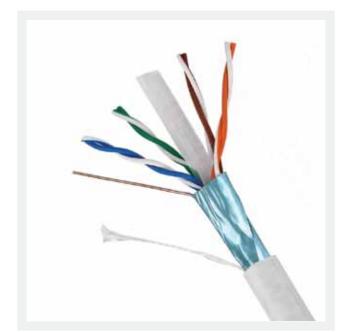
- Tested up to 250MHz.
- High ACR values-providing low BER (Bit Error-Rate).
- Exceeds Cat 6 performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic compatibility).
- Maximum noise immunity and minimum radiations.
- UL94V-0 rated plastic.
- Standard packing will be 305 meter easy pull out box.

## Colour Code:



## Cable Construction:

Conductor Material	23AWG Solid Bare Copper
Conductor Construction	Solid
Conductor Diameter	0.56mm
Insulation Material	HDPE ( HIGH DENSITY POLY ETHYLENE)
Insulation Diameter (approx.mm)	1.05± 0.05mm
Foil	Wrapped with aluminium tape
Pairs Count	4 nos
Jacket Thickness (mm)	0.60mm ± 0.05mm
Jacket Material	PVC/LSZH
Jacket Colour	White, Gray, Blue & Orange
Measurement Marking	Yes





- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- OC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m
- Propagation Delay Skew 35 nsec/100m
- Bend Radius 56mm (min)
- Insulation Resistance 500 MΩ.km(min)
- Dielectric Strength 1.0kV d.c. or 0.7kV a.c. for 1min
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

Freq. (MHz)	Attenuation (dB) max.	NEXT (dB) min.	PS NEXT (dB) min.	ELFEXT (dB) min.	PSELFEXT (dB) min.	Return Loss (dB) min.
1	2.0	80.0	80.0	82.0	79.0	27.0
4	3.8	65.3	63.3	58.0	55.0	23.0
10	6.0	59.3	57.3	50.0	47.0	25.0
20	8.5	54.8	52.8	44.0	41.0	25.0
31.25	10.7	51.9	49.9	40.1	37.1	23.6
100	19.8	44.3	42.3	30.0	27.0	20.1
200	29.0	39.8	37.8	24.0	21.0	18.0
250	330	38.3	36.3	22.0	19.0	17.3

## Transmission Characteristics:

PART NUMBER	DESCRIPTION	LENGTH
OP-C6110123/PVC	Category 6 F/UTP 4 Pair Cable PVC	305 mtr
OP-C6110123/LSZH	Category 6 F/UTP 4 Pair Cable LSZH	305 mtr



# Category 6 U/FTP 4 Pair Cable

**OPTIPLUS category 6 U/FTP (Foil Twisted Pair)** 4 Pair 23AWG cables are suitable for risky environment, where cabling systems installed in a critical manner such as in small and large scale industries, hospitals etc. Optiplus U/FTP cables provide extra protection from external noise sources with excellent quality performance. It is capable of carrying high bit-rate signaling for extended distances in backbone & horizontal applications.

## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-5
- EN 50288-1
- IEEE /802.af, IEEE 802.3at for PoE applications



## **Key Features:**

- Tested up to 250MHz.
- High ACR values-providing low BER (Bit Error-Rate).
- Exceeds Cat 6 performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic compatibility).
- Maximum noise immunity and minimum radiations.
- UL94V-0 rated plastic.
- Standard packing will be 305 meter easy pull out box.

## Colour Code:



## Cable Construction:

Conductor Material	23AWG Solid Bare Copper
Conductor Construction	Solid
Conductor Diameter	0.56mm
Insulation Material	HDPE ( HIGH DENSITY POLY ETHYLENE)
Insulation Diameter (approx.mm)	1.34± 0.05mm
Foil	Individual pair wrapped with aluminium tape
Pairs Count	4 nos
Jacket Thickness (mm)	0.60mm ± 0.05mm
Jacket Material	PVC/LSZH
Jacket Colour	White, Gray, Blue & Orange
Measurement Marking	Yes



- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- DC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m
- Propagation Delay Skew 35 nsec/100m
- Bend Radius 69.3mm (min)
- Insulation Resistance 500 MΩ.km (min)
- Dielectric Strength 1.0kV dc or 0.7kV ac for 1 min
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

Freq. (MHz)	Attenuation (dB) max.	NEXT (dB) min.	PS NEXT (dB) min.	ELFEXT (dB) min.	PSELFEXT (dB) min.	Return Loss (dB) min.
1	2.0	66.0	64.0	66.0	64.0	20.0
4	3.8	65.3	63.3	58.0	55.0	23.0
10	6.0	59.3	57.3	50.0	47.0	25.0
20	8.5	54.6	52.8	44.0	41.0	25.0
31.25	10.7	51.9	49.9	40.1	37.1	23.6
100	19.9	44.3	42.3	30.0	27.0	20.0
200	29.1	39.8	37.8	24.0	21.0	18.0
250	33.0	38.3	36.3	22.0	19.0	17.3

## Transmission Characteristics:

PART NUMBER	DESCRIPTION	LENGTH
OP-C6110223/PVC	Category 6 U/FTP 4 Pair Cable PVC	305 mtr
OP-C6110223/LSZH	Category 6 U/FTP 4 Pair Cable LSZH	305 mtr



# Category 6 F/FTP 4 Pair Cable

# OPTIPLUS Category 6 F/FTP (Foil Twisted Pair-Overall

**Foil Shield)** 4 Pair 23AWG cables are suitable solution for risky environment where cabling systems installed in a critical manner such as medium or large scale manufacturing plants, hospitals, laboratories etc. Optiplus F/FTP cables provide extra protection from external noise sources with excellent quality performance. It is capable of carrying high bit-rate signaling for extended distances in backbone & horizontal applications.

## Standards

- ANSI/TIA-568-C.2
- EN 50288-1
- ISO/IEC 11801
- TIA/EIA 568-B.2-1
- ISO/IEC 611156-5
- IEEE /802.af, IEEE 802.3at for PoE applications

## Key Features:

- Tested up to 250MHz.
- High ACR values-providing low BER (Bit Error-Rate).
- Exceeds Cat 6 performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic compatibility).
- Maximum noise immunity and minimum radiations.
- UL94V-0 rated plastic.
- Standard packing will be 305 meter easy pull out box.

## Colour Code:



## Cable Construction:

Conductor Material	23AWG Solid Bare Copper
Conductor Construction	Solid
Conductor Diameter	0.56mm
Insulation Material	Cellular Polyolefin
Insulation Diameter (approx.mm)	1.35± 0.05mm
Foil	Individual pair wrapped with aluminium tape
Pairs Count	4 nos
Jacket Thickness (mm)	0.60mm ± 0.05mm
Jacket Material	PVC/LSZH
Jacket Colour	White, Gray, Blue & Orange
Measurement Marking	Yes





- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- DC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m
- Propagation Delay Skew 25nsec/100m
- Bend Radius 58.3mm (min)
- Insulation Resistance 500 MΩ.km (min)
- Dielectric Strength 1.0kV dc or 0.7kV ac for 1 min
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

Freq. (MHz)	Attenuation (dB) max.	NEXT (dB) min.	PS NEXT (dB) min.	ELFEXT (dB) min.	PSELFEXT (dB) min.	Return Loss (dB) min.
1	2.0	66.0	64.0	66.0	64.0	23.0
4	3.8	65.3	63.3	58.0	55.0	23.0
10	6.0	59.3	57.3	50.0	47.0	25.0
20	8.5	54.8	52.8	44.0	41.0	25.0
31.25	10.7	51.9	49.9	40.1	37.1	23.6
100	19.9	44.3	42.3	30.0	27.0	20.1
200	29.1	39.8	37.8	24.0	21.0	18.0
250	33.0	38.3	36.3	22.0	19.0	17.3

## Transmission Characteristics:

PART NUMBER	DESCRIPTION	LENGTH
OP-C6110323/PVC	Category 6 F/FTP 4 Pair Cable PVC	305 mtr
OP-C6110323/LSZH	Category 6 F/FTP 4 Pair Cable LSZH	305 mtr



# Category 6 S/FTP 4 Pair Cable

#### OPTIPLUS Category 6 S/FTP (Foil Twisted Pair-Shielded)

4 Pair 23AWG cable is an advanced solution for very risky environment where cabling systems installed in a critical manner such as in Defense, Aerodromes, Power Plants, Petro Chemical fields etc. Optiplus S/FTP cables provide extra protection from external noise sources with excellent quality performance. It is capable of carrying high bit-rate signaling for extended distances in backbone & horizontal applications.

## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-5
- EN 50288-1
- IEEE /802.af, IEEE 802.3at for PoE applications

## **Key Features:**

- Tested up to 250MHz.
- High ACR values-providing low BER (Bit Error-Rate).
- Exceeds Cat 6 performance.
- Extremely high pair-balance-providing excellent EMC (Electromagnetic compatibility).
- Maximum noise immunity and minimum radiations.
- UL94V-0 rated plastic.
- Standard packing will be 305 meter easy pull out box.

## Colour Code:



## Cable Construction:

Conductor Material	23AWG Solid Bare Copper
Conductor Construction	Solid
Conductor Diameter	0.56mm
Insulation Material	Cellular Polyolefin
Insulation Diameter (approx.mm)	1.36± 0.05mm
Foil	Individual pair wrapped with aluminium tape
Pairs Count	4 nos
Jacket Thickness (mm)	0.5 <sup>5</sup> mm ± 0.05mm
Jacket Material	PVC/LSZH
Jacket Colour	White, Gray, Blue & Orange
Measurement Marking	Yes





- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- DC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m
- Propagation Delay Skew 35 nsec/100m
- Bend Radius 58.2mm (min)
- Insulation Resistance 500 MΩ.km (min)
- Dielectric Strength 1.0kV dc or 0.7kV ac for 1 min
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

Freq. (MHz)	Attenuation (dB) max.	NEXT (dB) min.	PS NEXT (dB) min.	ELFEXT (dB) min.	PSELFEXT (dB) min.	Return Loss (dB) min.
1	2.0	66.0	64.0	66.0	64.0	23.0
4	3.8	65.3	63.3	58.0	55.0	23.0
10	6.0	59.3	57.3	50.0	47.0	25.0
20	8.5	54.8	52.8	44.0	41.0	25.0
31.25	10.7	51.9	49.9	40.1	37.1	23.6
100	19.9	44.3	42.3	30.0	27.0	20.1
200	29.1	39.8	37.6	24.0	21.0	18.0
250	33.0	38.3	36.3	22.0	19.0	17.3

## Transmission Characteristics:

PART NUMBER	DESCRIPTION	LENGTH
OP-C6110423/PVC	Category 6 S/FTP 4 Pair Cable PVC	305 mtr
OP-C6110423/LSZH	Category 6 S/FTP 4 Pair Cable LSZH	305 mtr



# Category 6 U/UTP Patch Cord

**OPTIPLUS category 6 U/UTP Patch Cord** ensures optimum performance from the cabling system. Optiplus factory molded patch cords are individually tested as per ANSI/TIA-568-C.2 channel standard. Patch cords are available with Cat 6 solid 23 AWG cable or Cat 6 strand cables. Optiplus patch cords are manufacturing with standard compliant RJ-45 modular plugs and it is tested for transmission frequencies to 250MHz.

## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-2
- EN 50288-6-2
- EN 50173-1
- IEEE /802.af, IEEE 802.3at for PoE applications

## **Construction:**



Conductor Material	23AWG Solid Bare Copper
Insulation Material	HDPE (HIGH DENSITY POLY ETHYLENE)
Number of Conductors	8 Nos
Jacket and Boot Material	PVC/LSZH
Jacket and Boot Color	As per requirement
Cable Overall Diameter	6.0mm max.

## **Electrical and Mechanical Characteristics:**

- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- DC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m

- Propagation Delay Skew 35 nsec/100m
- Dielectric Strength 1KV/minute
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

## **Ordering Information:**

PART NUMBER	DESCRIPTION	LENGTH
OP-C614002301/PVC	Cat <mark>egory 6 U/UTP Patch Cord PVC</mark> 01m	1m
OP-C614002302/PVC	Category 6 U/UTP Patch Cord PVC 02m	2m
OP-C614002303/PVC	Category 6 U/UTP Patch Cord PVC 03m	3m
OP-C614002305/PVC	Category 6 U/UTP Patch Cord PVC 05m	5m
OP-C614002310/PVC	Category 6 U/UTP Patch Cord PVC 10m	10m
OP-C614002301/LSZH	Category 6 U/UTP Patch Cord LSZH 01m	1m
OP-C614002302/LSZH	Category 6 U/UTP Patch Cord LSZH 02m	2m
OP-C614002303/LS <mark>ZH</mark>	Category 6 U/UTP Patch Cord LSZH 03m	3m
OP-C614002305/LSZH	Category 6 U/UTP Patch Cord LSZH 05m	5m
OP-C614002310/LSZH	Category 6 U/UTP Patch Cord LSZH 10m	10m



# Category 6 F/UTP Patch Cord

**OPTIPLUS category 6 F/UTP Patch Cord** performs well in high-noise environments such as industrial and manufacturing where electromagnetic devices could impair the network. It offers high quality performance with foil-over unshielded Cat 6 cable and a shielded plug fitted with a strain relief boot. Optiplus patch cords are individually tested as per ANSI/TIA-568-C.2 channel standard which are compliant with RJ-45 modular plugs and it is tested for transmission frequencies of up to 250MHz.

## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-2
- EN 50288-6-2
- EN 50173-1
- IEEE /802.af, IEEE 802.3at for PoE applications

### Construction:



Conductor Material	23AWG Solid Bare Copper
Insulation Material	HDPE (HIGH DENSITY POLY ETHYLENE)
Number of Conductors	8 Nos
Jacket and Boot Material	LSZH or PVC
Jacket and Boot Color	As per requirement
Cable Overall Diameter	6.0mm max.

## **Electrical and Mechanical Characteristics:**

- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- OC Resistance 73 Ω/100m
- Capacitance 5.6nF/100m

- Propagation Delay Skew 35 nsec/100m
- Dielectric Strength 1KV/minute
- Operating Temperature -20°C to 75°C
- Storage Temperature 0°C to 80°C

PART NUMBER	DESCRIPTION	LENGTH
OP-C614012301/PVC	Category 6 F/UTP Patch Cord PVC 01m	1m
OP-C614012302/PVC	Cat <mark>egory 6 F/UTP Patch Cord PVC 02</mark> m	2m
OP-C614012303/PVC	Category 6 F/UTP Patch Cord PVC 03m	3m
OP-C614012305/PVC	Category 6 F/UTP Patch Cord PVC 05m	5m
OP-C614012310/PVC	Category 6 F/UTP Patch Cord PVC 10m	10m
OP-C614012301/LSZH	Category 6 F/UTP Patch Cord LSZH 01m	1m
OP-C614012302/LSZH	Category 6 F <mark>/UTP Patch Cord LSZH 02m</mark>	2m
OP-C614012303/LSZH	Category 6 F/UTP Patch Cord LSZH 03m	3m
OP-C614012305/LSZH	Category 6 F/UTP Patch Cord LSZH 05m	5m
OP-C614012310/LSZH	Category 6 F/UTP Patch Cord LSZH 10m	10m



# **Category 6 S/FTP Patch Cord**

**OPTIPLUS category 6 S/FTP Patch Cord** has high performance and immunity to electromagnetic interference. Optiplus foil-over shielded twisted pair patch cables are made by high quality foil/braid shielded patch cable and RJ45 shielded connectors. Optiplus patch cords are individually tested as per ANSI/TIA-568-C.2 channel standard which are compliant with RJ-45 modular plugs and it is tested for transmission frequencies of up to 250MHz.

## Standards

- ANSI/TIA-568-C.2
- TIA/EIA 568-B.2-1
- ISO/IEC 11801
- ISO/IEC 611156-2
- EN 50288-6-2
- IEEE /802.af, IEEE 802.3at for PoE applications

## Construction:



Conductor Material	23AWG Solid Bare Copper
Insulation Material	Cellular Polyolefin
Number of Conductors	8 Nos
Jacket and Boot Material	LSZH or PVC
Jacket and Boot Color	As per requirement
Cable Overall Diameter	6.0mm max.

## Electrical and Mechanical Characteristics:

- Impedance  $100 \Omega \pm 15\%$
- Frequency 1 MHz to 250 MHz
- OC Resistance 73 Ω/100m
- Mutual Capacitance 5.6nF/100m

- Propagation Delay Skew 35 nsec/100m
- Dielectric Strength 1KV/minute
- Operating Temperature -20°C to 60°C
- Storage Temperature 0°C to 80°C

PART NUMBER	DESCRIPTION	LENGTH
OP-C614042301/PVC	Cat <mark>egory 6 S/FTP Patch Cord PVC 0</mark> 1m	1m
OP-C614042302/PVC	Category 6 S/FTP Patch Cord PVC 02m	2m
OP-C614042303/PVC	Category 6 S/FTP Patch Cord PVC 03m	3m
OP-C614042305/PVC	Category 6 S/FTP Patch Cord PVC 05m	5m
OP-C614042310/PVC	Category 6 S/FTP Patch Cord PVC 10m	10m
OP-C614042301/LSZH	Category 6 S/FTP Patch Cord LSZH 01m	1m
OP-C614042302/LSZH	Category 6 S/FTP Patch Cord LSZH 02m	2m
OP-C614042303/LSZH	Category 6 S/FTP Patch Cord LSZH 03m	3m
OP-C614042305/ <mark>LSZH</mark>	Category 6 S/FTP Patch Cord LSZH 05m	5m
OP-C614042310/LSZH	Category 6 S/FTP Patch Cord LSZH 10m	10m



# **Category 6 UTP Keystone Jack**

**OPTIPLUS category 6 UTP Keystone Jack** is designed for superior performance in high-speed data, voice and image transmission. Includes 110-type IDC termination and comes standard with 50 µinch gold plating on the jack contacts. Optiplus jacks are fully compatible with Gigabit Ethernet and future applications. Designed and engineered to exceed all ANSI/TIA-568-C.2 category 6 requirements.

## Standards

- ANSI/TIA/EIA 568AB.2.2001
- ISO/IEC11801:2002
- EN50173-2 Category 6 standards
- IEEE 802.af, IEEE 802.3at for PoE applications

## Key Features:

- EIA/TIA 568A/B standard.
- Multi-purpose keystone design.
- Protection cap protects conductor termination points and controls cable entry.
- Balances signal transmission of insertion loss and crosstalk from 1 to 250MHz.
- Suitable for 23-24AWG stranded and solid wire.

## **Design & Materials:**

Colour	White/Black
Size	32mmX16mmX21mm
Orientation Angle	90 Degree
Housing Material	High impact thermoplastic, UL94V-0
IDC	Phosphor bronze with 50 micro-inch tin-lead plating
	over 50-60 micro-inch nickel plated
IDC Contact Area	Min 3mm 50 micro-inch gold plated over nickel plated
IDC Type	110 or low impact krone tool
Temperature -Storage	-40°C - +70°C
Temperature -Operation	<mark>0°C</mark> − +65°C
Colour Coding	As per 568 A/B standard

## Electrical and Mechanical Characteristics:

- Insertion Life : 750 cycles minimum
- Retention Force : 50 N
- Propagation Delay : 2.5nsec max./1-250MHz
- Current Rating: 1.5 Amps

- Insulation Resistance: 500 M Ω minimum
- Maximum Contact Resistance: 0.02 Ω
- Maximum DC Resistance: 0.1 Ω

PART NUMBER	DESCRIPTION
OP-C6130090	Category 6 UTP Keystone Jack
OP-C6130080S	Category 6 UTP Keystone Jack with shutter





# **Category 6 UTP Keystone Jack Tool Less**

**OPTIPLUS category 6 UTP Keystone Jack Tool Less** is designed for superior performance in high-speed data, voice and image transmission. The advanced pressing technology provides less insertion loss with 180 degree orientation and can easily terminate eight conductors at a time. Optiplus jacks are fully compatible with Gigabit Ethernet and future applications. Designed and engineered to exceed all ANSI/TIA-568-C.2 category 6 requirements.

## Standards

- ANSI/TIA/EIA 568AB.2.2001
- ISO/IEC11801:2002
- EN50173-2 Category 6 standards
- IEEE 802.af, IEEE 802.3at for PoE applications

## **Key Features:**

- EIA/TIA 568A/B standard.
- Multi-purpose keystone design.
- Protection cap protects conductor termination points and controls cable entry.
- Balances signal transmission of insertion loss and crosstalk from 1 to 250MHz.
- Suitable for 23-24AWG stranded and solid wire.

## **Design & Materials:**

Colour	White/Black	
Size	17mm x 35.15mm x 25.20mm	
Angle	180 Degree	
Housing Material	High impact thermoplastic, UL94V-0	
IDC	Phosphor bronze with 50 micro-inch tin-lead plating	
	over 50-60 micro-inch nickel plated	
IDC Contact Area	Min 3mm 50 micro-inch gold plated over nickel plated	
IDC Туре	Tool free with cap	
Temperature -Storage	-40°C - +70°C	
Temperature -Operation	0°C - +65°C	
Colour Coding	As per 568 A/B standard	

## **Electrical and Mechanical Characteristics:**

- Insertion Life : 750 cycles minimum
- Retention Force : 50 N
- Propagation Delay : 2.5nsec max./1-250MHz
- Current Rating: 1.5 Amps

- Insulation Resistance: 500 M Ω minimum
- Maximum Contact Resistance: 0.02 Ω
- Maximum DC Resistance: 0.1 Ω

## Ordering Information:

PART NUMBER	DESCRIPTION
OP-C6130080TL	Category 6 UTP Keystone Jack Tool Less





# **Category 6 STP Keystone Jack Tool Less**

**OPTIPLUS Category 6STP Keystone Tool Less Jack** is designed for superior performance in high-speed data, voice and image transmission. It is suitable for noisy environments by reducing the electromagnetic interferences. The advanced pressing technology provides less insertion loss with 180 degree orientation and can easily terminate eight conductors at a time. Optiplus jacks are fully compatible with Gigabit Ethernet and future applications. Designed and engineered to exceed all ANSI/TIA-568-C.2 category 6 requirements.

## Standards

- ANSI/TIA/EIA 568AB.2.2001
- ISO/IEC11801:2002
- IEC 60603 7
- EN50173-2 Category 6 standards
- IEEE 802.af, IEEE 802.3at for PoE applications

## **Key Features:**

- Follows EIA/TIA 568A/B standard.
- Multi-purpose keystone design.
- Transparent protection cap protects conductor termination points and controls cable entry.
- Balances signal transmission of insertion loss and crosstalk from 1 to 250MHz.

## **Design & Materials:**

Size	17mm x 41.15mm x 26mm	
Angle	180 Degree	
Housing Material	Zinc	
IDC	Phosphor bronze with 50 micro-inch tin-lead plating	
	over 50-60 micro-inch nickel plated	
IDC Contact Area	Min 3mm 50 micro-inch gold plated over nickel plated	
IDC Type	Tool free with cap	
Temperature -Storage	-40°C - +70°C	
Temperature - Operation	0°C - +65°C	
Colour Coding	As per 568 A/B standard	

## Electrical and Mechanical Characteristics:

- Insertion Life : 750 cycles minimum
- Retention Force : 50 N
- Propagation Delay : 2.5ns max./1-250MHz
- Current Rating: 1.5 Amps

- Solution Resistance: 500 M  $\Omega$  minimum
- Maximum Contact Resistance: 0.02 Ω
- Maximum DC Resistance: 0.1 Ω

PART NUMBER	DESCRIPTION
OP-C6130080STL	Category 6 STP Keystone Jack





# **Category 6 RJ 45 Connector**

**OPTIPLUS Category 6 RJ 45 Connector** can be used in Cat 6 compliant data networks. It simplifies the twisted pair terminations by allowing wires to be inserted through the connector. This allows the technician to easily verify the proper wiring order. Electrical performance of the termination is optimized by pulling the connector down over the cable jacket and seating it tightly in the rear of the connector.

## Standards

- ANSI/TIA-568-C.2
- ISO/IEC 11801
- EN 50173



## **Key Features:**

- **CONSTRUCTION :** High impact thermoplastic, UL94V-0 fire retardant PCB.
- JACK CONTACTS : Phosphor bronze, nickel plating with a minimum of 50 μin of gold plating in contact area.
- **IDC CONTACTS :** 110 type, phosphor bronze, nickel plating.
- **OPERATING TEMPERATURE :** -10 °C++60 °C (-14 °F++140 °F).

PART NUMBER	DESCRIPTION
OP-C6RJ45	Category 6 UTP RJ45 Connector



# **PVC Face Plate**

**OPTIPLUS Face Plates** are available in a wide range including, standard and compact designs with UK or EURO styles. Face Plates can accommodate all types of keystone jacks. The standard face plates are available in white high impact plastics and are ABS UL 94V-0 compliant. For labeling it features a designated space.



## Key Features:

- Available in single gang and double gang models.
- Shuttered and Non-Shuttered types are available.

## **Construction:**

Material	High impact thermoplastic (PVC) UL94V-0 fire retardant
Type of Face Plate	Euro or UK style
Operating Temperature	-10 °c-+60 °c
Colour	White or other as per request

## Dimension:

PRODUCT TYPE	DIMENSION	NO OF PORTS
Face Plate (UK Style)	86x86mm	1 or 2 ports
Face Plate (Euro Style)	80x80mm	1or 2 ports

PART NUMBER	DESCRIPTION	NUMBER OF PORTS
OP-FP868601	Face Plate with shutter	1 port
OP-FP868602	Face Plate with shutter	2 ports
OP-FP808001	Face Plate without shutter	1 port
OP-FP808002	Face Plate without shutter	2 ports



# **Category 6 Patch Panels (Loaded)**

**OPTIPLUS Category 6 Patch Panels (Loaded)** is developed for high-speed data, voice and image transmission. Optiplus patch panels facilitate a world-class installation for data centers and telecommunications rooms by offering an attractive appearance combined with flexible labeling options. 24-port and 48port Cat 6 patch panels are designed to mount to any standard 19" rack or cabinet. It is tested up to 250MHz range over 100m and fully compatible with Gigabit Ethernet and future application.

## Standards

- ANSI/TIA-568 C.2
- ANSI/TIA-1096-A
- ISO/IEC 11801:2002
- IEC 60603-7-4
- IEEE 802.3an
- IEEE 802.3af (PoE)
- IEEE 802.3at (PoE+)

## **Key Features:**

- EIA/TIA 568A/B standard.
- 6 Port component modules.
- Terminate from 26-22 AWG solid unshielded wires.
- Designated space for custom labeling.
- Integrated rear cable manager ensures proper cable management.
- Port numbering enables quick identification of outlets.
- Housing: ABS 94V-0/1/2.
- IDC: PC UL94V-0/1/2.
- Contacts: 0.35 mm (0.014") phosphor bronze with gold plating on contact area.
- Panel size : 19" with 1u and 2u.

PART NUMBER	DESCRIPTION	PORTS
OP-C6120024	Category 6 Loaded Patch Panel - 1u	24
OP-C6120048	Category 6 Loaded Patch Panel - 2u	48





# **Category 6 Patch Panels (Un-Loaded)**

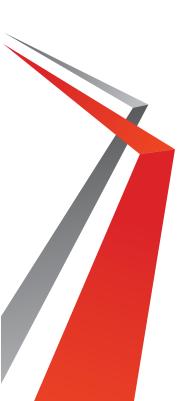
**OPTIPLUS Category 6 Patch Panels (Un -Loaded)** are designed to mount in any standard 19" width rack. Optiplus patch panel are used to fit your customized network or multimedia systems which jacks offers an attractive appearance combined with flexible labeling options. These panels have blank slots for fitting in keystone jacks.

## Key Features:

- Available in 24 ports with 1u.
- Integrated rear cable manager ensures proper cable management practices for all installations.
- Easy port labeling identification provision.
- Numeral marking of ports on the front side of the panel.
- Fits to any standard 19" rack.



PART NUMBER	DESCRIPTION	PORTS
OP-C6120024/UL	Category 6 Un Loaded Patch Panel - 1u	24





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