







#### **ABOUT OPTRONICS**

# About Us

Optronics is a brand of fibre optic and copper networking products, for use in local and wide area networking and telecommunications applications.

Since 1974, Optronics has used it's expertise to build a comprehensive range of high quality network communications products which includes patch cords, pigtails (multimode and singlemode), patch panels, wall and splice boxes (unloaded and customised), and a full range of accessories.

Based in Milton Keynes, UK, we have the facilities to support a vast array of customers; from small distributors and supporting specialist installers.

Optronics products are available directly or from distributors all over the world.

# **Our History**

- > Optronics founded in 1974
- Established a Base in Milton Keynes, which is central to all the major UK national and international transport hubs
- > Moved to a purpose built building in 2002

# **Our Capabilities**

- > Multilingual sales personnel
- > Largest termination capacity in Europe
- > Manufacturing across two continents
- > Several partnerships globally
- Proactively aiding our clients to secure new and existing customers through designing and manufacturing bespoke products in necessary quantites



Optronics Global HQ, Milton Keynes, UK

# A Global Company

- > 120 Sales Executives employed
- > 18 Languages spoken
- > 24 hour design and engineering support capability
- > Global logistics service
- > Regions Covered
  - North South America
  - Europe
  - Africa
  - Middle East
  - Australasia
- Optronics Limited. is registered in England and has regional offices in each major continent in the world.



# **Optronics** Copper Structured Cabling Solutions

# Contents

4
5
6
21
42
62
63
73
93
113

Page

#### **COPPER STRUCTURED CABLING | WARRANTY PROGRAMME**

# The Optronics Cabling System Warranty Explained:

At Optronics we offer one of the most complete warranty programmes available to the structured cabling industry. Our copper and fibre solutions are designed for performance and reliability and manufactured to comply with the latest national and international standards at the time of installation.

Optronics products exceed the performance requirements defined within ISO/IEC 11801, ANSI/EIA/TIA 568 and EN 50173 as applicable, and are warranted against failure for a period of 25 years from the date of installation. Furthermore, Optronics warranty that if the components are installed and tested by an Optronics approved partner, then the installed link will support,

- > The Optronics Cabling System Warranty is only available through Authorised Partners and Authorised Installers.
- > The Optronics Cabling System 25 year product and lifetime applications warranty commences upon completion of the installation the submission of the test results and the issue of the warranty certificate to the installation owner by Optronics.
- > Product Warranty: All Optronics products are warranted for a period of 25 years as being free from manufacturing defects that could jeopardise the mechanical, electrical or transmission line performance and reliability of the product when used appropriately.



for the lifetime of the installation, all applications that have been designed to run on the specific class/category of cabling system.

The Optronics copper and fibre structured cabling range represents the relentless pursuit by Optronics to bring quality and reliability to the market. Through world class engineering, we have confidence to stand behind our products for 25 years, in the full knowledge that they will continue to faultlessly delivering the applications for the which they were designed, for a life-time.

- > The Optronics Cabling System Warranty covers all passive optical and copper products supplied by Optronics under the Optronics brand.
- > Applications Warranty All Optronics products are warranted to support all and any application designed to operate over installed class of cabling system. In case of doubt a specific application reference should be made to ISO 11801, latest edition.
- > The Optronics Cabling System warranty can be transferred for the remaining life of the warranted products providing that Optronics is notified by the new building owner in writing within 30 days of taking ownership of the building.

# Limitations of the Warranty

This Warranty only covers the Installation as defined in the submitted dossier and specification. Any extensions or modifications to the Installation must be submitted to Optronics following the procedure listed in our warranty documentation. On review and acceptance, a new Certificate and Schedule will be issued.

# Becoming an Authorised Installer

- > Certification as an Authorised Installer must happen prior to project award. Any proposal that cannot be supported with the necessary training records will be rejected.
- > A potential Authorised Installer must be proposed by the Authorised Partner. The proposal should be supported by the completion of Appendix II of our detail warranty statement.
- > Upon satisfactory review of the potential installers details acceptance will be acknowledged by Optronics through the issue of a numbered authorised Installer certificate.







# Optronics Copper Cabling System

6

21

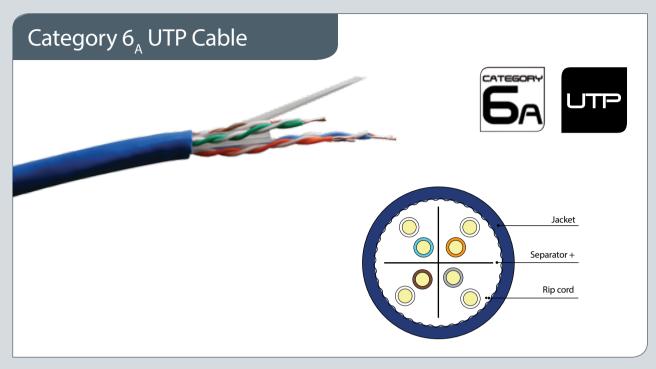
42

Category 6<sub>A</sub> Category 6 Category 5e

# Optronics Copper Cabling System Category 6

Cable	7
Patch Panels	9
UTP Keystone Jacks	11
UTP Loaded Faceplates	12
STP Keystone Jacks	14
STR Loaded Faceplates	15
Patch Cords	17

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A UTP CABLE**



Category  $6_A$  Unshielded Twisted Pair (UTP) cable is produced using a 4 x 2 x 23 AWG copper wire structure to a class EA

# Features

- > 23 AWG conductor (0.57mm) solid bare copper cable
- > PVC (LSZH and PE options available on request)
- > Supplied in 305m boxes or 500m reels
- > Printed metre marks

# Applications

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Horizontal and backbone installations
- > 10 Base T (IEEE 802.3)
- > 100 Base T (IEEE 802.3U)
- > 1000 Base T (IEEE 802.3ab)
- > 100 VG any LAN (IEEE 802.12)
- > Token ring (IEEE 805.5)
- > ATM 155
- > 10G Base T (IEEE 802.3an)

# Conformance

- > Category 6<sub>A</sub>
- > EIA/TIA 568B.2:2002
- > ISO/IEC 11801 : 2002
- > REACH

standard, and supports protocol's up to 500 MHz. It is ideal for horizontal and backbone installations.

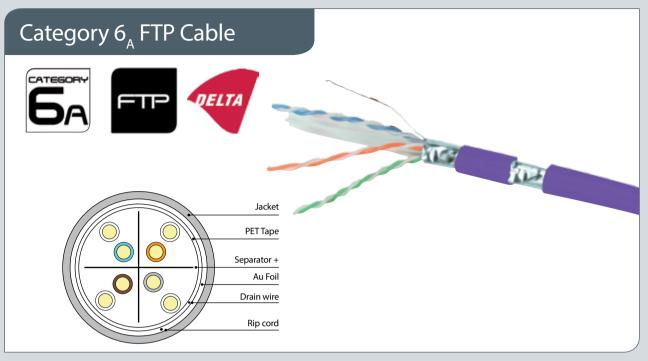
# **Technical Specifications**

CONSTRUC	TION	VALUE
	AWG	23
Conductors	Size (mm)	0.570
	Material	Solid Bare Copper
Insulators	Diameter (mm)	$1.01 \pm 0.02$
insulators	Material	HDPE
	External O.D.	$6.9 \pm 0.3$
Jacket	Thickness (mm)	$0.65 \pm 0.05$
	Surface	Clean, Frap, Satiation
	Material	PVC/LSZH/PE

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> Unshielded Twisted Pair (UTP) PVC 23 AWG cable - 305m Box	UTP6A305PVC
Category 6 <sub>A</sub> Unshielded Twisted Pair (UTP) LSZH 23 AWG cable - 305m Box	UTP6A305LSZH
Category 6 <sub>A</sub> Solid Unshielded Twisted Pair (UTP) 23 AWG cable 305m - Reels	UTP6A305PE
Category 6 <sub>A</sub> Unshielded Twisted Pair (UTP) PVC 23 AWG cable - 500m Box	UTP6A500PVC
Category 6 <sub>A</sub> Unshielded Twisted Pair (UTP) LSZH 23 AWG cable - 500m Box	UTP6A500LSZH
Category 6 <sub>A</sub> solid Unshielded Twisted Pair (UTP) 23 AWG cable - 500m - Reels	UTP6A500PE

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A FTP CABLE**



Category  $6_A$  Foiled Twisted Pair (FTP) cable is produced using a  $4 \times 2 \times 23$  AWG copper wire structure to a class EA standard, and

# Features

- > 23 AWG conductor (0.57mm) solid bare copper cable
- > PVC (LSZH and PE options available on request)
- > Supplied in 305m boxes or 500m reels
- > Printed metre marks

# **Applications**

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Ideal for environments where heavy external interference can disrupt signal such as EMI
- > Horizontal and backbone installations
- > 10 Base T (IEEE 802.3)

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> Foiled Twisted Pair (FTP) PVC - 23 AWG cable - 305m Box	FTP6A305PVC
Category 6 <sub>A</sub> Foiled Twisted Pair (FTP) LSZH - 23 AWG cable - 305m Box (Delta Approved)	FTP6A305LSZH
Category 6 <sub>A</sub> solid Foiled Twisted Pair (FTP) 23 AWG cable - 305m Box	FTP6A305PE
Category 6 <sub>A</sub> Foiled Twisted Pair (FTP) PVC 23 AWG cable - 500m Box	FTP6A500PVC
Category 6 <sub>A</sub> Foiled Twisted Pair (FTP) LSZH 23 AWG cable - 500m Box (Delta Approved)	FTP6A500LSZH
Category 6 <sub>A</sub> solid Foiled Twisted Pair (FTP) 23 AWG cable - 500m Box	FTP6A500PE

supports protocol's up to 500 MHz. It is ideal for horizontal and backbone installations.

# Conformance

- > Category 6<sub>A</sub>
- > EIA/TIA 568B.2:2002
- > ISO/IEC 11801 : 2002
- > RoHS / REACH
- > 100 Base T (IEEE 802.3U)
- > 1000 Base T (IEEE 802.3ab)
- > 100 VG any LAN (IEEE 802.12)
- > Token ring (IEEE 805.5)
- > ATM 155
- > 10G Base T (IEEE 802.3an)

# **Technical Specifications**

CONSTRUC	TION	VALUE
	AWG	23
Conductors	Size (mm)	0.570
	Material	Solid Bare Copper
Less de Less	Diameter (mm)	1.09 ± 0.02
Insulators	Material	HDPE
	External O.D.	7.4 ± 0.3
Jacket	Thickness (mm)	$0.60 \pm 0.05$
Jacket	Surface	Clean, Frap, Satiation
	Material	PVC/LSZH/PE

# **Optronics Category 6**<sub>A</sub>

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A UTP KEYSTONE JACK PATCH PANEL**



Category  $6_A$  Unshielded Twisted Pair (UTP) tool free patch panels conform to class EA performance. These panels offer termination using the latest in tool free keystone jack technology. The use of an insertion tool is not required when terminating these panels.

# Features

- > RJ45 24 port fully loaded 1U Panel
- > Saves valuable installation time
- > Supplied with fixings
- > Loaded with 180° tool free keystone jacks
- > 19" rack mountable
- > Rear cable management bar included
- > Port numerically identified

# **Applications**

- > Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Able to connect FCC Port for category  $6_{A}$  UTP patch cords
- > IDC for horizontal distribution cables

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> UTP Full Loaded 1U 24 Port patch panel Black	CAT6AUTP24

All 8 wires can be loaded and terminated simultaneously, drastically reducing installation time. Available in 1U 24 port format, panels are supplied fully loaded with rear management bars and fixings.

# Conformance

- > Category 6
- > EIA/TIA 568A/B wiring standard
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2:2002

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PC UL94V-0	
Panel Frame	Carbon Steel Frame, Plastic Coated Clad	
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
Contact Material	Phosphor Bronze + Gold Plating 0.50mm	
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 250 Terminations	

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A STP TOOL FREE PANEL**

# Category 6<sub>A</sub> STP Tool Free Panel



Category  $6_A$  Shielded Twisted Pair (STP) tool free patch panels conform to class EA performance. These panels offer termination using the latest in tool free keystone jack technology. The use of an insertion tool is not required when termination these panels.

Features

- > RJ45 24 port fully loaded 1U Panel
- > Saves valuable installation time
- > Supplied with fixings
- > Loaded with 180° tool free keystone jacks
- > 19" rack mountable
- > Rear cable management bar included
- > Port numerically identified

# **Applications**

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Able to connect FCC port for category 6, STP patch cords
- > IDC for horizontal distribution cables

# Conformance

- > Category 6<sub>A</sub>
- > EIA/TIA 568A/B wiring standard
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568B.2:2002
- > RoHS

**Optronics Category 6**<sub>A</sub>

10

All 8 wires can be loaded and termination simultaneously, drastically reducing installation time. Available in 1U 24 port format, panels are supplied fully loaded with rear management bars and fixings.

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PC UL94V-0	
Panel Frame	High carbon, Plastic Powder Clad	
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
Contact Material	Phosphor Bronze + Gold Plating 0.50mm	
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 200 Terminations	

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> STP Full Loaded 1U 24 Port patch panel Black	CAT6ASTP24TJ

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A UTP KEYSTONE JACK**

# Category 6<sub>A</sub> UTP Keystone Jack



Representative image of a loaded angled module with a category  $6_A$  UTP keystone jack (please note angled module is sold separately).





Category  $6_A$  Unshielded Twisted Pair (UTP) keystone jacks conform to class EA performance. They follow the industry standard keystone jack footprint and the small design makes

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PC UL94V-0	
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
Contact Material	Phosphor Bronze + Gold Plating 0.50mm	
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 250 Terminations	

them the ideal for high density applications. Each keystone jack is available with wiring diagram and conductor protection cap and can be supplied in black or white variants.

#### Features

- > Small form RJ45 footprint design
- > IDC punch down
- > 180° termination
- > High performance
- > Available in black/white
- > Wiring diagram and conductor cap supplied
- > Supplied in boxes of 20pcs
- A compact design, with punching sequence direction marks on the side of the keystone jack

# Applications

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Ideal for high density installations

## Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Optronics Category 6**<sub>a</sub>

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> UTP keystone jack White Box of 20pcs	CAT6AJACK180WH
Category 6 <sub>A</sub> UTP keystone jack Black Box of 20pcs	САТ6АЈАСК180ВК

#### **OPTRONICS COPPER CABLING SYSTEM | CAT6A UTP BEVELLED LOADED FACEPLATES**

# Category 6<sub>A</sub> UTP Bevelled Loaded Faceplates



FACEPLATE2PBEV Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT6AFACE1PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE2PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE4PBEVJ Angled module and jack 86x147mm - Box of 10pcs



#### Features

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Backwards compatible with category 6 distribution systems

# Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material PC UL94V-0		
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
Contact Material Phosphor Bronze + Gold Plating G		
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 250 Terminations	

**Optronics Category 6<sub>A</sub>** 

#### **OPTRONICS COPPER CABLING SYSTEM | CAT6A UTP FLAT LOADED FACEPLATES**

# Category 6<sub>A</sub> UTP Flat Loaded Faceplates



FACEPLATE2PFLAT Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PFLAT Double gang - 4 position 86x147mm - Box of 10pcs



- > Fully loaded / completed outlets
- Reduced installation time >
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

- > Supports category 6, networks running up to 500 MHz applications
- Backwards compatible with category 6 distribution > systems

# Conformance

- Category 6 >
- > ISO/IEC 11801 : 2002
- ANSI/EIA/TIA 568B.2 : 2002 >
- > RoHS

# **Technical Specifications**

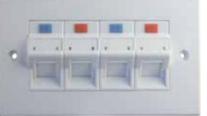
MECHANICAL	VALUE	
Housing Material	PBT + 15% GF UL94V-0	
IDC Material Phosphor Bronze Stamp Pin 0.35m		
Contact Material Phosphor Bronze + Gold Plating		
RJ45 Jack Life Min 750 Insertions		
IDC Life	Min 250 Terminations	



CAT6AFACE1PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE2PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE4PFLTJ Angled module and jack 86x147mm - Box of 10pcs



FACEPLATE1SL 86x86mm - Box of 10pcs



FACEPLATE2SL 86x86mm - Box of 10pcs



ANGLEDMODULE Box of 20pcs







All loaded faceplates include this style of keystone jack



#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A STP KEYSTONE JACK**

# Category 6<sub>A</sub> STP Keystone Jack



Category 6<sub>A</sub> Shielded Twisted Pair (STP) keystone jacks conform to class EA performance. They follow the industry standard keystone jack footprint, the small form design making them perfect for high density applications. Each keystone jack is available with 180° termination design, wiring diagram and conductor protection cap.

## Features

- > Small form RJ45 footprint design
- > IDC punch down
- > 180° termination
- > High performance
- > Wiring diagram and conductor cap supplied
- > Supplied in boxes of 20pcs
- A compact design, with punching sequence direction marks on the side of the keystone jack

# Applications

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Ideal for high density installations

## Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL VALUE		
Housing Material	PC UL94V-0	
IDC Material Phosphor Bronze Stamp Pin 0.35m		
Contact Material Phosphor Bronze + Gold Plating 0.5		
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 250 Terminations	

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> STP keystone jack - Box of 20pcs	CAT6ASTPTJ

**Optronics Category 6**<sub>A</sub>

#### **OPTRONICS COPPER CABLING SYSTEM | CAT6A STP BEVELLED LOADED FACEPLATES**

# Category 6<sub>A</sub> STP Bevelled Loaded Faceplates



FACEPLATE2PBEV Single gang - 2 position 86x86mm - Box of 10pcs



CAT6AFACE1PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE2PBEVJ Angled module and jack 86x86mm - Box of 10pcs



ANGLEDMODULE

Box of 20pcs

SINGLEBLANK 50x12.5mm

Box of 100pcs

HALFBLANK

Box of 50pcs

All loaded faceplates include this style of keystone jack

50x25mm

FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT6AFACE4PBEVJ Angled module and jack 86x147mm - Box of 10pcs



- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

- Supports category 6<sub>A</sub> networks running up to 500 MHz applications
- > Backwards compatible with category 6 distribution systems

# Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PC UL94V-0	
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
Contact Material	Phosphor Bronze + Gold Plating 0.50mm	
RJ45 Jack Life	Min 750 Insertions	
IDC Life Min 250 Terminations		



#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A STP FLAT LOADED FACEPLATES**

# Category 6<sub>A</sub> STP Flat Loaded Faceplates



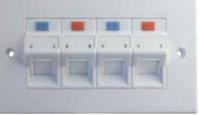
FACEPLATE2PFLAT Single gang - 2 position 86x86mm - Box of 10pcs



CAT6AFACE1PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE2PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6AFACE4PFLTJ Angled module and jack 86x147mm - Box of 10pcs

## **Features**

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

- > Supports category 6, networks running up to 500 MHz applications
- Backwards compatible with category 6 distribution > systems

## Conformance

- Category 6 >
- ISO/IEC 11801 : 2002 >
- ANSI/EIA/TIA 568B.2:2002 >
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PBT + 15% GF UL94V-0	
IDC Material Phosphor Bronze Stamp Pin 0.35		
Contact Material	Phosphor Bronze + Gold Plating 0.50mm	
RJ45 Jack Life Min 750 Insertions		
IDC Life	Min 250 Terminations	





FACEPLATE1SL 86x86mm - Box of 10pcs

FACEPLATE2SL 86x86mm - Box of 10pcs



ANGLEDMODULE Box of 20pcs

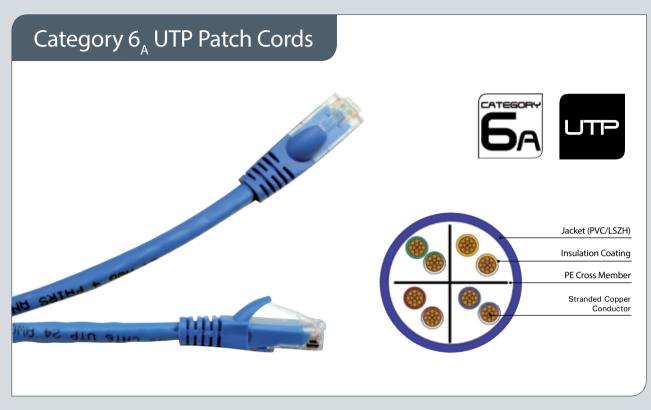
All loaded faceplates include this style of keystone jack

HALFBLANK 50x25mm

Box of 50pcs

SINGLEBLANK 50x12.5mm Box of 100pcs

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A UTP PATCH CORDS**



Category  $6_A$  Unshielded Twisted Pair (UTP) patch cords conform to class EA standards. Our patch cords are made to the highest standards using only quality stranded cable, giving them the best in flexibility, plus top grade 50µ gold plated RJ45 connector plugs for high quality connections. This combination makes for outstanding performance and reduced degradation.

# All patch cords are produced with an injection moulded boot with an easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend these as part of a full Optronics category $6_A$ system.

# Technical Specifications

CONSTRUCTION		VALUE
	AWG	24
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC

# Features

- > Quality 24 AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > Injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# Applications

- Supports category 6<sub>A'</sub> 6 and 5e networks running up to 500 MHz applications
- Backwards compatible with category 6 distribution systems

# Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A UTP PATCH CORDS**

# Category 6<sub>A</sub> UTP Patch Cords

# PVC

	PART NUMBER	METRE
	UTP6ABL0.5-PVC	0.5
	UTP6ABL1-PVC	1
BLUE	UTP6ABL2-PVC	2
B	UTP6ABL3-PVC	3
	UTP6ABL5-PVC	5
	UTP6ABL10-PVC	10
	UTP6AGN0.5-PVC	0.5
	UTP6AGN1-PVC	1
GREEN	UTP6AGN2-PVC	2
GRE	UTP6AGN3-PVC	3
	UTP6AGN5-PVC	5
	UTP6AGN10-PVC	10
	UTP6AOR0.5-PVC	0.5
	UTP6AOR1-PVC	1
DRANGE	UTP6AOR2-PVC	2
ORA	UTP6AOR3-PVC	3
	UTP6AOR5-PVC	5
	UTP6AOR10-PVC	10

# LSZH

	PART NUMBER	METRE
	UTP6ABL0.5-LSZH	0.5
	UTP6ABL1-LSZH	1
BLUE	UTP6ABL2-LSZH	2
BL	UTP6ABL3-LSZH	3
	UTP6ABL5-LSZH	5
	UTP6ABL10-LSZH	10
	UTP6AGN0.5-LSZH	0.5
	UTP6AGN1-LSZH	1
GREEN	UTP6AGN2-LSZH	2
GRE	UTP6AGN3-LSZH	3
	UTP6AGN5-LSZH	5
	UTP6AGN10-LSZH	10
	UTP6AOR0.5-LSZH	0.5
	UTP6AOR1-LSZH	1
ORANGE	UTP6AOR2-LSZH	2
DRA	UTP6AOR3-LSZH	3
	UTP6AOR5-LSZH	5
	UTP6AOR10-LSZH	10

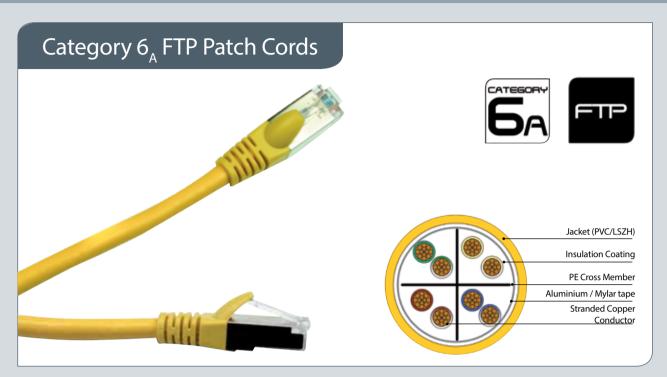
	PART NUMBER	METRE
	UTP6AYE0.5-PVC	0.5
	UTP6AYE1-PVC	1
VELLOW	UTP6AYE2-PVC	2
YELI	UTP6AYE3-PVC	3
	UTP6AYE5-PVC	5
	UTP6AYE10-PVC	10
	UTP6ARD0.5-PVC	0.5
	UTP6ARD1-PVC	1
RED	UTP6ARD2-PVC	2
2	UTP6ARD3-PVC	3
	UTP6ARD5-PVC	5
	UTP6ARD10-PVC	10
	UTP6AWH0.5-PVC	0.5
	UTP6AWH1-PVC	1
WHITE	UTP6AWH2-PVC	2
¥	UTP6AWH3-PVC	3
	UTP6AWH5-PVC	5
	UTP6AWH10-PVC	10

	PART NUMBER	METRE
	UTP6AGY0.5-PVC	0.5
	UTP6AGY1-PVC	1
GREY	UTP6AGY2-PVC	2
ម	UTP6AGY3-PVC	3
	UTP6AGY5-PVC	5
	UTP6AGY10-PVC	10
	UTP6ABK0.5-PVC	0.5
	UTP6ABK1-PVC	1
BLACK	UTP6ABK2-PVC	2
BLA	UTP6ABK3-PVC	3
	UTP6ABK5-PVC	5
	UTP6ABK10-PVC	10

	PART NUMBER	METRE
	UTP6AYE0.5-LSZH	0.5
	UTP6AYE1-LSZH	1
VELLOW	UTP6AYE2-LSZH	2
YELI	UTP6AYE3-LSZH	3
	UTP6AYE5-LSZH	5
	UTP6AYE10-LSZH	10
	UTP6ARD0.5-LSZH	0.5
	UTP6ARD1-LSZH	1
RED	UTP6ARD2-LSZH	2
R	UTP6ARD3-LSZH	3
	UTP6ARD5-LSZH	5
	UTP6ARD10-LSZH	10
	UTP6AWH0.5-LSZH	0.5
	UTP6AWH1-LSZH	1
NHITE	UTP6AWH2-LSZH	2
¥	UTP6AWH3-LSZH	3
	UTP6AWH5-LSZH	5
	UTP6AWH10-LSZH	10

	PART NUMBER	METRE
	UTP6AGY0.5-LSZH	0.5
	UTP6AGY1-LSZH	1
Ε	UTP6AGY2-LSZH	2
GREY	UTP6AGY3-LSZH	3
	UTP6AGY5-LSZH	5
	UTP6AGY10-LSZH	10
	UTP6ABK0.5-LSZH	0.5
	UTP6ABK1-LSZH	1
BLACK	UTP6ABK2-LSZH	2
BLA	UTP6ABK3-LSZH	3
	UTP6ABK5-LSZH	5
	UTP6ABK10-LSZH	10

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A FTP PATCH CORDS**



Category  $6_A$  Foiled Twisted Pair (FTP) patch cords conform to class EA standards. Our patch cords are made to the highest standards, using only quality stranded cable, giving you the best in flexibility, plus top grade 50µ gold plated RJ45 connector plugs for high quality connections. This combination makes for outstanding performance and reduced degradation. Aluminium tape is used to shield all 4 pairs; this gives a screened protection against external interference such as EMI.

All patch cords are produced with an injection moulded boot with easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend you use these as part of a full Optronics category  $6_A$  system.

# Technical Specifications

CONSTRUCTION		VALUE
	AWG	26
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC
Таре	Material	Aluminium Mylar
	Coverage (%)	125

# Features

- > Quality 26 AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > Injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# **Applications**

- Supports category 6<sub>A</sub>, 6 and 5e networks running up to 500 MHz applications
- Ideal for environments where heavy external interference can disrupt signal such as EMI
- > Backwards compatible with category 6, distribution system

## Conformance

- > Category 6<sub>A</sub>
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6A FTP PATCH CORDS**

# Category 6<sub>A</sub> FTP Patch Cords

# PVC

	PART NUMBER	METRE
	FTP6ABL0.5-PVC	0.5
	FTP6ABL1-PVC	1
BLUE	FTP6ABL2-PVC	2
BL	FTP6ABL3-PVC	3
	FTP6ABL5-PVC	5
	FTP6ABL10-PVC	10
	FTP6AGN0.5-PVC	0.5
	FTP6AGN1-PVC	1
GREEN	FTP6AGN2-PVC	2
GRE	FTP6AGN3-PVC	3
	FTP6AGN5-PVC	5
	FTP6AGN10-PVC	10
	FTP6AOR0.5-PVC	0.5
	FTP6AOR1-PVC	1
NGE	FTP6AOR2-PVC	2
ORANGE	FTP6AOR3-PVC	3
0	FTP6AOR5-PVC	5
	FTP6AOR10-PVC	10

	PART NUMBER	METRE
	FTP6AYE0.5-PVC	0.5
	FTP6AYE1-PVC	1
VELLOW	FTP6AYE2-PVC	2
	FTP6AYE3-PVC	3
	FTP6AYE5-PVC	5
	FTP6AYE10-PVC	10
	FTP6ARD0.5-PVC	0.5
	FTP6ARD1-PVC	1
RED	FTP6ARD2-PVC	2
8	FTP6ARD3-PVC	3
	FTP6ARD5-PVC	5
	FTP6ARD10-PVC	10
	FTP6AWH0.5-PVC	0.5
	FTP6AWH1-PVC	1
NHITE	FTP6AWH2-PVC	2
H۲.	FTP6AWH3-PVC	3
	FTP6AWH5-PVC	5
	FTP6AWH10-PVC	10

PART NUMBER	METRE
FTP6AGY0.5-PVC	0.5
FTP6AGY1-PVC	1
FTP6AGY2-PVC	2
FTP6AGY3-PVC	3
FTP6AGY5-PVC	5
FTP6AGY10-PVC	10
FTP6ABK0.5-PVC	0.5
FTP6ABK1-PVC	1
FTP6ABK2-PVC	2
FTP6ABK3-PVC	3
FTP6ABK5-PVC	5
FTP6ABK10-PVC	10
	FTP6AGY0.5-PVC         FTP6AGY1-PVC         FTP6AGY2-PVC         FTP6AGY3-PVC         FTP6AGY5-PVC         FTP6AGY10-PVC         FTP6ABK0.5-PVC         FTP6ABK1-PVC         FTP6ABK2-PVC         FTP6ABK3-PVC         FTP6ABK3-PVC

# LSZH

	PART NUMBER	METRE
	FTP6ABL0.5-LSZH	0.5
	FTP6ABL1-LSZH	1
BLUE	FTP6ABL2-LSZH	2
ВГ	FTP6ABL3-LSZH	3
	FTP6ABL5-LSZH	5
	FTP6ABL10-LSZH	10
	FTP6AGN0.5-LSZH	0.5
	FTP6AGN1-LSZH	1
GREEN	FTP6AGN2-LSZH	2
GRE	FTP6AGN3-LSZH	3
	FTP6AGN5-LSZH	5
	FTP6AGN10-LSZH	10
	FTP6AOR0.5-LSZH	0.5
	FTP6AOR1-LSZH	1
ORANGE	FTP6AOR2-LSZH	2
DRA	FTP6AOR3-LSZH	3
0	FTP6AOR5-LSZH	5
	FTP6AOR10-LSZH	10

	PART NUMBER	METRE
	FTP6AYE0.5-LSZH	0.5
	FTP6AYE1-LSZH	1
VELLOW	FTP6AYE2-LSZH	2
EL	FTP6AYE3-LSZH	3
	FTP6AYE5-LSZH	5
	FTP6AYE10-LSZH	10
	FTP6ARD0.5-LSZH	0.5
	FTP6ARD1-LSZH	1
<u>e</u>	FTP6ARD2-LSZH	2
RED	FTP6ARD3-LSZH	3
	FTP6ARD5-LSZH	5
	FTP6ARD10-LSZH	10
	FTP6AWH0.5-LSZH	0.5
	FTP6AWH1-LSZH	1
WHITE	FTP6AWH2-LSZH	2
M	FTP6AWH3-LSZH	3
	FTP6AWH5-LSZH	5
	FTP6AWH10-LSZH	10

	PART NUMBER	METRE
	FTP6AGY0.5-LSZH	0.5
	FTP6AGY1-LSZH	1
GREY	FTP6AGY2-LSZH	2
ß	FTP6AGY3-LSZH	3
	FTP6AGY5-LSZH	5
	FTP6AGY10-LSZH	10
	FTP6ABK0.5-LSZH	0.5
	FTP6ABK1-LSZH	1
Š	FTP6ABK2-LSZH	2
BLACK	FTP6ABK3-LSZH	3
	FTP6ABK5-LSZH	5
	FTP6ABK10-LSZH	10

# Optronics Copper Cabling System Category 6

Cable	22
Patch Panels	24
UTP Keystone Tool Free Jacks	29
STP Keystone Jacks	30
UTP Keystone Jacks	31
UTP Loaded Faceplates	32
Euro Modules	34
Loaded Euro Faceplates	35
Patch Cords	38
	13133221

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP CABLE**

# Category 6 UTP Cable Image: Comparison of the second sec

Category 6 Unshielded Twisted Pair (UTP) cable is produced using  $4 \times 2 \times 23$  AWG copper wire structure to a class E standard.

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	23
Conductors	Size (mm)	0.565
	Material	Solid Bare Copper
Insulators	Diameter (mm)	1.03+/-0.02
Insulators	Material	HDPE
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.55
	Material	PVC/LSZH/PE

Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair (UTP) 23 AWG cable PVC Grey - 305m box - ETL, UL approved	UTP6305PVC
Category 6 Unshielded Twisted Pair (UTP) 23 AWG cable LSZH Violet - 305m box - ETL approved	UTP6305LSZH
Category 6 solid Unshielded Twisted Pair 23 AWG cable LSZH Grey - 500m reels - ETL approved	UTP6500LSZH/GRY
Category 6 Unshielded Twisted Pair (UTP) External Grade 23 AWG cable - PE black 305m box	UTP6305EXT

More than capable of supporting protocol's up to 250 MHz for horizontal and backbone installations.

#### Features

- > 23 AWG conductor solid bare copper cable
- > PVC, LSZH and PE options
- > Supplied in 305m boxes or 500m reels
- > Printed metre marks

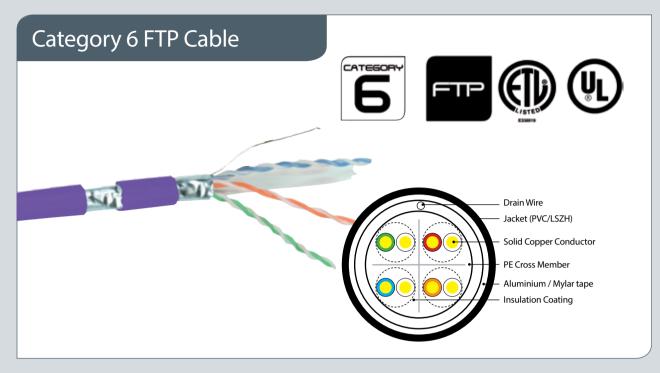
# Applications

- Supports category 6 (class E) networks running up to 250MHz applications
- Backwards compatible with category 5e distribution systems
- > Horizontal and backbone installations
- > 10 Base T (IEEE 802.3)
- > 100 Base T (IEEE 802.3U)
- > 1000 Base T (IEEE 802.3ab)
- > 100 VG any LAN (IEEE 802.12)
- > Token ring (IEEE 805.5)

# Conformance

- > Category 6
- > ANSI/EIA/TIA 568B.2 : 2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > REACH
- > ETL/UL approved

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 FTP CABLE**



Category 6 Foiled Twisted Pair (FTP) cable is produced using 4 x 2 x 23 AWG copper to a class E standard. An aluminium tape is used to shield all 4 pairs; this gives a screened protection

# Features

- > 23 AWG conductor solid bare copper cable
- > PVC, LSZH and PE options
- > Supplied in 305m boxes or 500 reels
- > Printed metre marks

# Applications

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems
- > Horizontal and backbone installations
- > 10 Base T (IEEE 802.3)
- > 100 Base T (IEEE 802.3U)
- > 1000 Base T (IEEE 802.3ab)
- > 100 VG any LAN (IEEE 802.12)
- > Token ring (IEEE 805.5)

# Conformance

- > Category 6
- > ANSI/EIA/TIA 568B.2:2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > REACH
- > ETL/UL approved

against external interference such as EMI. Capable of supporting protocol's up to 250 MHz for horizontal and backbone installations.

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	23
Conductors	Size (mm)	0.57
	Material	Solid Bare Copper
	Diameter (mm)	1.08 +/- 0.02
Insulators	Material	HDPE
lacket	Material	Polyester + Aluminium Foil
	External O.D.	7.4 +/- 0.3
Jacket	Thickness (mm)	0.60 +/- 0.05
	Material	PVC / LSZH / PE

Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Foiled Twisted Pair (FTP) 23 AWG cable PVC Grey 305m box - ETL, UL approved	FTP6305PVC
Category 6 Foiled Twisted Pair (FTP) 23 AWG cable LSZH Violet - 305m box	FTP6305LSZH
Category 6 Foiled Twisted Pair (FTP) External Grade 23 AWG cable - PE black 305m box	FTP6350EXT

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP KEYSTONE JACK PATCH PANEL**



Category 6 modular keystone jack Unshielded Twisted Pair (UTP) patch panels conform to class E performance. Each port is made up from individual modular RJ45 keystone jacks. Each

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Panel Frame	Carbon Steel Frame, Plastic Powder Clad
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair (UTP) Fully Loaded 1U 24 port patch panel - UL approved	CAT6+UTP24K
Unloaded 1U 24 Port Keystone Panel Frame for use with keystone jacks	PANEL24KEYSTONE

jack can be easily removed from the patch panel for individual termination and has a wiring diagram to assist termination to either 568A or B wiring standards.

#### Features

- > RJ45 24 port fully loaded 1U panel
- > 19" rack mountable
- > Krone style IDC
- > Rear cable management bar included
- > Supplied with fixings
- > Ports numerically identified

# **Applications**

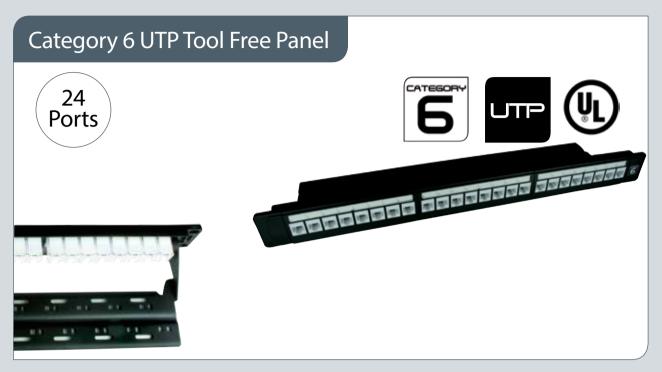
- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > EN50173-1:2002
- > EIA/TIA 568A/B Wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > UL approved

24

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP TOOL FREE PANEL**



Category 6 Unshielded Twisted Pair (UTP) tool free patch panels conform to class E performance. These panels offer termination using the latest in tool free keystone jack technology.

## Features

- > RJ45 24 port fully loaded 1U panel
- > 19" rack mountable
- > Saves valuable installation time
- > Supplied with fixings
- > Loaded with 180° tool free keystone jacks
- > Ports numerically identified
- > Includes rear cable management bar

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS
- > UL approved

The use of an insertion tool is not required when terminating these panels. Available in a 1U 24 port format, panels are supplied fully loaded with rear management bars and fixings.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Panel Frame	Carbon Steel Frame, Plastic Powder Clad
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

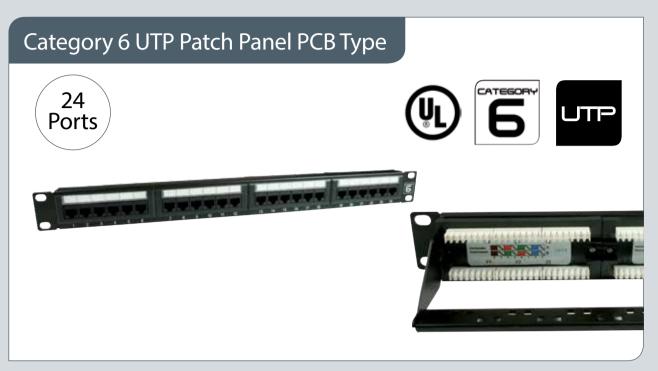
# Ordering Information

 
 DESCRIPTION
 PART NUMBER

 Category 6 Unshielded Twisted Pair UTP Tool Free Keystone 1U 24 port patch panel - UL approved
 CAT6+UTP24TJ

25

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP PATCH PANEL**



Category 6 Printed Circuit Board (PCB) Unshielded Twisted Pair (UTP) patch panels conform to class E performance. Backwards compatible with category 5e distribution systems. The PCB is fully sealed for extra protection, and in-line IDC

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
Panel Frame	Carbon Steel, Powder Coating
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Nickel Plating
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 200 Terminations

blocks. Wiring diagram, assists termination to either 568A or B wiring standards. Available in 1U 24 port or 2U 48 port. All panels are supplied with rear cable management bars and fixings.

#### Features

- > 19" rack mountable
- > Ports numerically identified
- > RJ45 24 port 1U or 48 port 2U options
- > 110 style IDC punch down
- > Removable label area
- > Supplied with fixings
- > Rear cable management bar included

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B Wiring standard
- ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS

**PART NUMBER** 

CAT6+UTP24PCB

CAT6+UTP48PCB

> UL approved

# **Optronics Category 6**

# www.optronicsnet.com

**Ordering Information** 

Category 6 1U 24 Port Printed Circuit Board (PCB)

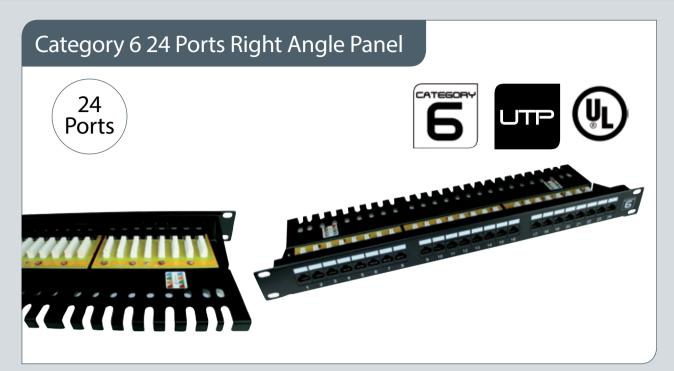
Category 6 2U 48 Port Printed Circuit Board (PCB)

DESCRIPTION

patch panel - UL approved

patch panel - UL approved

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 24 PORTS RIGHT ANGLE PANEL**



Category 6 Unshielded Twisted Pair (UTP) patch panels conform to class E performance. Each panel is produced using a right angled (90°) frame design for flat termination onto the IDC blocks. This ensures termination and general management is quick and easy when

working with bulky horizontal cables. Integral cable management also provides a solid platform for fixing and managing cable entry. Each port has its own 8 pin IDC block including a wiring diagram. Available in 1U 24 port format, panels are supplied with fixings.

# Features

- > 19" rack mountable
- > Integral cable management
- > RJ45 24 port 1U
- > Ports numerically identified
- > Right angle (90°) design
- > Printed label area
- > Supplied with fixings

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS
- > UL approved

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Panel Frame	Zinc Plating, Powder Coating
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Nickel Plating
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 200 Terminations

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair (UTP) 1U 24 Port 90 degree patch panel UL approved	CAT6+UTP24RA

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 STP PATCH PANEL**

# Category 6 STP Patch Panel



Category 6 Shielded Twisted Pair (STP) patch panels conform to class E performance and are backwards compatible with category 5e distribution systems. Each shielded panel is produced using a right angled (90°) frame design for flat termination onto the IDC blocks. This ensures termination, grounding and general management is guick and easy, when

# **Technical Specifications**

MECHANICAL	VALUE	
Housing Material	PC UL94V-0	
Panel Frame	Zinc Plating, Powder Coating	
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Nickel Plating	
IDC Material	Phosphor Bronze Stamp Pin 0.35mm	
RJ45 Jack Life	Min 750 Insertions	
IDC Life	Min 200 Terminations	

working with category 6 shielded cables. Cable grounding is achieved by using the shielding clamps located to the rear of the integral cable management. Each port has its own 8 pin IDC block. The panel includes an overall sliding cover which gives extra screening against EMI and protects the terminations.

#### Features

- > 19" rack mountable
- > Ports numerically identified
- > RJ45 24 port 1U
- > Right angle (90°) design
- > Supplied with fixings and earthing wire
- > Integral cable management
- > Grounding clamps

# Applications

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems
- > Fully screened for EMI protection

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B Wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS

PART NUMBER

CAT6+STP24

> UL approved

# www.optronicsnet.com

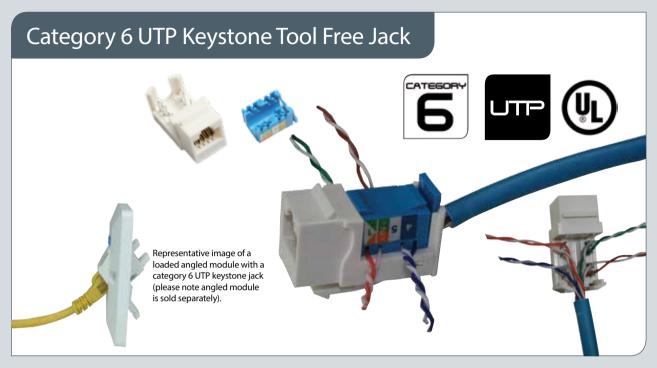
**Ordering Information** 

Category 6 Shielded Twisted Pair (STP) 1U 24 Port

DESCRIPTION

patch panel - UL approved

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP KEYSTONE TOOL FREE JACK**



Category 6 Unshielded Twisted Pair (UTP) tool free keystone jacks conform to class E standards. They follow the industry standard RJ45 footprint and, due to the small form design, they

are perfect for high density Applications. The keystone jack requires no insertion tool for termination.

## Features

- > Small form RJ45 footprint design
- > 180° termination
- > IDC tool free punch down
- > Reduces installation time
- > Supplied in boxes of 20pcs
- > Wiring diagram and conductor cap supplied

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- > Ideal for high density installations
- Backwards compatible with category 5e distribution system

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > UL approved

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 200 Terminations

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair Free keystone jack – White - Box of 20pcs - UL approved	CAT6+JACKTJ

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 STP KEYSTONE JACK**





Category 6 Shielded Twisted Pair (STP) keystone jacks conform to class E performance. They follow the industry standard RJ45

footprint and due to the small form design they are perfect for high density applications.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Shielding Material	Brass 0.30mm + Nickel Plating
Insert Material	Flame retardancy ABS UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

#### **Features**

- Small form RJ45 footprint design >
- > 90° termination
- > High performance
- Fully shielded for EMI protection >
- > Wiring diagram and conductor cap supplied
- 110 style IDC punch down >

# **Applications**

- > Supports category 6 (class E) networks running up to 250 MHz applications
- Ideal for high density installations >
- Ideal for environments sensitive to EMI >
- > Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- ISO/IEC 11801:2002 >
- ANSI/EIA/TIA 568B.2:2002 >
- RoHS >

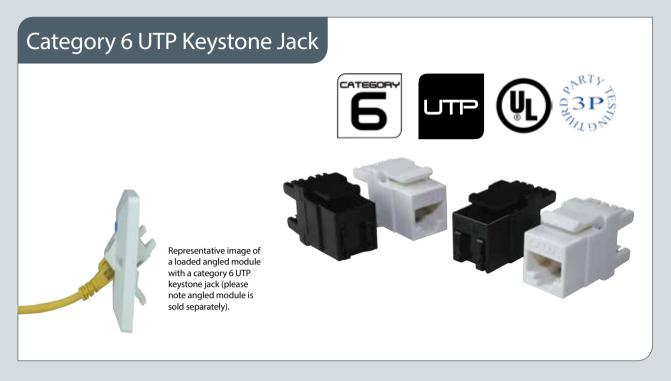
> UL approved

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 Shielded Twisted Pair (STP) keystone jack UL approved	CAT6+JACK180STP

**Optronics Category 6** 

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP KEYSTONE JACK**



Category 6 Unshielded Twisted Pair (UTP) keystone jacks conform to class E performance. They follow the industry standard keystone jack footprint and, due to their small form design, they are perfect for high density applications.

# Each jack is available with a 180° termination design, wiring diagram and conductor protection cap and can be supplied in black or white variants.

# Features

- > Small form RJ45 footprint design
- > IDC punch down
- > 180° termination
- > High performance
- > Available in black/white, with or without shutter
- > Wiring diagram and conductor cap supplied
- > Supplied in boxes of 20pcs

# Applications

- > Supports category 6 (class E) networks running up to 250 MHz applications
- > Ideal for high density installations
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > 3P approved (3rd party approval as part of permanent link using cable and panel)
- > UL approved

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair (UTP) keystone jack White Box of 20pcs - UL approved - 3P	CAT6+JACK180WH
Category 6 Unshielded Twisted Pair (UTP) keystone jack Black - Box of 20pcs - UL approved - 3P	CAT6+JACK180BK
Category 6 Unshielded Twisted Pair (UTP) Shuttered keystone jack White - Box of 20pcs - UL approved - 3P	CAT6+JACK180WHS
Category 6 Unshielded Twisted Pair (UTP) Shuttered keystone jack Black - Box of 20pcs - UL approved - 3P	CAT6+JACK180BKS

#### **OPTRONICS COPPER CABLING SYSTEM | CAT6 UTP BEVELLED LOADED FACEPLATES**

# Category 6 UTP Bevelled Loaded Faceplates



FACEPLATE2PBEV Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT6+FACE1PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT6+FACE2PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT6+FACE4PBEVJ Angled module and jack 86x147mm - Box of 10pcs



- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# **Applications**

- Supports category 6 networks running up to 500 MHz applications
- Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations



#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP FLAT LOADED FACEPLATES**

# **Category 6 UTP Flat Loaded Faceplates**



FACEPLATE2PFLAT Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PFLAT Double gang - 4 position 86x147mm - Box of 10pcs



CAT6+FACE1PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6+FACE2PFLTJ Angled module and jack 86x86mm - Box of 10pcs



CAT6+FACE4PFLTJ Angled module and jack 86x147mm - Box of 10pcs



HALFBLANK 50x25mm Box of 50pcs



All loaded faceplates include this style of keystone jack

33

# **Features**

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

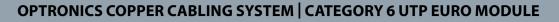
- > Supports category 6 networks running up to 500 MHz applications
- > Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- ISO/IEC 11801 : 2002 >
- ANSI/EIA/TIA 568B.2 : 2002 >
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations





Category 6 Unshielded Twisted Pair (UTP) 25x50mm shuttered, moulded, modules (Euro Mod) conform to class E performance. They feature a slim line design, which is an ideal solution for shallow floor box or dado trunking applications.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

Each module is supplied with a slide-in label area, for easy and clear outlet identification, and a mini cable-tie. Suits British Standard faceplates only.

#### Features

- > Complete shuttered module with PCB technology
- > Slim line design for shallow Applications
- > IDC punch down
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 20pcs
- > Compatible with UK faceplates

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- > Installations with limited space
- > Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ANSI/EIA/TIA 568B.2 : 2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > UL approved

# Ordering Information

DESCRIPTION	PART NUMBER
Category 6 Unshielded Twisted Pair (UTP) 50x25mm Shuttered Moulded Module - White - Box of 20pcs - UL approved	CAT6+FACEMODULE

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP BEVELLED EURO FACEPLATES**

# Category 6 UTP Bevelled Euro Faceplates



FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT6+FACE1PBEVM Euro module and Jack 86x86mm - Box of 10pcs



CAT6+FACE2PBEVM Euro module and Jack 86x86mm - Box of 10pcs





CAT6+FACE4PBEVM Euro module and Jack 86x147mm - Box of 10pcs



SINGLEBLANK 50x12.5mm Box of 100pcs

#### HALFBLANK 50x25mm Box of 50pcs

All loaded faceplates include this style of keystone jack UL approved

# Features

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws labelling supplied

# **Applications**

- Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution systems

## Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2.1
- > RoHS

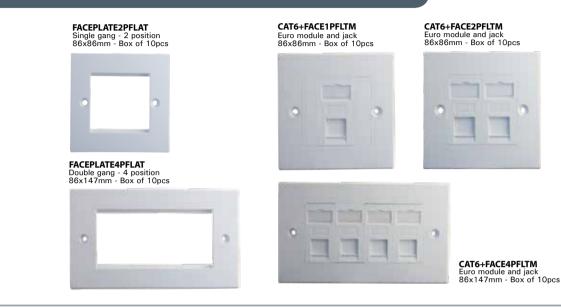
# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# **Optronics Category 6**

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP FLAT LOADED EURO MODULE**

# Category 6 UTP Flat Loaded Euro Module



# **Features**

- > Fully loaded / completed outlets
- Reduced installation time >
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- Fixing screws labelling supplied >

# Applications

- > Supports category 6 (class E) networks running up to 250 MHz applications
- Backwards compatible with category 5e distribution > systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- ANSI/EIA/TIA 568B.2.1 >
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations





All loaded faceplates include this style of keystone jack **UL** approved

**Optronics Category 6** 

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 LOADED EUROPEAN OUTLETS**



Category 6 Unshielded Twisted Pair (UTP) loaded European outlets conform to class E performance. These outlets come fully complete, with all items snapped into place, ready for termination, reducing the time usually spent unpacking, fitting

Features

- > Fully loaded / completed outlets
- > Keystone / module options
- > Wiring diagrams, mini cable ties supplied
- > Reduced installation time
- > Fixing screws, labelling supplied
- > Supplied in boxes of 10pcs

# Applications

- Supports category 6 (class E) networks running up to 250 MHz applications
- > Backwards compatible with category 5e distribution systems

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

and terminating various plastic components. They are available in a number of variations (please see product range table) all are supplied in boxes of 10pcs and conform to European standard dimensions.

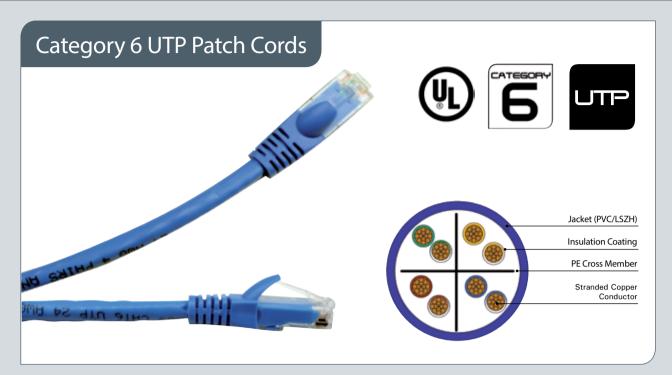
# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Gold Plating
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# **Ordering Information**

DESCRIPTION	PARTNUMBER
Category 6 Single Port European Outlet with Jack - Box of 10pcs	CAT6+FACE1PFRA
Category 6 Double Port European Outlet with Jack - Box of 10pcs	CAT6+FACE2PFRA
Category 6 Quad Port European Outlet with Jack - Box of 10pcs	CAT6+FACE4PFRA

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP PATCH CORDS**



Category 6 Unshielded Twisted Pair (UTP) patch cords conform to class E standards. Our patch cords are made to the highest standards, using only quality stranded cable, giving you the best in flexibility, plus top grade 50µ gold plated RJ45 connector plugs, for high quality connections. This combination makes for outstanding performance and reduced degradation. All patch cords are produced with a injection moulded boot with an easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend you use these as part of a full Optronics category 6 system.

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	24
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
	Material	Polyolefin
Jacket	External O.D.	6.0 +/- 0.20
	Thickness (mm)	0.5
	Material	PVC or LSZH

### Features

- > Quality 24AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > Injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# **Applications**

- Supports category 6 (class E) networks running up to 250MHz applications
- > Backwards compatible with category 5e distribution system

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2:2002
- > RoHS
- > REACH
- > UL listed

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 UTP PATCH CORDS**

# Category 6 UTP Patch Cords

# PVC

	PART NUMBER	METRE
	UTP6BL0.5-PVC	0.5
	UTP6BL1-PVC	1
BLUE	UTP6BL2-PVC	2
BL	UTP6BL3-PVC	3
	UTP6BL5-PVC	5
	UTP6BL10-PVC	10
	UTP6GN0.5-PVC	0.5
	UTP6GN1-PVC	1
GREEN	UTP6GN2-PVC	2
GRE	UTP6GN3-PVC	3
	UTP6GN5-PVC	5
	UTP6GN10-PVC	10
	UTP6OR0.5-PVC	0.5
	UTP6OR1-PVC	1
NGE	UTP6OR2-PVC	2
ORANGE	UTP6OR3-PVC	3
	UTP6OR5-PVC	5
	UTP6OR10-PVC	10

	PART NUMBER	METRE
	UTP6YE0.5-PVC	0.5
	UTP6YE1-PVC	1
VELLOW	UTP6YE2-PVC	2
YELI	UTP6YE3-PVC	3
	UTP6YE5-PVC	5
	UTP6YE10-PVC	10
	UTP6RD0.5-PVC	0.5
	UTP6RD1-PVC	1
۵	UTP6RD2-PVC	2
RED	UTP6RD3-PVC	3
	UTP6RD5-PVC	5
	UTP6RD10-PVC	10
	UTP6WH0.5-PVC	0.5
	UTP6WH1-PVC	1
WHITE	UTP6WH2-PVC	2
HM	UTP6WH3-PVC	3
	UTP6WH5-PVC	5
	UTP6WH10-PVC	10

_		
	PART NUMBER	METRE
	UTP6GY0.5-PVC	0.5
	UTP6GY1-PVC	1
Ę	UTP6GY2-PVC	2
GREY	UTP6GY3-PVC	3
	UTP6GY5-PVC	5
	UTP6GY10-PVC	10
	UTP6BK0.5-PVC	0.5
	UTP6BK1-PVC	1
Ŋ	UTP6BK2-PVC	2
BLACK	UTP6BK3-PVC	3
	UTP6BK5-PVC	5
	UTP6BK10-PVC	10

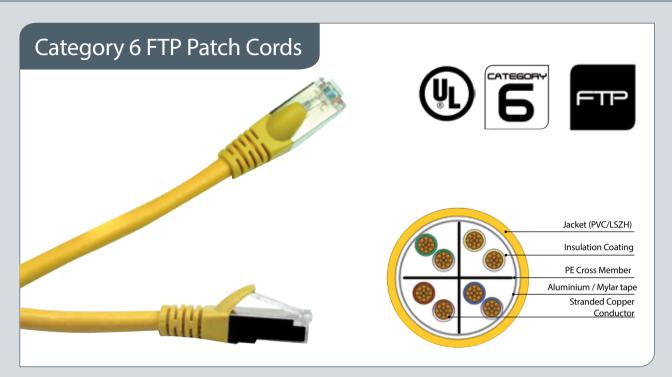
# LSZH

		_
	PART NUMBER	METRE
	UTP6BL0.5-LSZH	0.5
	UTP6BL1-LSZH	1
BLUE	UTP6BL2-LSZH	2
BL	UTP6BL3-LSZH	3
	UTP6BL5-LSZH	5
	UTP6BL10-LSZH	10
	UTP6GN0.5-LSZH	0.5
	UTP6GN1-LSZH	1
GREEN	UTP6GN2-LSZH	2
GRE	UTP6GN3-LSZH	3
	UTP6GN5-LSZH	5
	UTP6GN10-LSZH	10
	UTP6OR0.5-LSZH	0.5
	UTP6OR1-LSZH	1
<b>DRANGE</b>	UTP6OR2-LSZH	2
DRA	UTP6OR3-LSZH	3
	UTP6OR5-LSZH	5
	UTP6OR10-LSZH	10

	PART NUMBER	METRE
	UTP6YE0.5-LSZH	0.5
	UTP6YE1-LSZH	1
VELLOW	UTP6YE2-LSZH	2
LEL	UTP6YE3-LSZH	3
	UTP6YE5-LSZH	5
	UTP6YE10-LSZH	10
	UTP6RD0.5-LSZH	0.5
	UTP6RD1-LSZH	1
ËÐ	UTP6RD2-LSZH	2
a a	UTP6RD3-LSZH	3
	UTP6RD5-LSZH	5
	UTP6RD10-LSZH	10
	UTP6WH0.5-LSZH	0.5
	UTP6WH1-LSZH	1
Ë	UTP6WH2-LSZH	2
WHITE	UTP6WH3-LSZH	3
	UTP6WH5-LSZH	5
	UTP6WH10-LSZH	10

	PART NUMBER	METRE
	UTP6GY0.5-LSZH	0.5
	UTP6GY1-LSZH	1
GREY	UTP6GY2-LSZH	2
В,	UTP6GY3-LSZH	3
	UTP6GY5-LSZH	5
	UTP6GY10-LSZH	10
	UTP6BK0.5-LSZH	0.5
	UTP6BK1-LSZH	1
BLACK	UTP6BK2-LSZH	2
BLA	UTP6BK3-LSZH	3
	UTP6BK5-LSZH	5
	UTP6BK10-LSZH	10

#### OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 FTP PATCH CORDS



Category 6 Foiled Twisted Pair (FTP) patch cords conform to class E standards. Our patch cords are made to the highest standards, using only quality stranded cable, giving you the best in flexibility, plus, top grade 50µ gold plated RJ45 connector plugs, giving high quality connections. This combination makes for outstanding performance and reduced degradation. Aluminium tape is used to shield all 4 pairs; this gives a screened protection

# **Technical Specifications**

CONSTRU	CTION	VALUE
	AWG	26
Conductors	Size (mm)	0.915 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.97+/-0.05
	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC or LSZH
Таре	Material	Mylar & Aluminium Mylar
	Coverage (%)	125

against external interference such as EMI.

All patch cords are produced with a injection moulded boot with easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend you use these as part of a full Optronics category 6 system.

#### Features

- > Quality 26 AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# Applications

- Supports category 6 (class E) networks running up to 250 MHz applications
- Ideal for environments where heavy external interference can disrupt signal such as EMI
- > Backwards compatible with category 5e distribution system

# Conformance

- > Category 6
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > REACH
- > UL listed

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 6 FTP PATCH CORDS**

# Category 6 FTP Patch Cords

# PVC

	PART NUMBER	METRE
	FTP6BL0.5-PVC	0.5
	FTP6BL1-PVC	1
BLUE	FTP6BL2-PVC	2
BL	FTP6BL3-PVC	3
	FTP6BL5-PVC	5
	FTP6BL10-PVC	10
	FTP6GN0.5-PVC	0.5
	FTP6GN1-PVC	1
GREEN	FTP6GN2-PVC	2
GRI	FTP6GN3-PVC	3
	FTP6GN5-PVC	5
	FTP6GN10-PVC	10
	FTP6OR0.5-PVC	0.5
	FTP6OR1-PVC	1
ORANGE	FTP6OR2-PVC	2
DRA	FTP6OR3-PVC	3
	FTP6OR5-PVC	5
	FTP6OR10-PVC	10

	PART NUMBER	METRE
	FTP6YE0.5-PVC	0.5
	FTP6YE1-PVC	1
VELLOW	FTP6YE2-PVC	2
<b>VEL</b>	FTP6YE3-PVC	3
	FTP6YE5-PVC	5
	FTP6YE10-PVC	10
	FTP6RD0.5-PVC	0.5
	FTP6RD1-PVC	1
a	FTP6RD2-PVC	2
RED	FTP6RD3-PVC	3
	FTP6RD5-PVC	5
	FTP6RD10-PVC	10
	FTP6WH0.5-PVC	0.5
	FTP6WH1-PVC	1
NHITE	FTP6WH2-PVC	2
¥	FTP6WH3-PVC	3
	FTP6WH5-PVC	5
	FTP6WH10-PVC	10

	PART NUMBER	METRE
	FTP6GY0.5-PVC	0.5
	FTP6GY1-PVC	1
GREY	FTP6GY2-PVC	2
ម	FTP6GY3-PVC	3
	FTP6GY5-PVC	5
	FTP6GY10-PVC	10
	FTP6BK0.5-PVC	0.5
	FTP6BK1-PVC	1
BLACK	FTP6BK2-PVC	2
BLA	FTP6BK3-PVC	3
	FTP6BK5-PVC	5
	FTP6BK10-PVC	10

# LSZH

	PART NUMBER	METRE
	FTP6BL0.5-LSZH	0.5
	FTP6BL1-LSZH	1
BLUE	FTP6BL2-LSZH	2
BL	FTP6BL3-LSZH	3
	FTP6BL5-LSZH	5
	FTP6BL10-LSZH	10
	FTP6GN0.5-LSZH	0.5
	FTP6GN1-LSZH	1
GREEN	FTP6GN2-LSZH	2
GRI	FTP6GN3-LSZH	3
	FTP6GN5-LSZH	5
	FTP6GN10-LSZH	10
	FTP6OR0.5-LSZH	0.5
	FTP6OR1-LSZH	1
NG	FTP6OR2-LSZH	2
ORANGE	FTP6OR3-LSZH	3
	FTP6OR5-LSZH	5
	FTP6OR10-LSZH	10

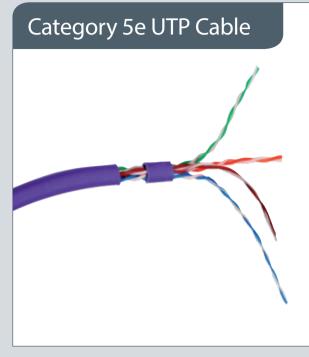
	PART NUMBER	METRE
	FTP6YE0.5-LSZH	0.5
	FTP6YE1-LSZH	1
VELLOW	FTP6YE2-LSZH	2
<b>TELI</b>	FTP6YE3-LSZH	3
	FTP6YE5-LSZH	5
	FTP6YE10-LSZH	10
	FTP6RD0.5-LSZH	0.5
	FTP6RD1-LSZH	1
RED	FTP6RD2-LSZH	2
2	FTP6RD3-LSZH	3
	FTP6RD5-LSZH	5
	FTP6RD10-LSZH	10
	FTP6WH0.5-LSZH	0.5
	FTP6WH1-LSZH	1
WHITE	FTP6WH2-LSZH	2
M	FTP6WH3-LSZH	3
	FTP6WH5-LSZH	5
	FTP6WH10-LSZH	10

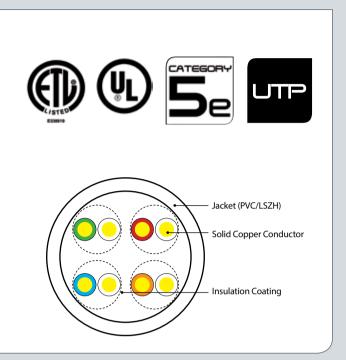
	PART NUMBER	METRE
	FTP6GY0.5-LSZH	0.5
	FTP6GY1-LSZH	1
GREY	FTP6GY2-LSZH	2
ម	FTP6GY3-LSZH	3
	FTP6GY5-LSZH	5
	FTP6GY10-LSZH	10
	FTP6BK0.5-LSZH	0.5
	FTP6BK1-LSZH	1
BLACK	FTP6BK2-LSZH	2
BLA	FTP6BK3-LSZH	3
	FTP6BK5-LSZH	5
	FTP6BK10-LSZH	10

# Optronics Copper Cabling System Category 5e

Cable	43
Patch Panels	45
Tool Free Jacks	49
Keystone Jacks	50
Loaded Faceplates	52
Euro Modules	54
Euro Loaded Faceplates	55
Patch Cords	58

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP CABLE**





Category 5e Unshielded Twisted Pair (UTP) 100 Ohm cable is produced using a  $4 \times 2 \times 24$  AWG copper wire structure to a

# **Technical Specifications**

CONSTRUCTION		VALUE
Conductors	AWG	24
	Size (mm)	0.50
	Material	Bare Copper
Insulators	Diameter (mm)	0.88+/-0.02
	Material	HDPE
Jacket	External O.D.	5.0 +/- 0.3
	Thickness (mm)	0.50 +/- 0.05
	Material	PVC/LSZH/PE

class D standard. It supports the gigabit Ethernet protocol for horizontal and backbone installations.

#### Features

- > 24 AWG conductor solid bare copper cable
- > PVC, LSZH and PE options
- > Supplied in 305m box
- > Printed metre marks

# Applications

- Supports category 5e (class D) networks running up to 100 MHz applications
- > Horizontal and backbone installations
- > 10 Base T (IEEE 802.3)
- > Token ring (IEEE 805.5)
- > 100 Base T (IEEE 802.3U)
- > ATM 155
- > 100 VG any LAN (IEEE 802.12)

# Conformance

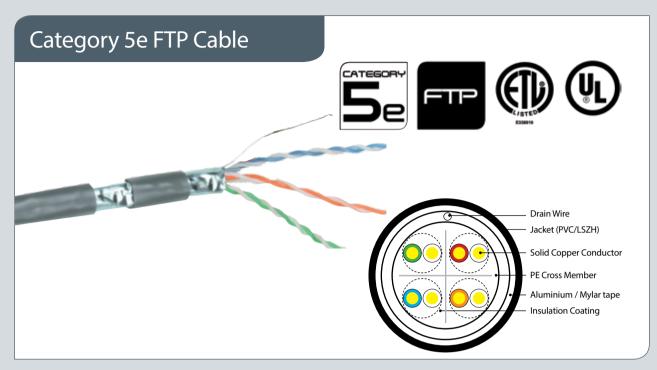
- > Category 5e
- > ANSI/EIA/TIA 568B.2 : 2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > REACH
- > ETL/UL approved

# **Optronics Category 5e**

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e Unshielded Twisted Pair (UTP) 24 AWG cable PVC 305m Box - Grey - ETL, UL approved	UTP5E305PVC
Category 5e Unshielded Twisted Pair (UTP) 24 AWG cable LSZH 305m Box - Violet -ETL approved	UTP5E305LSZH
Category 5e Unshielded Twisted Pair (UTP) 24 AWG cable External PE - 305m box	UTP5E305EXT

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E FTP CABLE**



Category 5e Foiled Twisted Pair (FTP) 100 Ohm cable is produced using a  $4 \times 2 \times 24$  AWG copper wire structure to a class D standard. Aluminium tape is used to shield all 4 pairs; this

# Features

- > 24 AWG conductor solid bare copper
- > PVC, LSZH and PE external jacket
- > Supplied in 305m box
- > Printed metre marks
- > PVC, LSZH and PE options

# Applications

- Supports category 5e (class D) networks running up to 100 MHz applications
- Ideal for environments where heavy external interference can disrupt signal such as EMI
- > External horizontal and backbone installations
- > 10 Base T (IEEE 802.3)
- > Token ring (IEEE 805.5)
- > 100 Base T (IEEE 802.3U)
- > ATM 155
- > 100 VG any LAN (IEEE 802.12)

# Conformance

- > Category 5e
- > ANSI/EIA/TIA 568B.2 : 2002
- > ISO/IEC 11801 : 2002
- > RoHS
- > REACH
- > ETL/UL approved

gives a screened protection against external interference such as EMI. It supports the gigabit Ethernet protocol for horizontal and backbone installations.

# **Technical Specifications**

CONSTRUCTION		VALUE
Conductors	AWG	24
	Size (mm)	0.515
	Material	Solid Bare Copper
Insulators	Diameter (mm)	1.03 +/-0.03
	Material	HDPE
Sheath	Material	Polyester + Aluminium Foil
Jacket	External O.D.	6.3 +/- 0.3
	Thickness (mm)	0.55 +/- 0.05
	Material	PVC/LSZH/PE

# Ordering Information

DESCRIPTION	PARTNUMBER
Category 5e Foiled Twisted Pair (FTP) cable PVC 305m Box - Grey - ETL, UL approved	FTP5E305PVC
Category 5e Foiled Twisted Pair (FTP) cable LSZH 305m Box - Violet - ETL, UL approved	FTP5E305LSZH
Category 5e Foiled Twisted Pair (FTP) cable PE External Grade - 305m Box - Black	FTP5E305EXT

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**Optronics Category 5e** 

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP PATCH PANEL**



Category 5e Printed Circuit Board (PCB) Unshielded Twisted Pair (UTP) patch panels conform to class D performance. The PCB is fully sealed for extra protection. In-line IDC blocks with wiring

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
Panel Frame	Carbon Steel, Powder Coating
IDC Material Phosphor Bronze Stamp Pin 0.35m	
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Nickel Plating
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

diagram, make termination very quick and easy. Available in 1U 24 ports or 2U 48 ports, all panels are supplied with rear cable management bars and fixings.

#### Features

- > 19" rack mountable
- > Accepts 24-26 AWG
- > RJ45 24 port 1U or 48 port 2U options
- > Ports numerically identified
- > 110 style IDC punch down
- > Removable label area
- > Rear cable management bar included
- > Supplied with fixings

# **Applications**

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B Wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS
- > UL approved

# **Optronics Category 5e**

45

# Ordering Information

DESCRIPTION	PART NUMBER
Category 5e Printed Circuit Board (PCB) 1U 24 port patch panel - Black - UL approved	CAT5E+UTP24
Category 5e Printed Circuit Board (PCB) 2U 48 port patch panel Black - UL approved	CAT5E+UTP48

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP TOOL FREE PANEL**

# Category 5e UTP Tool Free Panel



Category 5e Unshielded Twisted Pair (UTP) tool free patch panels conform to class D performance. These panels offer termination using the latest in tool free keystone jack technology. The use of an insertion tool is not required when terminating these panels, all 8 wires can be loaded and terminated simultaneously, drastically reducing installation time. Available in 1U 24 port format, these panels are supplied fully loaded with 90° tool free jacks, rear management bars and fixings.

#### Features

- > 19" rack mountable
- > Accepts 24-26 AWG
- > RJ45 24 port 1U
- > Ports numerically identified
- > Loaded with 90° tool free keystone jacks
- > Supplied with fixings
- > Saves valuable installation time
- > Includes rear cable management bar

# **Applications**

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801:2002
- > EIA/TIA 568A/B Wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS
- > UL approved

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Panel Frame	Steel Frame, Plastic Coated Clad
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# Ordering Information

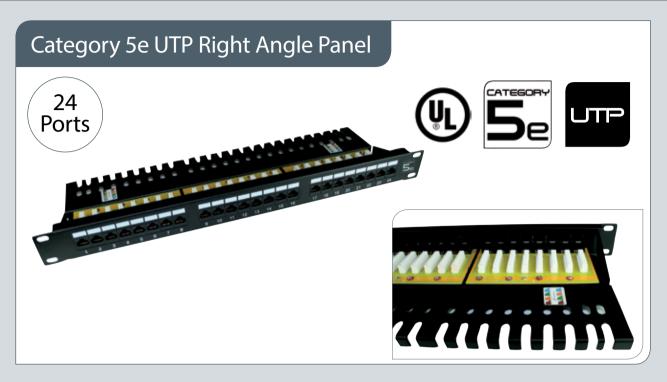
 DESCRIPTION
 PA

 Category 5e Unshielded Twisted Pair (UTP) Tool Free
 Keystone 1U 24 Port patch panel - UL approved

PART NUMBER

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#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP RIGHT ANGLE PANEL**



Category 5e Unshielded Twisted Pair (UTP) patch panels conform to class D performance. Each panel is produced using a right angled (90°) frame design, for flat termination onto the IDC blocks. This ensures that termination and general management is quick and easy when working with bulky horizontal cables.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
Panel Frame	Carbon Steel, Powder Coating
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

Integral cable management also provides a solid platform for fixing and managing cable entry. Each port has its own 8 pin IDC block which includes a wiring diagram. Available in 1U 24 port format, panels are supplied with fixings.

#### Features

- > 19" rack mountable
- > Accepts 24-26 AWG
- > Right angle (90°) design
- > Ports numerically identified
- > Supplied with fixings
- > Integral cable management
- > RJ45 24 port 1U Panel

# **Applications**

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > EIA/TIA 568A/B Wiring standard
- > ANSI/EIA/TIA 568B.2 : 2002
- > EN50173-1:2002
- > RoHS
- > UL approved

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e Unshielded Twisted Pair (UTP) 1U 24 Port 90 degree patch panel - UL approved	CAT5E +UTP24RA

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E STP PATCH PANEL**

# **Category 5e STP Patch Panel**



Category 5e Shielded Twisted Pair (STP) patch panels conform to class D performance. Each shielded panel is produced using a right angled (90°) frame design for flat termination onto the IDC blocks, this ensures termination, grounding and general management is quick and easy when working with category

Features

- > 19" rack mountable clamps
- > Fully shielded
- > Accepts 24-26 AWG
- > Right angle (90°) design
- > Ports numerically identified
- > Supplied with fixings and earthing wire
- Integral cable management and grounding >
- > RJ45 24 port 1U Panel

# Applications

- > Supports category 5e (class D) networks running up to 100 MHz applications
- Fully Screened for high EMI environments >

# Conformance

- > Category 5e
- EIA/TIA 568A/B Wiring standard >
- > EN50173-1:2002
- > SO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > UL approved

5e shielded cables. Cable grounding is achieved by using the shielding clamps located to the rear of the integral cable management each port has its own 8 pin IDC block which includes wiring diagram. An overall sliding cover gives extra shielding against EMI and protects terminations.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Panel Frame	Zinc Plating, Powder Coating
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

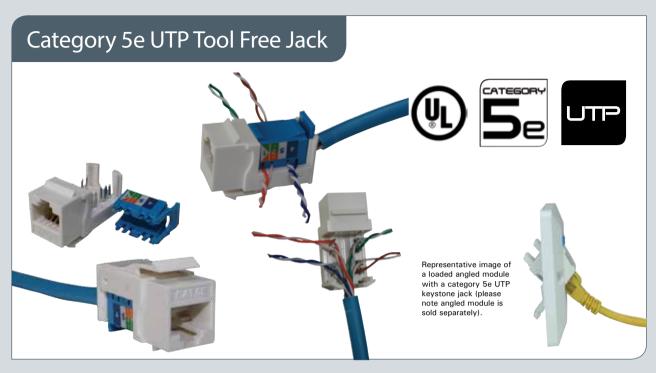
# **Ordering Information**

DESCRIPTION PART NUMBER Category 5e Shielded Twisted Pair (STP) 1U 24 Port patch panel - UL approved

CAT5E+STP24

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#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP TOOL FREE JACK**



Category 5e Unshielded Twisted Pair (UTP) tool free keystone jacks conform to class D standards. They follow the industry standard RJ45 footprint and due to the small form design

**Technical Specifications** 

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

the keystone jack is perfect for high density applications. No insertion tool is required for diagram. Supplied in white with blue termination cap in packs of 20pcs.

#### Features

- > Small form RJ45 footprint design
- > 90° termination
- > IDC tool free punch down
- > Accepts 24-26 AWG
- > Reduces installation time
- > Supplied in boxes of 20pcs
- > Wiring diagram supplied

# Applications

- Supports category 5e (class D) networks running up to 100 MHz applications
- > Ideal for high density installations

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > UL approved

# Ordering Information

DESCRIPTION Cat 5e Unshielded Twisted Pair (UTP) Tool Free keystone jack, White, box of 20pcs, UL approved

PART NUMBER

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E STP KEYSTONE JACK**



Category 5e Shielded Twisted Pair (STP) keystone jacks conforms to class D performance. They follow the industry standard RJ45

footprint and due to the small form design the keystone jack is perfect for high density applications.

# Features

- > Small form RJ45 footprint design
- > 90° termination
- > High performance
- > Fully shielded for EMI protection
- > Wiring diagram and conductor cap supplied
- > Supplied in boxes of 20pcs
- > IDC punch down

# **Applications**

- Supports category 5e (class D) networks running up to 100 MHz applications
- > Ideal for high density installations
- > Ideal for environments sensitive to EMI

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > UL approved

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
Shielding Material	Brass 0.30mm + Nickel Plating
Insert Material	Flame retardancy ABS UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# Ordering Information

 
 DESCRIPTION
 PART NUMBER

 Category 5e Shielded Twisted Pair (STP) keystone jack Box of 20pcs - UL approved
 CAT5E+JACK180STP

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**Optronics Category 5e** 

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP KEYSTONE JACK**

# Category 5e UTP Keystone Jack



Category 5e Unshielded Twisted Pair (UTP) keystone jacks conform to class D performance. They follow the industry standard keystone jack footprint. Due to their small form design they are perfect for high density applications.

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

Each keystone jack is available with 180° termination design, with wiring diagram and conductor protection cap. They can be supplied in black or white variants.

#### Features

- > Small form RJ45 footprint design
- > IDC punch down
- > 180° termination
- > High performance
- > Available in black/white, with or without shutter
- > Wiring diagram and conductor cap supplied
- > Supplied in boxes of 20pcs

# **Applications**

- Supports category 5e (class D) networks running up to 100 MHz applications
- > Ideal for high density installations

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > UL approved

# **Optronics Category 5e**

# Ordering Information

DESCRIPTION	PART NUMBER
Category 5e Unshielded Twisted Pair (UTP) keystone jack White Box of 20pcs - UL approved	CAT5E+JACK180WH
Category 5e Unshielded Twisted Pair (UTP) keystone jack Black - Box of 20pcs - UL approved	CAT5E+JACK180BK
Category 5e Unshielded Twisted Pair (UTP) Shuttered keystone jack White - Box of 20pcs - UL approved	CAT5E+JACK180WHS
Category 5e Unshielded Twisted Pair (UTP) Shuttered keystone jack Black - Box of 20pcs - UL approved	CAT5E+JACK180BKS

#### **OPTRONICS COPPER CABLING SYSTEM | CAT5E UTP BEVELLED LOADED FACEPLATES**

# Category 5e UTP Bevelled Loaded Faceplates



FACEPLATE2PBEV Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT5E+FACE1PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT5E+FACE2PBEVJ Angled module and jack 86x86mm - Box of 10pcs



CAT5E+FACE4PBEVJ Angled module and jack 86x147mm - Box of 10pcs



include this style of keystone jack

#### Features

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

 Supports category 5e (class D) networks running up to 100MHz applications

# Conformance

- > Category 5e
- > SO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

**Optronics Category 5e** 

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#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP FLAT LOADED FACEPLATES**

# Category 5e UTP Flat Loaded Faceplates



FACEPLATE2PFLAT Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PFLAT Double gang - 4 position 86x147mm - Box of 10pcs



CAT5E+FACE1PFLTJ Angled module and jack 86x86mm - Box of 10pcs





CAT5E+FACE4PFLTJ Angled module and jack 86x147mm - Box of 10pcs



### **Features**

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws, labelling supplied

# Applications

> Supports category 5e (class D) networks running up to 100MHz applications

# Conformance

- > Category 5e
- > SO/IEC 11801:2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PBT + 15% GF UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations



#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP EURO MODULE**

# Category 5e UTP Euro Module



Category 5e Unshielded Twisted Pair (UTP) 25x50mm shuttered, moulded, modules (Euro Mod) conform to class D performance. They feature a slim line design, which is an ideal solution for shallow floor box or dado trunking Applications.

#### Each module is supplied with a slide in label area, for easy and clear outlet identification, and a mini cable-tie. Suits British standard faceplates only.

# Features

- > Complete shuttered module with PCB technology
- > Slim line design for shallow Applications
- IDC punch down >
- Wiring diagram and mini cable tie supplied >
- Supplied in boxes of 20pcs >
- Compatible with Optronics UK faceplates >

# Applications

> Supports category 5e (class D) networks running up to 100 MHz applications

#### Conformance

- Category 5e >
- ANSI/EIA/TIA 568B.2:2002 >
- > ISO/IEC 11801:2002
- > RoHS
- UL approved >

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# **Ordering Information**

#### DESCRIPTION Category 5e Unshielded Twisted Pair (UTP)

50x25mm Shuttered Moulded Module White - Box of 20pcs - UL approved

PART NUMBER

CAT5EFACEMODULE

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP BEVELLED EURO FACEPLATES**

# Category 5e UTP Bevelled Euro Faceplates

FACEPLATE2PBEV Single gang - 2 position 86x86mm - Box of 10pcs



FACEPLATE4PBEV Double gang - 4 position 86x147mm - Box of 10pcs



CAT5E+FACE1PBEVM Euro module and Jack 86x86mm - Box of 10pcs



CAT5E+FACE2PBEVM Euro module and Jack 86x86mm - Box of 10pcs





CAT5E+FACE4PBEVM Euro module and Jack 86x147mm - Box of 10pcs



#### SINGLEBLANK 50x12.5mm

HALFBLANK 50x25mm Box of 50pcs

All loaded faceplates include this style of keystone jack **UL** approved

# **Features**

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws labelling supplied

# **Applications**

> Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

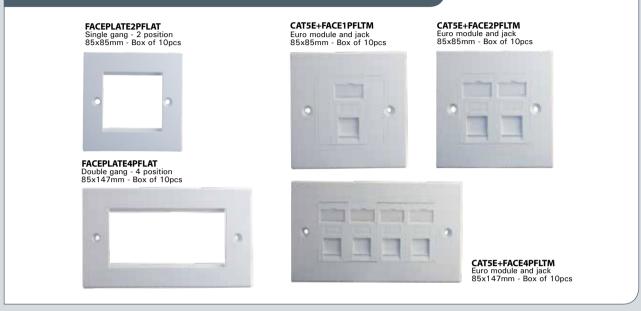
- Category 5e >
- ISO/IEC 11801:2002 >
- ANSI/EIA/TIA 568B.2.1 >
- > RoHS

# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP FLAT LOADED EURO MODULE**

# Category 5e UTP Flat Loaded Euro Module



# Features

- > Fully loaded / completed outlets
- > Reduced installation time
- > Wiring diagram and mini cable tie supplied
- > Supplied in boxes of 10pcs
- > Fixing screws labelling supplied

# Applications

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 55E8B.2.1
- > RoHS



# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	Phosphor Bronze + Gold Plating 0.50mm
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations



# 56

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#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E LOADED EUROPEAN OUTLETS**



Category 5e Unshielded Twisted Pair (UTP) loaded European outlets conform to class E performance. These outlets come fully complete, with all items snapped into place, ready for termination, reducing the time usually spent unpacking, fitting

Features

- > Fully loaded / completed outlets
- > Keystone / module options
- > Wiring diagrams, mini cable ties supplied
- > Reduced installation time
- > Fixing screws, labelling supplied
- > Supplied in boxes of 10pcs

# **Applications**

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 55E8B.2 : 2002
- > RoHS

and terminating various plastic components. They are available in a number of variations (please see product range table) all are supplied in boxes of 10pcs and conform to European standard dimensions.

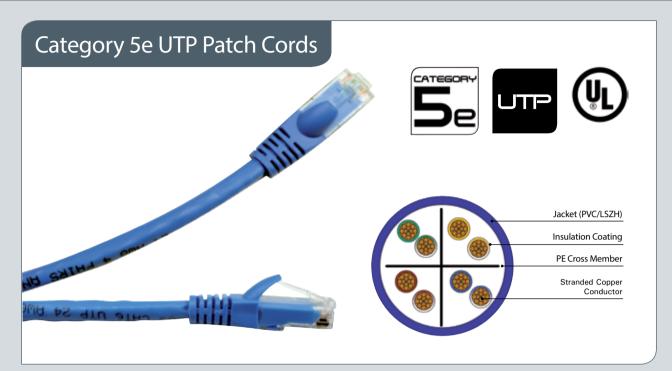
# **Technical Specifications**

MECHANICAL	VALUE
Housing Material	PC UL94V-0
IDC Material	Phosphor Bronze Stamp Pin 0.35mm
Contact Material	PC UL94V-0 Contact: Phosphor Bronze + Gold Plating
RJ45 Jack Life	Min 750 Insertions
IDC Life	Min 250 Terminations

# Ordering Information

DESCRIPTION	PART NUMBER
Category 5e Single Port European Outlet with Jack - Box of 10pcs	CAT5E+FACE1PFRA
Category 5e Double Port European Outlet with Jack - Box of 10pcs	CAT5E+FACE2PFRA
Category 5e Quad Port European Outlet with Jack - Box of 10pcs	CAT5E+FACE4PFRA

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP PATCH CORDS**



Category 5e Unshielded Twisted Pair (UTP) patch cords conform to class D standards. Our patch cords are made to the highest standards, using only quality stranded cable, giving you the best in flexibility, plus, top grade 50µ gold plated RJ45 connector plugs for high quality connections. This combination makes for outstanding performance and reduced degradation. All patch cords are produced with a injection moulded boot with an easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend these as part of a full Optronics category 5e system.

# Features

- > Quality 24 AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > Injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# **Applications**

 Supports category 5e (class D) networks running up to 100 MHz applications

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > REACH
- > UL listed

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	24
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
insulators	Material	Polyolefin
Jacket	External O.D.	6.0 +/- 0.20
	Thickness (mm)	0.5
	Material	PVC or LSZH

58

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E UTP PATCH CORDS**

# Category 5e UTP Patch Cords

# PVC

	PART NUMBER	METRE
	UTP5EBL0.5-PVC	0.5
	UTP5EBL1-PVC	1
BLUE	UTP5EBL2-PVC	2
BL	UTP5EBL3-PVC	3
	UTP5EBL5-PVC	5
	UTP5EBL10-PVC	10
	UTP5EGN0.5-PVC	0.5
	UTP5EGN1-PVC	1
GREEN	UTP5EGN2-PVC	2
GRI	UTP5EGN3-PVC	3
	UTP5EGN5-PVC	5
	UTP5EGN10-PVC	10
	UTP5EOR0.5-PVC	0.5
	UTP5EOR1-PVC	1
RANGE	UTP5EOR2-PVC	2
ORA	UTP5EOR3-PVC	3
	UTP5EOR5-PVC	5
	UTP5EOR10-PVC	10

# LSZH

	PART NUMBER	METRE
	UTP5EBL0.5-LSZH	0.5
	UTP5EBL1-LSZH	1
BLUE	UTP5EBL2-LSZH	2
BL	UTP5EBL3-LSZH	3
	UTP5EBL5-LSZH	5
	UTP5EBL10-LSZH	10
	UTP5EGN0.5-LSZH	0.5
	UTP5EGN1-LSZH	1
GREEN	UTP5EGN2-LSZH	2
GRI	UTP5EGN3-LSZH	3
	UTP5EGN5-LSZH	5
	UTP5EGN10-LSZH	10
	UTP5EOR0.5-LSZH	0.5
	UTP5EOR1-LSZH	1
DRANGE	UTP5EOR2-LSZH	2
ORA	UTP5EOR3-LSZH	3
	UTP5EOR5-LSZH	5
	UTP5EOR10-LSZH	10

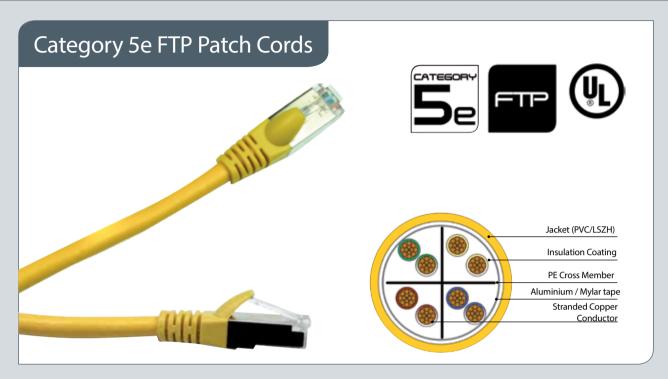
	PART NUMBER	METRE
	UTP5EYE0.5-PVC	0.5
	UTP5EYE1-PVC	1
VELLOW	UTP5EYE2-PVC	2
<b>VELI</b>	UTP5EYE3-PVC	3
	UTP5EYE5-PVC	5
	UTP5EYE10-PVC	10
	UTP5ERD0.5-PVC	0.5
	UTP5ERD1-PVC	1
RED	UTP5ERD2-PVC	2
	UTP5ERD3-PVC	3
	UTP5ERD5-PVC	5
	UTP5ERD10-PVC	10
	UTP5EWH0.5-PVC	0.5
	UTP5EWH1-PVC	1
WHITE	UTP5EWH2-PVC	2
H	UTP5EWH3-PVC	3
	UTP5EWH5-PVC	5
	UTP5EWH10-PVC	10

	PART NUMBER	METRE
	UTP5EGY0.5-PVC	0.5
	UTP5EGY1-PVC	1
GREY	UTP5EGY2-PVC	2
ម	UTP5EGY3-PVC	3
	UTP5EGY5-PVC	5
	UTP5EGY10-PVC	10
	UTP5EBK0.5-PVC	0.5
	UTP5EBK1-PVC	1
Ŋ	UTP5EBK2-PVC	2
BLACK	UTP5EBK3-PVC	3
	UTP5EBK5-PVC	5
	UTP5EBK10-PVC	10

	PART NUMBER	METRE
	UTP5EYE0.5-LSZH	0.5
	UTP5EYE1-LSZH	1
VELLOW	UTP5EYE2-LSZH	2
<b>VELI</b>	UTP5EYE3-LSZH	3
	UTP5EYE5-LSZH	5
	UTP5EYE10-LSZH	10
	UTP5ERD0.5-LSZH	0.5
	UTP5ERD1-LSZH	1
۵	UTP5ERD2-LSZH	2
RED	UTP5ERD3-LSZH	3
	UTP5ERD5-LSZH	5
	UTP5ERD10-LSZH	10
	UTP5EWH0.5-LSZH	0.5
	UTP5EWH1-LSZH	1
WHITE	UTP5EWH2-LSZH	2
H	UTP5EWH3-LSZH	3
	UTP5EWH5-LSZH	5
	UTP5EWH10-LSZH	10

	PART NUMBER	METRE
	UTP5EGY0.5-LSZH	0.5
	UTP5EGY1-LSZH	1
GREY	UTP5EGY2-LSZH	2
ម	UTP5EGY3-LSZH	3
	UTP5EGY5-LSZH	5
	UTP5EGY10-LSZH	10
	UTP5EBK0.5-LSZH	0.5
	UTP5EBK1-LSZH	1
BLACK	UTP5EBK2-LSZH	2
BLA	UTP5EBK3-LSZH	3
	UTP5EBK5-LSZH	5
	UTP5EBK10-LSZH	10

#### **OPTRONICS COPPER CABLING SYSTEM | CATEGORY 5E FTP PATCH CORDS**



Category 5e Foiled Twisted Pair (FTP) patch cords conform to class D standards. Our patch cords are made to the highest standards, using only quality stranded cable, giving you the best in flexibility, plus, top grade 50µ gold plated RJ45 connector plugs, for high quality connections. This combination makes for outstanding performance and reduced degradation. Aluminium tape is used to shield all 4 pairs; this gives a screened protection

against external interference such as EMI. All patch cords are produced with a injection moulded boot with easy depression latch cover. Available across 8 colours, 6 standard lengths and in PVC or LSZH jacket varieties. For best performance we recommend these as part of a full Optronics category 5e system.

# Features

- > Quality 26 AWG stranded (flexible) cable
- > High grade 50µ gold plated RJ45 connector
- > Injection moulded boot for improved strain relief
- > Soft latch-cover design for easy depression

# **Applications**

- Supports category 5e (class D) networks running up to 100 MHz applications
- Ideal for environments where heavy external interference can disrupt signal such as EMI

# Conformance

- > Category 5e
- > ISO/IEC 11801 : 2002
- > ANSI/EIA/TIA 568B.2 : 2002
- > RoHS
- > REACH
- > UL listed

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	26
Conductors	Size (mm)	0.915 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.97+/-0.05
Insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC or LSZH
Таре	Material	Mylar & Aluminium Mylar
	Coverage (%)	125

# Category 5e FTP Patch Cords

# PVC

	PART NUMBER	METRE
	FTP5EBL0.5-PVC	0.5
	FTP5EBL1-PVC	1
BLUE	FTP5EBL2-PVC	2
В	FTP5EBL3-PVC	3
	FTP5EBL5-PVC	5
	FTP5EBL10-PVC	10
	FTP5EGN0.5-PVC	0.5
	FTP5EGN1-PVC	1
GREEN	FTP5EGN2-PVC	2
GRI	FTP5EGN3-PVC	3
	FTP5EGN5-PVC	5
	FTP5EGN10-PVC	10
	FTP5EOR0.5-PVC	0.5
ш_	FTP5EOR1-PVC	1
ORANGE	FTP5EOR2-PVC	2
DRA	FTP5EOR3-PVC	3
	FTP5EOR5-PVC	5
	FTP5EOR10-PVC	10

	PART NUMBER	METRE
	FTP5EYE0.5-PVC	0.5
	FTP5EYE1-PVC	1
NO	FTP5EYE2-PVC	2
<b>VELLOW</b>	FTP5EYE3-PVC	3
	FTP5EYE5-PVC	5
	FTP5EYE10-PVC	10
	FTP5ERD0.5-PVC	0.5
	FTP5ERD1-PVC	1
RED	FTP5ERD2-PVC	2
8	FTP5ERD3-PVC	3
	FTP5ERD5-PVC	5
	FTP5ERD10-PVC	10
	FTP5EWH0.5-PVC	0.5
	FTP5EWH1-PVC	1
NHITE	FTP5EWH2-PVC	2
¥	FTP5EWH3-PVC	3
	FTP5EWH5-PVC	5
	FTP5EWH10-PVC	10

	PART NUMBER	METRE
	FTP5EGY0.5-PVC	0.5
	FTP5EGY1-PVC	1
GREY	FTP5EGY2-PVC	2
ម	FTP5EGY3-PVC	3
	FTP5EGY5-PVC	5
	FTP5EGY10-PVC	10
	FTP5EBK0.5-PVC	0.5
	FTP5EBK1-PVC	1
ž	FTP5EBK2-PVC	2
BLACK	FTP5EBK3-PVC	3
	FTP5EBK5-PVC	5
	FTP5EBK10-PVC	10

# LSZH

	PART NUMBER	METRE
	FTP5EBL0.5-LSZH	0.5
	FTP5EBL1-LSZH	1
BLUE	FTP5EBL2-LSZH	2
B	FTP5EBL3-LSZH	3
	FTP5EBL5-LSZH	5
	FTP5EBL10-LSZH	10
	FTP5EGN0.5-LSZH	0.5
	FTP5EGN1-LSZH	1
GREEN	FTP5EGN2-LSZH	2
GRI	FTP5EGN3-LSZH	3
	FTP5EGN5-LSZH	5
	FTP5EGN10-LSZH	10
	FTP5EOR0.5-LSZH	0.5
	FTP5EOR1-LSZH	1
ORANGE	FTP5EOR2-LSZH	2
DRA	FTP5EOR3-LSZH	3
	FTP5EOR5-LSZH	5
	FTP5EOR10-LSZH	10

	PART NUMBER	METRE
	FTP5EYE0.5-LSZH	0.5
	FTP5EYE1-LSZH	1
VELLOW	FTP5EYE2-LSZH	2
YELI	FTP5EYE3-LSZH	3
	FTP5EYE5-LSZH	5
	FTP5EYE10-LSZH	10
	FTP5ERD0.5-LSZH	0.5
	FTP5ERD1-LSZH	1
RED	FTP5ERD2-LSZH	2
8	FTP5ERD3-LSZH	3
	FTP5ERD5-LSZH	5
	FTP5ERD10-LSZH	10
	FTP5EWH0.5-LSZH	0.5
	FTP5EWH1-LSZH	1
WHITE	FTP5EWH2-LSZH	2
H۲.	FTP5EWH3-LSZH	3
	FTP5EWH5-LSZH	5
	FTP5EWH10-LSZH	10

	PART NUMBER	METRE
	FTP5EGY0.5-LSZH	0.5
	FTP5EGY1-LSZH	1
GREY	FTP5EGY2-LSZH	2
GR	FTP5EGY3-LSZH	3
	FTP5EGY5-LSZH	5
	FTP5EGY10-LSZH	10
	FTP5EBK0.5-LSZH	0.5
	FTP5EBK1-LSZH	1
ť	FTP5EBK2-LSZH	2
BLACK	FTP5EBK3-LSZH	3
	FTP5EBK5-LSZH	5
	FTP5EBK10-LSZH	10

# OptronicsPlus Copper Cabling System

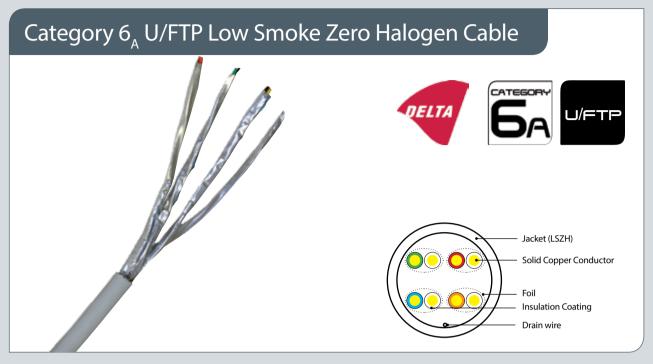
Category 6 <sub>A</sub>	63
Category 6	73
Category 5e	93
Faceplates and Accessories	113
	11/

# OptronicsPlus Copper Cabling System

# Category 6<sub>A</sub>

Cable	64
Patch Panels	68
Keystone Jacks	70
Patch Cords	71

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6A U/FTP LSZH CABLE**



OptronicsPlus category  $6_A$  U/FTP LSZH cable is designed to deliver robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

# **Applicable Standards**

The category  $6_A$  U/FTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

# Other Relevant Information

- > REACH / SvHC Compliant regulation (EC) No. 1907/2006
- > Pair colour code:
- Pair 1: Orange and White/Orange
- Pair 2: Blue and White/Blue
- Pair 3: Brown and White/Brown
- Pair 4: Green and White/Green

Our category  $6_A$  U/FTP LSZH cable exceeds the minimum specified performance for category  $6_A$  U/FTP cables and support all class EA applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 100GBASE-T (Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

# **Fire Performance**

Category 6, U/FTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6A U/FTP LSZH CABLE**

# Category 6<sub>A</sub> U/FTP Low Smoke Zero Halogen Cable

# **Technical Specifications**

CONSTRUCTION	
Conductors	A single strand of 23AWG (0.574mm) solid copper
Insulation	Expanded Polyethylene
Cable	8 insulated wires formed into 4 pairs. Each pair is individually screened with an aluminised polyester tape. (The aluminium side of the tape is in continuous contact with the tinned copper drain wire)
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)
Diameter 7.2mm	

ELECTRICAL PROPERTIES AT 200C	
Characteristic (1-100MHz) Impedance (100 - 250MHz)	$\begin{array}{c} 100\pm15\Omega\\ 100\pm18\Omega \end{array}$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal Velocity of Propagation	78%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 55dB

# **Mechanical Characteristics**

TEMPERATURE RANGE			MINIMUM BEND	RADII
Operation	-20°C to + 60°C		Installation	8 x cable diameter
Installation	0°C to +50°C		Installed	4 x cable diameter
Storage	-20°C to + 70°C	1		

MAXIMUM TENSILE FORCE	
During Installation	100N

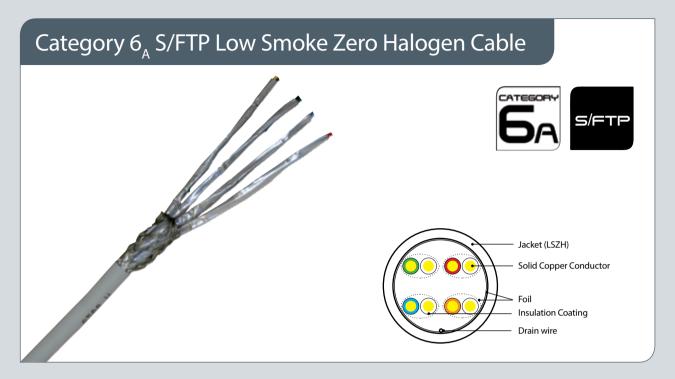
# Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	NEXT MIN dB	ACR MIN dB	PSNEXT MIN dB	ELFEXT MIN dB	PSELFEXT MIN dB	PSANEXT MIN dB	RETURN LOSS
1	1.8	95.	93.2	95.0	68.0	65.0	-	-
4	3.8	66.3	62.5	66.3	58.0	55.0	76.5	23
10	5.9	60.3	54.4	60.3	50.0	47.0	72.5	25
20	8.4	55.8	47.4	55.8	44.0	41.0	69.5	25
62.5	15.0	48.4	33.4	48.4	34.1	31.1	64.5	21.5
100	19.1	45.3	26.2	45.3	30.0	27.0	62.5	20.1
250	31.1	39.3	8.2	39.3	22.0	19.0	56.5	17.3
500	45.3	34.8	-10.5	34.8	16.0	13.0	52.0	17.3

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> U/FTP LSZH 500m Reel	UFTP6A500LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6A S/FTP LSZH CABLE**



OptronicsPlus  $6_A$  S/FTP LSZH cables is designed to deliver robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres. Cable performance is routinely verified by the independent testing laboratory 3P as part of an ongoing

# **Applicable Standards**

The category 6<sub>A</sub> S/FTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

# Other Relevant Information

- > REACH / SvHC Compliant regulation (EC) No. 1907/2006
- > Pair colour code:
  - Pair 1: Orange and White/Orange
  - Pair 2: Blue and White/Blue
  - Pair 3: Brown and White/Brown
  - Pair 4: Green and White/Green

maintenance programme. Our category  $6_A$  S/FTP LSZH cable exceeds the minimum specified performance for category  $6_A$  S/FTP cables and support all class EA applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 100GBASE-T (Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

# **Fire Performance**

Category 6<sub>A</sub> S/FTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6A S/FTP LSZH CABLE**

# Category 6<sub>A</sub> S/FTP Low Smoke Zero Halogen Cable

# **Technical Specifications**

CONSTRUCTION			
Conductors	A single strand of 23AWG (0.574mm) solid copper		
Insulation	Expanded Polyethylene		
Cable	8 insulated wires formed into 4 pairs. Each pair is individually screened with an aluminised polyester tape. (The aluminium side of the tape is in continuous contact with the tinned copper drain wire)		
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)		
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)		

ELECTRICAL PROPERTIES AT 200C		
Characteristic (1-100MHz) Impedance (100 - 250MHz)	$\begin{array}{l} 100\pm15\Omega\\ 100\pm18\Omega \end{array}$	
DC Loop Resistance	≤ 19.0Ω/100m	
Resistance Unbalance	≤ 2%	
Capacitance Unbalance to Earth	≤ 1600 pF/km	
Delay Skew	≤ 40ns/100m @ 100MHz	
Nominal Velocity of Propagation	78%	
Propagation Delay (Nominal)	≤ 534ns/100m	
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V	
Insulation Resistance (500V d.c)	≥ 500MΩ.km	
Transfer Impedance	≥ 55dB	

# **Mechanical Characteristics**

TEMPERATURE RANGE				
Operation	-20°C to + 60°C			
Installation	0°C to +50°C			
Storage	-20°C to + 70°C			

MINIMUM BEND RADII			
Installation	8 x cable diameter		
Installed 4 x cable diameter			

MAXIMUM TENSILE FORCE	
During Installation	100N

# Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	NEXT MIN dB	ACR MIN dB	PSNEXT MIN dB	ELFEXT MIN dB	PSELFEXT MIN dB	PSANEXT MIN dB	RETURN LOSS
1	1.8	95.	93.2	95.0	68.0	65.0	-	-
4	3.8	66.3	62.5	66.3	58.0	55.0	76.5	23
10	5.9	60.3	54.4	60.3	50.0	47.0	72.5	25
20	8.4	55.8	47.4	55.8	44.0	41.0	69.5	25
62.5	15.0	48.4	33.4	48.4	34.1	31.1	64.5	21.5
100	19.1	45.3	26.2	45.3	30.0	27.0	62.5	20.1
250	31.1	39.3	8.2	39.3	22.0	19.0	56.5	17.3
500	45.3	34.8	-10.5	34.8	16.0	13.0	52.0	17.3

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 <sub>A</sub> S/FTP LSZH 500m Reel	SFTP6A500LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | SCREENED CATEGORY 6A RJ45 PATCH PANEL**



OptronicsPlus category  $6_A$  patch panel exceeds the transmission line performance requirements of IEC and TIA for class EA/ category  $6_A$  systems. The panels are designed for mechanical and electrical reliability, using quality materials and processes, to deliver a panel solution which delivers a consistent high level

# Features

- > 19" rack mountable
- > 24 ports in 1U space
- > 8 port RJ45 modules
- > Finger screw easy open screen cover
- > Universal wiring blocks for easy termination
- > Right-angled wiring block orientation for easier installation
- > Colour coded wiring blocks for easy cable lacing
- > Integral rear cable management
- > Durability: Socket Contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

of systems performance. Each category  $6_A$  patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class EA/category  $6_A$  applications including 10GBASE-T (10 Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

# **Applications**

- > Class EA/category 6<sub>A</sub> standards compliant
- > Independent third party verified performance
- > Terminates 22AWG to 26AWG cables

# Conformance

- > Electrically compliant beyond 500MHz
- > Supports TIA 568A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# Ordering Information

**DESCRIPTION** Screened category 6<sub>4</sub> patch panel, 24 port Black 1U

```
PART NUMBER
800-001
```

68

#### OPTRONICSPLUS COPPER CABLING SYSTEM | SCREENED CAT 6A "HIGH DENSITY" PATCH PANEL



OptronicsPlus category  $6_A$  "High Density" patch panel exceeds the transmission line performance requirements of IEC and TIA for class EA/category  $6_A$  systems. These are 'real' cabinet space saving products designed for mechanical and electrical performance reliability. The "High Density" panel delivers a consistent high level of systems performance whilst halving

# Features

- > 19" rack mountable
- > 48 ports in 1U space
- > 8 port RJ45 modules
- > Finger screw easy open screen cover
- > Universal wiring blocks for easy termination
- > Right-angled wiring block orientation for easier installation
- Colour coded wiring blocks for easy cable lacing Integral rear cable management
- > Durability:
   Socket Contacts: 750 plug insertion cycles minimum
   Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

the cabinet space required in high density installations. Each category  $6_A$  "High Density" patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class EA/category  $6_A$  applications such as 10GBASE-T (10 Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

# **Applications**

- > Class EA/category 6<sub>A</sub> standards compliant
- > Independent third party verified performance
- > Terminates 22AWG to 26AWG cables

# Conformance

- > Electrically compliant beyond 500MHz
- > Supports TIA 568A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# Ordering Information

DESCRIPTION	PART NUMBER
Screened category 6 <sub>A</sub> "HD" patch panel, 48 port Black 1U	800-002

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | TOOL FREE SCREENED 6A RJ45 KEYSTONE JACK**



OptronicsPlus category  $6_A$  Screened Tool Free Modular RJ45 Jacks exceed the transmission line performance requirements of IEC and TIA for class EA/category  $6_A$  systems. Their compact design has been engineered to optimise density in high performance applications such as data centres. Designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that minimises

# Features

- > Screened, for reliable transmission line performance
- > Repeatable tool-free terminations
- > Interoperable and backwards compatible
- > Spring loaded 360o screen termination
- > Colour coded stuffer-cap for easy cable lacing
- > Keyed stuffer-cap for reliable termination
- Low insertion force `clam action` assists tool-free termination. (LSA & 110 punch-down tools can also be used to effect termination)
- > Durability: Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Fits all keystone style face plates and floor boxes
- > Integral cable strain relief
- > Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Screened category 6 <sub>A</sub> Tool Free keystone jack	800-101
Unloaded Keystone patch panel	400-001

the time required by the installer to complete each termination. Each category  $6_A$  Screened RJ45 keystone jack complies with IEC 60603-7-Pt 51 (screened) and support all applications designed for class EA networks, as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 10GBASE-T (10 Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

# Applications

- > Independent third party verified component performance
- > Electrically compliant through 500MHz

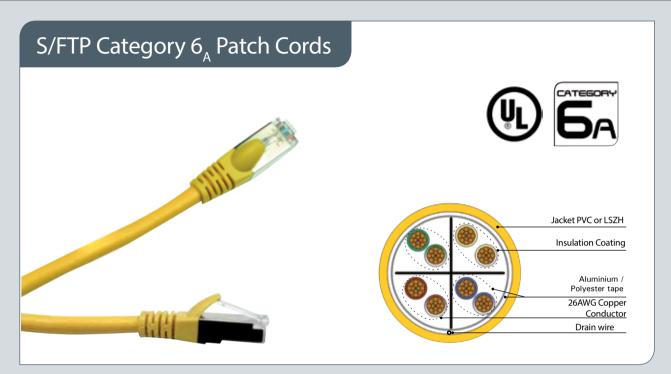
# Conformance

- > Class EA/category 6<sub>A</sub> standards compliant
- > Supports TIA 568A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



# www.optronicsnet.com

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | S/FTP CATEGORY 6A PATCH CORDS**



OptronicsPlus category  $6_A$  Screened patch cords exceed the transmission line performance requirements of IEC and TIA for class EA/category  $6_A$  systems. The products are designed for mechanical and electrical reliability using quality materials and processes to produce a patch cord solution which delivers a consistent high level of systems performance whilst incorporating design features that allow a "one style fits all" cord application. The low profile moulded boot and snag free

Features

- > Electrically compliant beyond 250MHz
- > Low Smoke Zero Halogen / PVC sheathed cable
- Low profile moulded strain relief boot for use with blade servers
- PimF style cable (Individual foil screened pairs with overall foil screen)
- > Screened category 6<sub>A</sub> RJ45 plug
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 7 standard lengths (1m, 2m, 3m, 5m, 10m, 15m, & 20m)
- > Other lengths and colours available upon request\*
- > Individually bagged with traceability information
- > Part of the 25 year Optronics systems warranty programme

\* Subject to MOQ

# **Applications**

> Class EA/category 6<sub>A</sub> standards compliant

# Conformance

> REACH / SvHC compliant regulation (EC) No. 1907/2006

latching allows the patch cords to be deployed within even the most densely populated network installations utilising the latest blade server technology. Each category  $6_A$  patch cord is manufactured and tested in accordance with IEC 61935-2 and comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and TIA 568C and support all applications designed for class EA/category  $6_A$  applications such as ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

# **Technical Specifications**

CONSTRUC	CTION	VALUE		
	AWG	26		
Conductors	Size (mm)	7/0.20 +/- 0.008		
	Material	Bare Copper		
Insulators	Diameter (mm)	0.97+/-0.05		
Insulators	Material	Polyolefin		
	External O.D.	6.0 +/- 0.20		
Jacket	Thickness (mm)	0.5		
	Material	PVC or LSZH		
Teres	Material	Aluminium/Polyester		
Таре	Coverage (%)	125		

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | S/FTP CATEGORY 6A PATCH CORDS**

# S/FTP Category 6<sub>A</sub> Patch Cords

# PVC

	PART NUMBER	METRE
	991-101	1
	991-102	2
	991-103	3
GREY	991-105	5
	991-110	10
	991-115	15
	991-120	20
	991-201	1
	991-202	2
	991-203	3
RED	991-205	5
	991-210	10
	991-215	15
	991-220	20
	991-301	1
	991-302	2
	991-303	3
BLUE	991-305	5
	991-310	10
	991-315	15
	991-320	20

	PART NUMBER	METRE
	991-401	1
	991-402	2
ş	991-403	3
<b>VELLOW</b>	991-405	5
	991-410	10
	991-415	15
	991-520	20
	991-501	1
	991-502	2
z	991-503	3
GREEN	991-505	5
ט	991-510	10
	991-515	15
	991-520	20
	991-601	1
	991-602	2
ж	991-603	3
WHITE*	991-605	5
>	991-610	10
	991-615	15
	991-620	20

	PART NUMBER	METRE
*)	991-701	1
	991-702	2
	991-703	3
<b>BLACK*</b>	991-705	5
BL	991-710	10
	991-715	15
	991-720	20
	991-801	1
	991-802	2
ORANGE*	991-803	3
	991-805	5
OR	991-810	10
	991-815	15
	991-820	20

\*White, Orange and Black may be subject to minimum order quantities

LSZH

		METDE
1	PART NUMBER	METRE
	992-101	1
	992-102	2
	992-103	3
GREY	992-105	5
	992-110	10
	992-115	15
	992-120	20
	992-201	1
	992-202	2
	992-203	3
RED	992-205	5
	992-210	10
	992-215	15
	992-220	20

	PART NUMBER	METRE
	992-401	1
	992-402	2
≥	992-403	3
VELLOW	992-405	5
¥	992-410	10
	992-415	15
	992-420	20
	992-501	1
	992-502	2
z	992-503	3
GREEN	992-505	5
U	992-510	10
	992-515	15
	992-520	20

	PART NUMBER	METRE
	992-701	1
	992-702	2
*	992-703	3
BLACK*	992-705	5
	992-710	10
	992-715	15
	992-720	20
	992-801	1
	992-802	2
*u	992-803	3
ORANGE*	992-805	5
8 B	992-810	10
	992-815	15
	992-820	20

\*White, Orange and Black may be subject to minimum order quantities

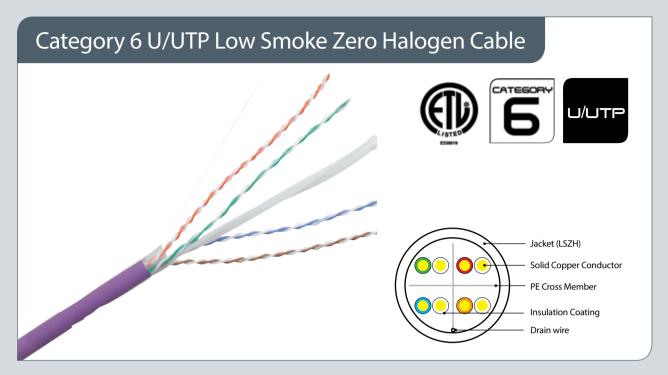
# www.optronicsnet.com

# OptronicsPlus Copper Cabling System

# Category 6

Cable	74
Patch Panels	82
Keystone Jacks	85
Shuttered Modules	88
Patch Cords	89

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CAT6 U/UTP LSZH CABLE**



OptronicsPlus category 6 U/UTP LSZH cable is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

#### **Applicable Standards**

The category 6 U/UTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### Other Relevant Information

> REACH / SvHC Compliant regulation (EC) No. 1907/2006

Pair colour code:
 Pair 1: Orange and White/Orange
 Pair 2: Blue and White/Blue

- Pair 3: Brown and White/Brown
- Pair 4: Green and White/Green

Our category 6 U/UTP LSZH cable exceeds the minimum specified performance for category 6 U/UTP cables and support all class E applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 6 U/UTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CAT6 U/UTP LSZH CABLE**

#### Category 6 U/UTP Low Smoke Zero Halogen Cable

#### **Technical Specifications**

CONSTRUCTION	
Conductors	A single strand of 23AWG (0.574mm) solid copper
Insulation	Polyethylene
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross-filler to form a cohesive unit.
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)
Diameter	6.0mm

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 40dB

#### **Mechanical Characteristics**

TEMPERATURE RANGE		
Operation	-20°C to + 60°C	
Installation 0°C to +50°C		
Storage -20°C to + 70°C		

MINIMUM BEND RADII		
Installation 8 x cable diameter		
Installed	4 x cable diameter 🧹	

MAXIMUM TENSILE FORCE	
During Installation	100N

# Transmission line performance at 20°C

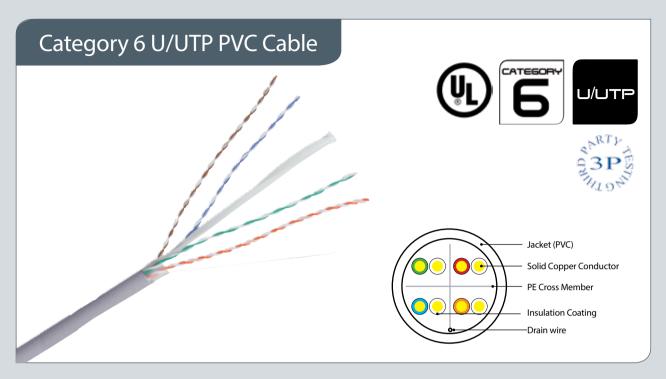
FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17.0	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 U/UTP LSZH 305m Box	UTP6305LSZH
Category 6 U/UTP LSZH 500m Reel	UTP6500LSZH

75

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 U/UTP PVC CABLE**



OptronicsPlus category 6 U/UTP PVC cable is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres. Cable performance is routinely verified by the independent testing laboratory 3P as part of an

#### **Applicable Standards**

The category 6 U/UTP PVC cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### Other Relevant Information

- > REACH / SvHC Compliant regulation (EC) No. 1907/2006
- > Pair colour code:
  - Pair 1: Orange and White/Orange Pair 2: Blue and White/Blue Pair 3: Brown and White/Brown Pair 4: Green and White/Green

ongoing maintenance programme. Our category 6 U/UTP PVC cable exceeds the minimum specified performance for category 6 U/UTP cables and support all class E applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 6 U/UTP PVC cables exceed the requirements of:

> IEC 60332-1-2

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 U/UTP PVC CABLE**

#### Category 6 U/UTP PVC Cable

#### **Technical Specifications**

CONSTRUCTION	
Conductors	A single strand of 23AWG (0.574mm) solid copper
Insulation	Polyethylene
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross-filler to form a cohesive unit.
Sheath	A uniform layer of grey coloured polyvinyl chloride (PVC) compound (RAL 7035)
Diameter	6.0mm

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 40dB

#### **Mechanical Characteristics**

TEMPERATURE RANGE		
Operation	-20°C to + 60°C	
Installation	0°C to +50°C	
Storage -20°C to + 70°C		

MINIMUM BEND RADII		MAXIMUM TENSILE FORCE
Installation	8 x cable diameter	During Installation
Installed	4 x cable diameter	

# Transmission line performance at 20°C

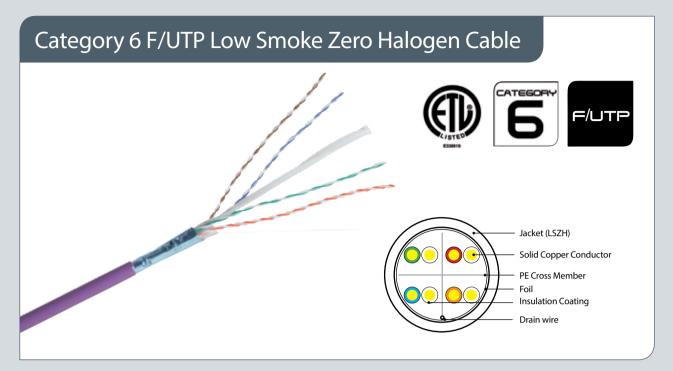
FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17.0	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 U/UTP PVC 305m Box	UTP6305PVC
Category 6 U/UTP PVC 500m Reel	UTP6500PVC

100N

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 F/UTP LSZH CABLE**



OptronicsPlus category 6 F/UTP LSZH cable is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

# **Applicable Standards**

The category 6 F/UTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

# Other Relevant Information

> REACH / SvHC Compliant regulation (EC) No. 1907/2006

> Pair colour code:

- Pair 1: Orange and White/Orange
- Pair 2: Blue and White/Blue
- Pair 3: Brown and White/Brown
- Pair 4: Green and White/Green

Our category 6 F/UTP LSZH cable exceeds the minimum specified performance for category 6 F/UTP cables and support all class E applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 6 F/UTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 F/UTP LSZH CABLE**

8 x cable diameter 4 x cable diameter

#### Category 6 F/UTP Low Smoke Zero Halogen Cable

#### **Technical Specifications**

CONSTRUCTION		
Conductors	A single strand of 23AWG (0.574mm) solid copper	
Insulation	Polyethylene	
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross-filler to form a cohesive unit.	
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)	
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)	

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 40dB

#### **Mechanical Characteristics**

TEMPERATURE RANGE		MINIMUM BEND	RADII	
	Operation	-20°C to + 60°C	Installation	8 x ca
	Installation	0°C to +50°C	Installed	4 x ca
	Storage	-20°C to + 70°C		

MAXIMUM TENSILE FORCE	
During Installation	100N

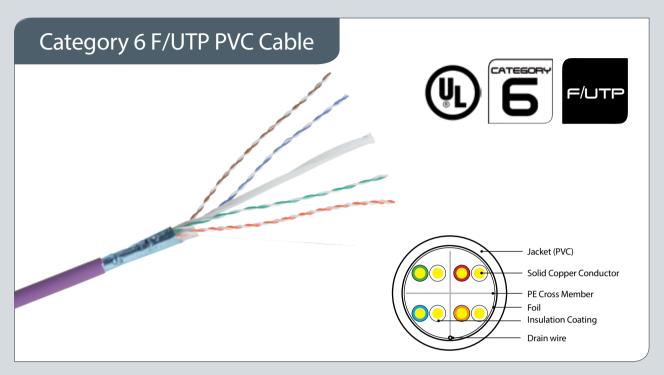
#### Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17.0	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 F/UTP LSZH 305m Box	F/UTP6305LSZH
Category 6 F/UTP LSZH 500m Reel	F/UTP6500LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 F/UTP PVC CABLE**



OptronicsPlus category 6 F/UTP PVC cables is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

# **Applicable Standards**

The category 6 F/UTP PVC cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### Other Relevant Information

> REACH / SvHC Compliant regulation (EC) No. 1907/2006

> Pair colour code:

- Pair 1: Orange and White/Orange
- Pair 2: Blue and White/Blue
- Pair 3: Brown and White/Brown Pair 4: Green and White/Green

Our category 6 F/UTP PVC cable exceeds the minimum specified performance for category 6 F/UTP cables and support all class E applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 6 F/UTP PVC cables exceed the requirements of:

> IEC 60332-1-2

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 6 F/UTP PVC CABLE**

8 x cable diameter 4 x cable diameter

# Category 6 F/UTP PVC Cable

#### **Technical Specifications**

CONSTRUCTION		
Conductors	A single strand of 23AWG (0.574mm) solid copper	
Insulation	Polyethylene	
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross-filler to form a cohesive unit.	
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)	
Sheath	A uniform layer of grey coloured polyvinyl chloride (PVC) compound (RAL 7035)	

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	100 ± 15Ω
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 55dB

# **Mechanical Characteristics**

TEMPERATURE RANGE		MINIMUM BEND	RADII	
	Operation	-20°C to + 60°C	Installation	8 x ca
	Installation	0°C to +50°C	Installed	4 x ca
	Storage	-20°C to + 70°C		

MAXIMUM TENSILE FORCE	
During Installation	100N

# Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17.0	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 6 F/UTP PVC 305m Box	F/UTP6305PVC
Category 6 F/UTP PVC 500m Reel	F/UTP6500PVC

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | SCREENED CATEGORY 6 RJ45 PATCH PANEL**

#### Screened Category 6 RJ45 Patch Panel



OptronicsPlus Screened category 6 patch panels exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The panels are designed for mechanical and electrical reliability whilst delivering a consistent high level of systems performance.

Features

- > 19" rack mountable
- > 24 ports in 1U space
- > 8 port RJ45 modules
- > Universal wiring blocks for easy termination
- > Right-angled wiring block orientation for easier installation
- > Colour coded wiring blocks for easy cable lacing
- > Integral rear cable management
- > Durability: Socket Contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

#### Ordering Information

DESCRIPTION	PART NUMBER
Screened category 6 patch panel - 24 port Black 1U	601-001

Our category 6 patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class E/category 6 applications including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### **Applications**

- > Class E/category 6 standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 250MHz
- > Supports TIA 568A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



OptronicsPlus Screened category 6 "High Density" patch panels exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. These panels are genuine cabinet space saving products, which are designed for mechanical and electrical reliability whilst delivering a consistent high level of systems performance and halving

#### Features

- > 19" rack mountable
- > 48 ports in 1U space
- > 8 port RJ45 modules
- > Universal wiring blocks for easy termination
- > Right-angled wiring block orientation for easier installation
- > Colour coded wiring blocks for easy cable lacing
- > Integral rear cable management
- > Durability:
  - Socket Contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Screened category 6 "HD" patch panel - 48 port Black 1U	601-002

the cabinet space required in high density installations. Each category 6 "High Density patch panel" complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class E/category 6 applications including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### **Applications**

- > Class E/category 6 standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 250MHz
- > Supports TIA 568A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT6 RJ45 PATCH PANEL**



OptronicsPlus Unscreened category 6 patch panels range exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The products are designed for mechanical and electrical reliability, using quality materials and processes, to deliver a panel solution which delivers a consistent

Features

- > 19" rack mountable
- > 6 port RJ45 modules
- > Universal wiring blocks for easy termination
- > Colour coded wiring blocks for easy cable lacing
- > Integral label feature
- > Individual port identification
- > Rear cable management bar
- > Durability:
  - Socket Contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

high level of systems performance. Each category 6 patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class E/category 6 applications including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

# Applications

- > Class E/category 6 standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 250MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened category 6 RJ45 patch panel, 24 port Black 1U	600-001
Unscreened category 6 RJ45 patch panel, 48 port Black 2U	600-002

#### OPTRONICSPLUS COPPER CABLING SYSTEM SCREENED CAT 6 RJ45 TOOL FREE KEYSTONE JACKS

#### Screened Category 6 RJ45 Tool Free Keystone Jacks



OptronicsPlus Screened category 6 Tool Free RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The jacks have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that minimises the time required by the installer to complete each termination. Each

Features

- > Screened and unscreened versions available
- > Repeatable tool-free terminations
- > Colour coded stuffer-cap for easy cable lacing
- > Keyed stuffer-cap for reliable termination
- Low insertion force `clam action` assists tool-free termination (LSA & 110 punch-down tools can also be used to effect termination)
- > Integral cable strain relief
- > Durability: Jack contacts: 750 plug insertion cycles minimum
- Wiring block: 25 termination cycles minimum
- > Fits all keystone style face plates and floor boxes
- > Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Screened category 6 tool free keystone jack	601-101
Unloaded keystone patch panel	400-001

category 6 Modular RJ45 keystone jack complies with IEC 60603-7-Pt 5 (screened) and support all applications designed for class E networks, as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### **Applications**

> Class E/category 6 standards compliant

#### Conformance

- > Electrically compliant beyond 250MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



#### **OPTRONICSPLUS COPPER CABLING SYSTEM | TOOL FREE UNSCREENED JACKS**

#### Tool Free Unscreened Category 6 RJ45 Keystone Jacks



Optronics category 6 Tool Free RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The jacks have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that minimises the time required by the

#### Features

- > Screened and unscreened versions available
- > Repeatable tool-free terminations
- > Colour coded stuffer-cap for easy cable lacing
- > Keyed stuffer-cap for reliable termination
- > Low insertion force `clam action` assists tool-free termination (LSA & 110 punch-down tools can also be used to effect termination)
- > Integral cable strain relief
- Durability: Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- Fits all keystone style face plates and floor boxes
- Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened category 6 tool free keystone jack, black	600-101
Unscreened category 6 tool free keystone jack, white	600-102
Unloaded keystone patch panel	400-001

installer to complete each termination. Each category 6 Tool Free RJ45 keystone jack complies with IEC 60603-7-Pt 4 (unscreened) and support all applications designed for class E networks, as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### **Applications**

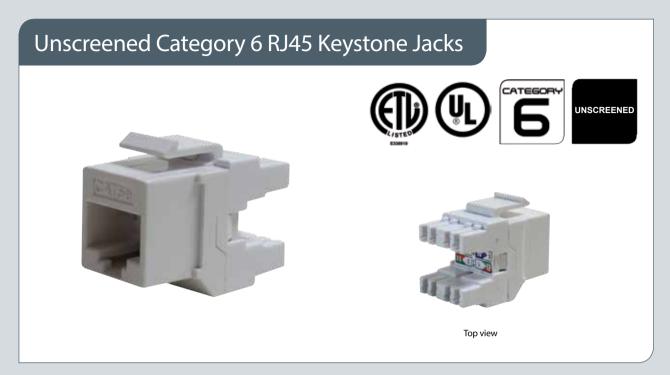
- > Class E/category 6 standards compliant
- > Independent third party verified performance
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant through 250MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT6 RJ45 KEYSTONE JACKS**



OptronicsPlus category 6 RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The jacks have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that optimises the termination process

#### Features

- Universal wiring block accommodates both 110 and LSA tools
- > Colour coded wiring blocks assist termination
- > Durability: Jack contacts: 750 plug insertion cycles minimum
- Wiring block: 25 termination cycles minimum
- > Fits all keystone style face plates and floor boxes
- > Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

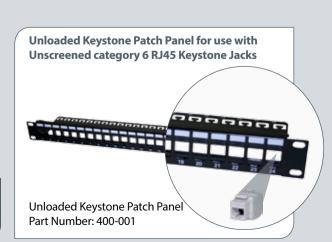
through the use of a universal wiring block. Each category 6 RJ45 keystone jack complies with IEC 60603-7-Pt 4 (unscreened) and support all applications designed for class E networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as ATM 1200, 1000BASE-T (Gigabit Ethernet), and 1G FCBASE-T.

#### **Applications**

> Class E/category 6 standards compliant

#### Conformance

- > Electrically compliant through 250MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened category 6 keystone jack - Black	600-103
Unscreened category 6 keystone jack - White	600-104
Unloaded keystone patch panel	400-001

#### **Optronics Copper Structured Cabling Solutions**

87

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT 6 LOW PROFILE MODULES**



OptronicsPlus category 6 low profile shuttered RJ45 modules exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The products have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that is optimised for shallow back boxes. Each category 6 low profile shuttered RJ45 module complies with IEC 60603-7-Pt 4 and support all applications designed for class E networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### Applications

> Class E/category 6 standards compliant

#### Conformance

- > Electrically compliant beyond 250MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

#### Features

- > Euro-Mod and LJ6C versions
- > Integral shuttered facia
- > Integral label window
- > Universal, colour coded wiring block for easy termination
- > Integral cable strain relief
- > Durability:
- Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened LJ6C category 6 Low Profile Shuttered Module 38.5mm x 25mm White	600-301
Unscreened category 6 Low Profile Shuttered Module 50mm x 25mm White	600-401

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | U/UTP CATEGORY 6 PATCH CORDS**



OptronicsPlus category 6 Unscreened patch cords exceed the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The patch cords are designed for mechanical and electrical reliability, using quality materials and processes, to provide a patch cord solution which delivers a consistent high level of systems performance whilst incorporating design features that allow a "one style fits all" patch cord application. The low profile moulded boot and snag

#### Features

- > Electrically compliant beyond 250MHz
- > Low Smoke Zero Halogen sheathed cable / PVC sheathed cable
- > Low profile moulded strain relief boot for use with blade servers
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 7 standard lengths (1m, 2m, 3m, 5m, 10m, 15m, & 20m)
- > Other lengths and colours available upon request\*
- > Individually bagged with traceability information
- Part of the 25 year Optronics systems warranty programme
   \* Subject to MOQ

#### **Applications**

> Class E/category 6 standards compliant

#### Conformance

> REACH / SvHC compliant regulation (EC) No. 1907/2006

free latching allows the patch cords to be deployed within even the most densely populated network installations deploying the latest blade server technology. Each category 6 patch cord is manufactured and tested in accordance with IEC 61935-2 and comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class E/category 6 applications such as ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

#### **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	26
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC/LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | U/UTP CATEGORY 6 PATCH CORDS**

# U/UTP Category 6 Patch Cords

#### PVC

	PART NUMBER	METRE
	610-101	1
	610-102	2
≻	610-103	3
GREY	610-105	5
	610-110	10
	610-115	15
	610-120	20
	610-201	1
	610-202	2
	610-203	3
RE	610-205	5
	610-210	10
	610-215	15
	610-220	20
	610-301	1
	610-302	2
ш	610-303	3
BLUE	610-305	5
•	610-310	10
	610-315	15
	610-320	20

	PART NUMBER	METRE
	610-401	1
	610-402	2
Ž	610-403	3
VELLOW	610-405	5
₩	610-410	10
	610-415	15
	610-520	20
	610-501	1
	610-502	2
z	610-503	3
GREEN	610-505	5
ש	610-610	10
	610-515	15
	610-520	20
	610-601	1
	610-602	2
*	610-603	3
WHITE*	610-605	5
N	610-610	10
	610-615	15
	610-620	20

	PART NUMBER	METRE
	610-701	1
	610-702	2
*	610-703	3
<b>BLACK</b> *	610-705	5
8	610-710	10
	610-715	15
	610-720	20
	610-701	1
	610-702	2
Щ ц	610-703	3
Å	610-705	5
<b>ORANGE</b> *	610-710	10
	610-715	15
	610-720	20

\*White, Orange and Black may be subject to minimum order quantities

# LSZH

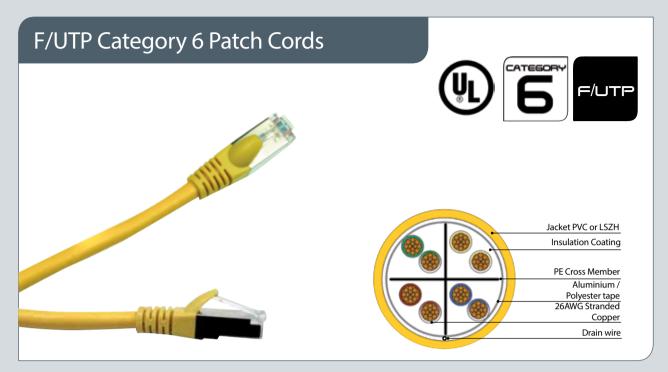
	PART NUMBER	METRE
	620-101	1
	620-102	2
▶	620-103	3
GREY	620-105	5
	620-110	10
	620-115	15
	620-120	20
	620-201	1
	620-202	2
	620-203	3
RED	620-205	5
	620-210	10
	620-215	15
	620-220	20
	620-301	1
	620-302	2
ш	620-303	3
BLUE	620-305	5
	620-310	10
	620-315	15
	620-320	20

	PART NUMBER	METRE
	620-401	1
	620-402	2
Š	620-403	3
VELLOW	620-405	5
ž	620-410	10
	620-415	15
	620-420	20
	620-501	1
	620-502	2
S	620-503	3
GREEN	620-505	5
ט	620-510	10
	620-515	15
	620-620	20
	620-601	1
	620-602	2
ж	620-603	3
WHITE*	620-605	5
≥	620-610	10
	620-615	15
	620-620	20

	PART NUMBER	METRE
	620-701	1
	620-702	2
*	620-703	3
<b>BLACK</b> *	620-705	5
B	620-710	10
	620-715	15
	620-720	20
	620-801	1
	620-802	2
<b>ORANGE</b> *	620-803	3
Ž.	620-805	5
OR/	620-810	10
	620-815	15
	620-820	20

\*White, Orange and Black may be subject to minimum order quantities

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | F/UTP CATEGORY 6 PATCH CORDS**



OptronicsPlus category 6 Screened patch cord exceeds the transmission line performance requirements of IEC and TIA for class E/category 6 systems. The products are designed for mechanical and electrical reliability using quality materials and processes to deliver a patch cord solution which provides a consistent high level of systems performance whilst incorporating design features that allow a "one style fits all" cord application. The low profile moulded boot and snag free

#### Features

- > Electrically compliant beyond 250MHz
- > Low Smoke Zero Halogen / PVC sheathed cable
- > Low profile moulded strain relief boot for use with blade servers
- > Aluminised polyester tape screen and drain wire
- > Screened plug
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 7 standard lengths (1m, 2m, 3m, 5m, 10m, 15m, & 20m)
- > Other lengths and colours available upon request\*
- > Individually bagged with traceability information
- Part of the 25 year Optronics systems warranty programme \* Subject to MOQ

#### Applications

> Class E/category 6 standards compliant

#### Conformance

> REACH / SvHC compliant regulation (EC) No. 1907/2006

latching allows the patch cords to be deployed within even the most densely populated network installations utilising the latest blade server technology. Each category 6 patch cord is manufactured and tested in accordance with IEC 61935-2 and comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and TIA 568C and support all applications designed for class E/category 6 applications such as ATM 1200, 1000BASE-T (Gigabit Ethernet) and 1G FCBASE-T.

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	26
Conductors	Size (mm)	0.915 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.97+/-0.05
insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC/LSZH
Tama	Material	Aluminium/Polyester
Таре	Coverage (%)	125

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | F/UTP CATEGORY 6 PATCH CORDS**

# F/UTP Category 6 Patch Cords

#### PVC

	PART NUMBER	METRE
	630-101	1
	630-102	2
≻	630-103	3
GREY	630-105	5
0	630-110	10
	630-115	15
	630-120	20
	630-201	1
	630-202	2
	630-203	3
RED	630-205	5
	630-210	10
	630-215	15
	630-220	20
	630-301	1
	630-302	2
	630-303	3
BLUE	630-305	5
8	630-310	10
	630-315	15
	630-320	20

	PART NUMBER	METRE
	630-401	1
	630-402	2
<u>≷</u>	630-403	3
VELLOW	630-405	5
2	630-410	10
	630-415	15
	630-520	20
	630-501	1
	630-502	2
z	630-503	3
GREEN	630-505	5
ש	630-630	10
	630-515	15
	630-520	20
	630-601	1
	630-602	2
ж	630-603	3
NHITE*	630-605	5
Ī	630-630	10
	630-615	15
	630-620	20

	PART NUMBER	METRE
	630-701	1
	630-702	2
*	630-703	3
BLACK*	630-705	5
B	630-710	10
	630-715	15
	630-720	20
	630-701	1
	630-702	2
<u></u>	630-703	3
Ž	630-705	5
ORANGE*	630-710	10
	630-715	15
	630-720	20

\*White, Orange and Black may be subject to minimum orde quantities

# LSZH

	PART NUMBER	METRE
	640-101	1
	640-102	2
₋	640-103	3
GREY	640-105	5
<b>U</b>	640-110	10
	640-115	15
	640-120	20
	640-201	1
	640-202	2
	640-203	3
E	640-205	5
	640-210	10
	640-215	15
	640-220	20
	640-301	1
	640-302	2
ш	640-303	3
BLUE	640-305	5
	640-310	10
	640-315	15
	640-320	20 /

	PART NUMBER	METRE
	640-401	1
	640-402	2
Ž	640-403	3
VELLOW	640-405	5
ΥE	640-410	10
	640-415	15
	640-420	20
	640-501	1
	640-502	2
z	640-503	3
GREEN	640-505	5
ש	640-510	10
	640-515	15
	640-640	20
	640-601	1
	640-602	2
ж.	640-603	3
WHITE*	640-605	5
3	640-610	10
	640-615	15
	640-640	20

	PART NUMBER	METRE
	640-701	1
	640-702	2
*	640-703	3
<b>BLACK</b> *	640-705	5
B	640-710	10
	640-715	15
	640-720	20
	640-801	1
	640-802	2
ORANGE*	640-803	3
Ž	640-805	5
OR	640-810	10
	640-815	15
	640-820	20 /

\*White, Orange and Black may be subject to minimum order quantities

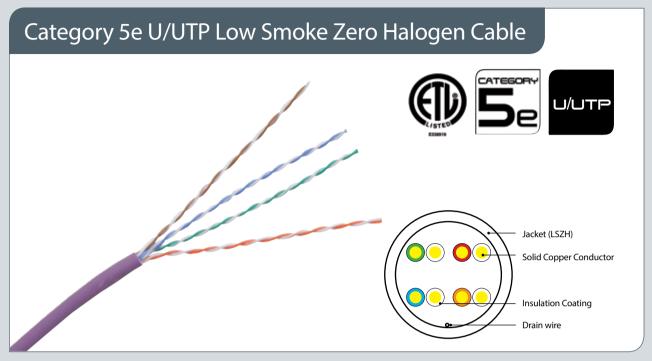
92

# OptronicsPlus Copper Cabling System

# Category 5e

Cable	94
Patch Panels	102
Keystone Jacks	105
Shuttered Modules	108
Patch Cords	109

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E U/UTP LSZH CABLE**



OptronicsPlus category 5e U/UTP LSZH cable is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres. Our category 5e U/UTP LSZH

#### **Applicable Standards**

The category 5e U/UTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > EN 50173 > IEC 61156-5
- > EN 50288-3-1

# Other Relevant Information

- > REACH / SvHC compliant regulation (EC) No. 1907/2006 Pair colour code: Data 1 Organ and White (Organ and Data 2007)
  - Pair 1: Orange and White/Orange
  - Pair 2: Blue and White/Blue
  - Pair 3: Brown and White/Brown Pair 4: Green and White/Green

cable exceeds the minimum specified performance for category 5e U/UTP cables and supports all class D applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 5e U/UTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E U/UTP LSZH CABLE**

#### Category 5e U/UTP Low Smoke Zero Halogen Cable

#### **Technical Specifications**

CONSTRUCTION						
Conductors	A single strand of 23AWG (0.51mm) solid copper					
Insulation	Polyethylene					
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together to form a cohesive unit.					
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)					
Diameter	5.0mm					

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km

# **Mechanical Characteristics**

TEMPERATURE RANGE			MINIMUM BEND	RADII		MAXIMUM TENSILE FOR	E
Operation	-20°C to + 60°C		Installation	8 x cable diameter		During Installation	100N
Installation	0°C to +50°C	1	Installed	4 x cable diameter	1		
Storage	-20°C to + 70°C	7					

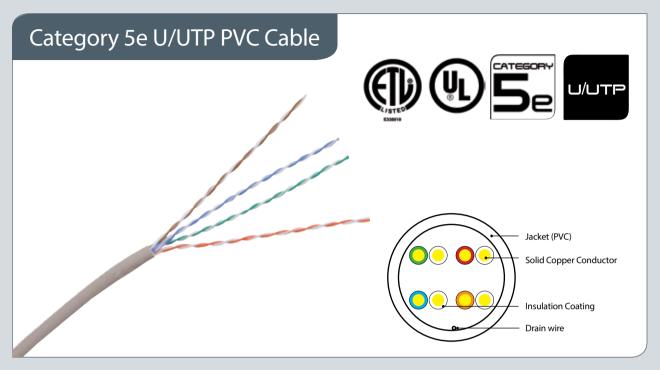
#### Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	65.3	63.2	62.3	63.8	60.8	20.0
4	4.0	56.3	52.3	53.3	51.8	48.8	23.1
10	6.3	50.3	44.0	47.3	43.8	40.8	24.5
16	8.0	47.3	39.3	44.2	39.7	36.7	25.0
20	9.0	45.8	46.8	42.8	37.8	34.8	25.0
31.25	11.4	42.9	31.5	39.9	33.9	30.9	23.6
62.5	16.5	38.4	21.9	35.4	27.9	24.9	21.5
100	21.3	35.3	14.0	32.3	23.8	20.8	20.1

# **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e U/UTP LSZH 305m Box	UTP5E305LSZH
Category 6 F/UTP LSZH 500m Reel	UTP5E500LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E U/UTP PVC CABLE**



OptronicsPlus category 5e U/UTP PVC cable is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

#### **Applicable Standards**

The category 5e U/UTP PVC cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### Other Relevant Information

> REACH / SvHC compliant regulation (EC) No. 1907/2006

> Pair colour code:

- Pair 1: Orange and White/Orange
- Pair 2: Blue and White/Blue
- Pair 3: Brown and White/Brown
- Pair 4: Green and White/Green

Our category 5e U/UTP PVC cable exceeds the minimum specified performance for category 5e U/UTP cables and support all class D applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 5e U/UTP PVC cables exceed the requirements of:

> IEC 60332-1-2

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E U/UTP PVC CABLE**

8 x cable diameter

4 x cable diameter

#### Category 5e U/UTP PVC Cable

# **Technical Specifications**

CONSTRUCTION	l			
Conductors	A single strand of 23AWG (0.51mm) solid copper			
Insulation	Polyethylene			
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together to form a cohesive unit.			
Sheath	A uniform layer of grey coloured PVC compound (RAL 7035)			
Diameter	5.0mm			

Mechanical Characteristics
----------------------------

-20°C to + 60°C

-20°C to + 70°C

0°C to +50°C

**TEMPERATURE RANGE** 

Operation

Installation

Storage

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km
Transfer Impedance	≥ 40dB

MAXIMUM TENSILE FORCE	
During Installation	100N

#### Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB 38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	65.3	63.2	62.3	63.8	60.8	20.0
4	4.0	56.3	52.3	53.3	51.8	48.8	23.1
10	6.3	50.3	44.0	47.3	43.8	40.8	24.5
16	8.0	47.3	39.3	44.2	39.7	36.7	25.0
20	9.0	45.8	46.8	42.8	37.8	34.8	25.0
31.25	11.4	42.9	31.5	39.9	33.9	30.9	23.6
62.5	16.5	38.4	21.9	35.4	27.9	24.9	21.5
100	21.3	35.3	14.0	32.3	23.8	20.8	20.1

MINIMUM BEND RADII

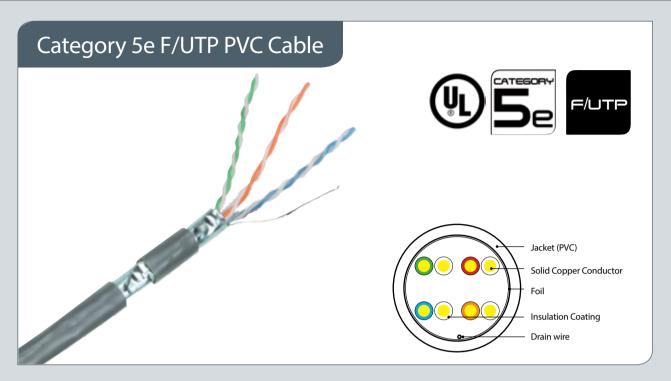
Installation

Installed

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e U/UTP PVC 305m Box	UTP5E305PVC
Category 5e U/UTP PVC 500m Reel	UTP5E500PVC

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E F/UTP PVC CABLE**



OptronicsPlus category 5e F/UTP PVC cables is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

# **Applicable Standards**

The category 5e F/UTP PVC cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### Other Relevant Information

- > REACH / SvHC compliant regulation (EC) No. 1907/2006
- > Pair colour code:
  - Pair 1: Orange and White/Orange
  - Pair 2: Blue and White/Blue
  - Pair 3: Brown and White/Brown
  - Pair 4: Green and White/Green

Our category 5e F/UTP PVC cable exceeds the minimum specified performance for category 5e F/UTP cables and support all class D applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 5e F/UTP PVC cables exceed the requirements of: > IEC 60332-1-2

**OptronicsPlus Category 5e** 

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E F/UTP PVC CABLE**

#### Category 5e F/UTP PVC Cable

#### **Technical Specifications**

CONSTRUCTION	
Conductors	A single strand of 24AWG (0.51mm) solid copper
Insulation	Polyethylene
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together to form a cohesive unit.
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire)
Sheath	A uniform layer of grey coloured PVC compound (RAL 7035)
Diameter	5.0mm

ELECTRICAL PROPERTIES AT 200C	
Characteristic Impedance (1-100MHz)	$100 \pm 15\Omega$
DC Loop Resistance	≤ 19.0Ω/100m
Resistance Unbalance	≤ 2%
Capacitance Unbalance to Earth	≤ 1600 pF/km
Nominal Velocity of Propagation	67%
Propagation Delay (Nominal)	≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor /Conductor	1000V
Insulation Resistance (500V d.c)	≥ 500MΩ.km

#### **Mechanical Characteristics**

TEMPER	TEMPERATURE RANGE			MINIMUM BEND RADII		MAXIMUM TENSILE FORCE	
Operation		-20°C to + 60°C		Installation	8 x cable diameter	During Installation	100N
Installation	ı	0°C to +50°C	]	Installed	4 x cable diameter		
Storage		-20°C to + 70°C /	7				

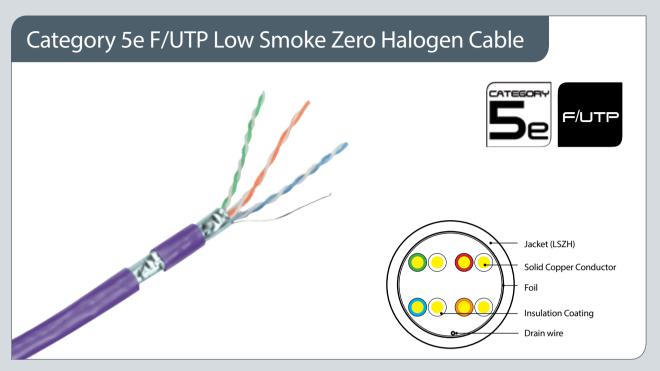
#### Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	65.3	63.2	62.3	63.8	60.8	20.0
4	4.0	56.3	52.3	53.3	51.8	48.8	23.1
10	6.3	50.3	44.0	47.3	43.8	40.8	24.5
16	8.0	47.3	39.3	44.2	39.7	36.7	25.0
20	9.0	45.8	46.8	42.8	37.8	34.8	25.0
31.25	11.4	42.9	31.5	39.9	33.9	30.9	23.6
62.5	16.5	38.4	21.9	35.4	27.9	24.9	21.5
100	21.3	35.3	14.0	32.3	23.8	20.8	20.1

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e F/UTP PVC 305m Box	F/UTP5E305PVC
Category 5e F/UTP PVC 500m Reel	F/UTP5E500PVC

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E F/UTP LSZH CABLE**



OptronicsPlus category 5e F/UTP LSZH cables is designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

# **Applicable Standards**

The category 5e F/UTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- > ISO/IEC 11801 2<sup>nd</sup> Edition
- > ANSI/TIA 568-C.2
- > EN 50173
- > IEC 61156-5
- > EN 50288-3-1

#### **Other Relevant Information**

- > REACH / SvHC compliant regulation (EC) No. 1907/2006
- > Pair colour code:
  - Pair 1: Orange and White/Orange
  - Pair 2: Blue and White/Blue
  - Pair 3: Brown and White/Brown
  - Pair 4: Green and White/Green

Our category 5e F/UTP LSZH cable exceeds the minimum specified performance for category 5e F/UTP cables and support all class D applications as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 such as 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Fire Performance**

Category 5e F/UTP LSZH cables exceed the requirements of:

- > IEC 60332-1-2
- > IEC 60754-2
- > IEC 61034

100

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | CATEGORY 5E F/UTP LSZH CABLE**

#### Category 5e F/UTP Low Smoke Zero Halogen Cable

#### **Technical Specifications**

CONSTRUCTION	
Conductors	A single strand of 24AWG (0.51mm) solid copper
Insulation	Polyethylene
Cable	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together to form a cohesive unit.
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire)
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)
Diameter	5.0mm

$100 \pm 15\Omega$
≤ 19.0Ω/100m
≤ 2%
≤ 1600 pF/km
67%
≤ 534ns/100m
1000V
≥ 500MΩ.km

#### **Mechanical Characteristics**

TEMPERATURE RANGE			
Operation	-20°C to + 60°C		
Installation	0°C to +50°C		
Storage	-20℃ to + 70℃		

MINIMUM BEND RADII				
Installation	8 x cable diameter			
Installed	4 x cable diameter			

MAXIMUM TENSILE FORCE	
During Installation	100N

# Transmission line performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	42.0NEXT dB38.3	ACR dB/100M	PSNEXT dB	ELFEXT dB/100M	PSELFEXT dB/100M	RETURN LOSS
1	2.1	65.3	63.2	62.3	63.8	60.8	20.0
4	4.0	56.3	52.3	53.3	51.8	48.8	23.1
10	6.3	50.3	44.0	47.3	43.8	40.8	24.5
16	8.0	47.3	39.3	44.2	39.7	36.7	25.0
20	9.0	45.8	46.8	42.8	37.8	34.8	25.0
31.25	11.4	42.9	31.5	39.9	33.9	30.9	23.6
62.5	16.5	38.4	21.9	35.4	27.9	24.9	21.5
100	21.3	35.3	14.0	32.3	23.8	20.8	20.1

#### **Ordering Information**

DESCRIPTION	PART NUMBER
Category 5e F/UTP LSZH 305m Box	F/UTP5E305LSZH
Category 5e F/UTP LSZH 500m Reel	F/UTP5E500LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | SCREENED CAT5E RJ45 PATCH PANEL**



OptronicsPlus Screened category 5e patch panels exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The panels are designed for mechanical and electrical reliability using quality materials and processes to deliver a panel solution which delivers a consistent

#### Features

- > 19" rack mountable
- > 24 ports in 1U space
- > 8 port RJ45 modules
- > Individual port identification
- > Universal wiring blocks for easy termination
- > Right angled wiring block orientation for easier installation
- Colour coded wiring blocks for easy cable lacing
- > Integral rear cable management
- > Durability: Socket Contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Screened category 5e patch panel, 24 port Black 1U	501-001

high level of systems performance. Our category 5e patch panels comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class D/category 5e applications including 1000BASE-T (Gigabit Ethernet), ATM 155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

#### **Applications**

- > Class D/category 5e standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



OptronicsPlus Screened category 5e "High Density" patch panels exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. These are 'real' cabinet space saving products designed for mechanical and electrical reliability. The "High Density" panel delivers a consistent high level of systems performance whilst halving the cabinet space

#### Features

- > 19" rack mountable
- > 48 ports in 1U space
- > 8 port RJ45 modules
- > Individual port identification
- > Universal wiring blocks for easy termination
- > Right angled wiring block orientation for easier installation
- > Colour coded wiring blocks for easy cable lacing
- > Integral rear cable management
- > Durability: Socket contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- Earthing kit and cage nuts included as standard
- Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Screened category 5e "HD" patch panel, 48 port, Black, 1U	501-002

required in high density installations. Each category 5e "High Density" patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class D/category 5e applications such as 1000BASE-T (Gigabit Ethernet), ATM 155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

#### Applications

- > Class D/category 5e standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT5E RJ45 PATCH PANEL**



OptronicsPlus category 5e patch panels exceed the transmission line performance requirements of IEC and TIA for class D/ category 5e systems. The panels are designed for mechanical and electrical reliability using quality materials and processes to deliver a panel solution which delivers a consistent high level of

# systems performance. Each category 5e patch panel complies with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class D/category 5e applications including 1000BASE-T (Gigabit Ethernet), ATM 155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

#### Features

- > 19" rack mountable
- > 24 ports in 1U space / 48 ports in 2U space
- > 6 port RJ45 modules
- > Individual port identification
- > Integral label feature
- > Universal wiring blocks for easy termination
- > Colour coded wiring blocks for easy cable lacing
- > Rear cable management bar
- > Durability:
   Socket contacts: 750 plug insertion cycles minimum
   Wiring block: 25 termination cycles minimum
- Earthing kit and cage nuts included as standard
- > Part of the 25 year Optronics systems warranty programme

Applications

- > Class D/category 5e standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened category 5e patch panel, 24 port, Black, 1U	500-001
Unscreened category 5e patch panel, 48 port, Black, 2U	500-002

104

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | TOOL FREE SCREENED CAT5E RJ45 JACKS**



OptronicsPlus category 5e tool free RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The products have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that minimises the time required by the installer to complete each termination.

Features

- > Screened and unscreened versions available
- > Repeatable tool-free terminations
- > Colour coded stuffer-cap for easy cable lacing
- > Keyed stuffer-cap for reliable termination
- > Low insertion force 'clam action' assists tool free termination (LSA & 110 punch-down tools can also be used to effect termination)
- > Integral cable strain relief
- > Durability: Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- Fits all keystone style face plates and floor boxes
- Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

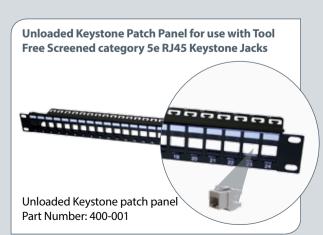
Each category 5e modular RJ45 keystone jacks complies with IEC 60603-7-Pt 3 (screened) and support all applications designed for class D networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### **Applications**

- > Class D/category 5e standards compliant
- > Terminates 22AWG to 26AWG cables

#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



#### Ordering Information

DESCRIPTION	PART NUMBER
Screened Cat5e Tool Free keystone jack, White	501-101
Unloaded Keystone patch panel	400-001

#### **Optronics Copper Structured Cabling Solutions**

105

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | TOOL FREE UNSCREENED CAT5E RJ45 JACKS**



OptronicsPlus category 5e Tool Free RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The products have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that minimises the time required by the installer to complete each termination.

#### Features

- > Screened and unscreened versions available
- > Repeatable tool-free terminations
- > Colour coded stuffer-cap for easy cable lacing
- > Keyed stuffer-cap for reliable termination
- Low insertion force 'clam action' assists tool free termination (LSA & 110 punch-down tools can also be used to effect termination)
- > Integral cable strain relief
- > Colour coded wiring blocks for easy cable lacing
- > Durability:
  - Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Fits all keystone face plates and floor boxes
- > Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened Cat5e Tool Free keystone jack - Black	500-101
Unscreened Cat5e Tool Free keystone jack - White	500-102
Unloaded Keystone patch panel	400-001

Each category 5e Tool Free RJ45 keystone jack complies with IEC 60603-7-Pt 2 (unscreened) and support all applications designed for class D networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### Applications

- > Class D/category 5e standards compliant
- > Terminates 22AWG to 26AWG cables

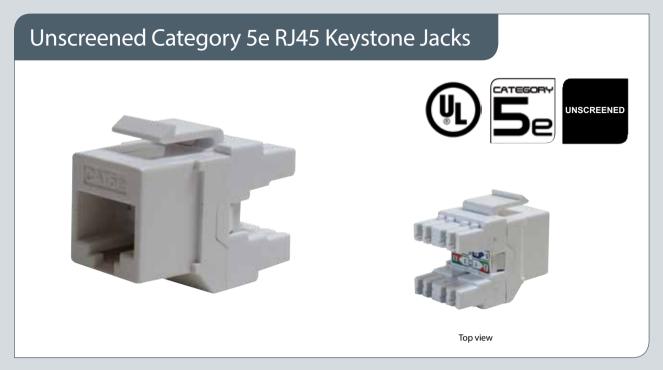
#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006



106

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT5E RJ45 KEYSTONE JACKS**



OptronicsPlus category 5e RJ45 keystone jacks exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The jacks have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that optimises the termination process through the use of a universal wiring block. Each category 5e

# RJ45 keystone jack complies with IEC 60603-7-Pt 2 (unscreened) and support all applications designed for class D networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1, and 1G FCBASE-T.

#### Features

- Universal wiring block accommodates both 110 and LSA tools
- Colour coded wiring blocks assist termination
   Durability:
- Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum
- > Fits all keystone style face plates and floor boxes
- > Suitable for modular patch panel installation
- > Part of the 25 year Optronics systems warranty programme

#### **Applications**

> Class D/category 5e standards compliant

#### Conformance

- > Electrically compliant beyond 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# Ordering Information

DESCRIPTION	PART NUMBER
Unscreened category 5e keystone jack - Black	500-103
Unscreened category 5e keystone jack - White	500-104
Unloaded Keystone patch panel	400-001

107

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | UNSCREENED CAT 5E LOW PROFILE MODULES**

#### **Unscreened Category 5e Low Profile Shuttered Modules**



OptronicsPlus category 5e low profile shuttered RJ45 modules exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. These modules have been designed for mechanical and electrical reliability, using quality materials, to deliver a jack solution that is optimised for shallow back boxes. Each category 5e low profile shuttered RJ45 module complies with IEC 60603-7-Pt 2 and support all applications designed for class D networks as defined within ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 including 1000BASE-T (Gigabit Ethernet), ATM-155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

#### Features

- > Euro-Mod and LJ6C versions
- > Integral shuttered facia
- > Integral label window
- > Universal, colour coded wiring block for easy termination
- > Integral cable strain relief
- > Durability:

Jack contacts: 750 plug insertion cycles minimum Wiring block: 25 termination cycles minimum

> Part of the 25 year Optronics systems warranty programme

#### **Applications**

> Class D/category 5e standards compliant

#### Conformance

- > Electrically compliant through 100MHz
- > Supports TIA 568 A & B wiring configurations
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

#### Ordering Information

DESCRIPTION	PART NUMBER
Unscreened LJ6C category 5e Low Profile Shuttered Module 38.5mm x 25mm White	500-301
Unscreened category 5e Low Profile Shuttered Module 50mm x 25mm White	500-401

#### www.optronicsnet.com

108

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | U/UTP CATEGORY 5E PATCH CORDS**



OptronicsPlus category 5e Unscreened patch cords exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The patch cords are designed for mechanical and electrical reliability, using quality materials and processes, to deliver a solution which provides a consistent high level of systems performance whilst incorporating design features that allow a "one style fits all" cord application. The low profile moulded boot and snag free latching allows the patch

#### Features

- > Electrically compliant beyond 100MHz
- > Low Smoke Zero Halogen sheathed cable / PVC sheathed cable
- Low profile moulded strain relief boot for use with blade servers
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 7 standard lengths (1m, 2m, 3m, 5m, 10m, 15m, & 20m)
- > Other lengths and colours available upon request\*
- > Individually bagged with traceability information
- Part of the 25 year Optronics systems warranty programme
   Subject to MOQ

#### Applications

> Class D/category 5e standards compliant

#### Conformance

- > RoHS compliant 2002/95/EC
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

cords to be deployed within even the most densely populated network installations, utilising the latest blade server technology. Each category 5e unscreened patch cord is manufactured and tested in accordance with IEC 61935-2 and comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class D/category 5e applications including 1000BASE-T (Gigabit Ethernet), ATM 155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

#### **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	24
Conductors	Size (mm)	7/0.20 +/- 0.008
	Material	Bare Copper
Insulators	Diameter (mm)	0.98+/-0.05
insulators	Material	Polyolefin
Jacket	External O.D.	6.0 +/- 0.20
	Thickness (mm)	0.5
	Material	PVC/LSZH

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | U/UTP CATEGORY 5E PATCH CORDS**

# U/UTP Category 5e Patch Cords

#### PVC

	PART NUMBER	METRE
	510-101	1
	510-102	2
>	510-103	3
GREY	510-105	5
	510-110	10
	510-115	15
	510-120	20
	510-201	1
	510-202	2
	510-203	3
E	510-205	5
	510-210	10
	510-215	15
	510-220	20
	510-301	1
	510-302	2
ш	510-303	3
BLUE	510-305	5
"	510-310	10
	510-315	15
	510-320	20

	PART NUMBER	METRE
	510-401	1
	510-402	2
	510-403	3
VELLOW	510-405	5
₹	510-410	10
	510-415	15
	510-520	20
	510-501	1
	510-502	2
z	510-503	3
GREEN	510-505	5
ש	510-510	10
	510-515	15
	510-520	20
	510-601	1
	510-602	2
*ш	510-603	3
WHITE*	510-605	5
3	510-610	10
	510-615	15
	510-620	20

	PART NUMBER	METRE
	510-701	1
	510-702	2
*	510-703	3
BLACK*	510-705	5
	510-710	10
	510-715	15
	510-720	20
	510-701	1
	510-702	2
۴,	510-703	3
ORANGE*	510-705	5
и Ко С	510-710	10
	510-715	15
	510-720	20

\*White, Orange and Black may be subject to minimum order quantities

# LSZH

	PART NUMBER	METRE
	520-101	1
	520-102	2
≻	520-103	3
GREY	520-105	5
6	520-110	10
	520-115	15
	520-120	20
	520-201	1
	520-202	2
	520-203	3
RED	520-205	5
	520-210	10
	520-215	15
	520-220	20
	520-301	1
	520-302	2
ш	520-303	3
BLUE	520-305	5
8	520-310	10
	520-315	15
	520-320	20

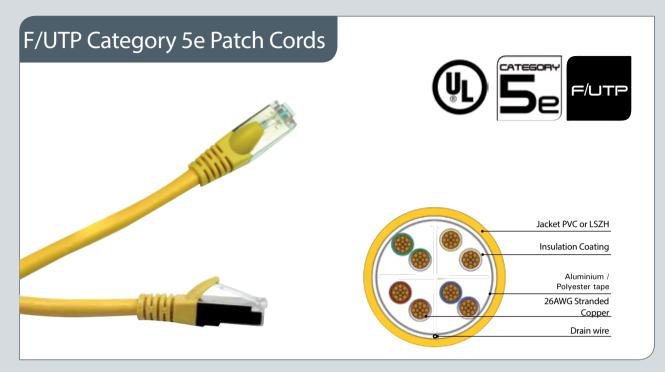
	PART NUMBER	METRE
	520-401	1
	520-402	2
Š	520-403	3
VELLOW	520-405	5
¥	520-410	10
	520-415	15
	520-420	20
	520-501	1
	520-502	2
z	520-503	3
GREEN	520-505	5
ש	520-510	10
	520-515	15
	520-520	20
	520-601	1
	520-602	2
т.	520-603	3
WHITE*	520-605	5
3	520-610	10
	520-615	15
	520-620	20

	PART NUMBER	METRE
	520-701	1
	520-702	2
*	520-703	3
<b>BLACK</b> *	520-705	5
B	520-710	10
	520-715	15
	520-720	20
	520-801	1
	520-802	2
<b>DRANGE</b> *	520-803	3
AN	520-805	5
OR	520-810	10
	520-815	15
	520-820	20

\*White, Orange and Black may be subject to minimum order quantities

110

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | F/UTP CATEGORY 5E PATCH CORDS**



OptronicsPlus category 5e Screened patch cords exceed the transmission line performance requirements of IEC and TIA for class D/category 5e systems. The patch cords are designed for mechanical and electrical reliability, using quality materials and processes, to deliver a solution which provides a consistent high level of systems performance whilst incorporating design features that allow a "one style fits all" cord application. The low profile moulded boot and snag free latching allows the patch

#### cords to be deployed within even the most densely populated network installations, utilising the latest blade server technology Each category 5e Screened patch cord is manufactured and tested in accordance with IEC 61935-2 and comply with the requirements of ISO/IEC 11801 (2<sup>nd</sup> Edition): 2010 and support all applications designed for class D/category 5e applications including 1000BASE-T (Gigabit Ethernet), ATM 155, 100BASE-Tx, Token Ring 100Mbs-1 and 1G FCBASE-T.

# **Technical Specifications**

CONSTRUCTION		VALUE
	AWG	26
Conductors	Size (mm)	0.915 +/- 0.00
	Material	Bare Copper
Insulators	Diameter (mm)	0.97+/-0.05
Insulators	Material	Polyolefin
	External O.D.	6.0 +/- 0.20
Jacket	Thickness (mm)	0.5
	Material	PVC/LSZH

#### Features

- > Electrically compliant beyond 100MHz
- > Low Smoke Zero Halogen sheathed cable / PVC sheathed cable
- > Low profile moulded strain relief boot for use with blade servers
- > Screened plug
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 7 standard lengths (1m, 2m, 3m, 5m, 10m, 15m, & 20m)
- > Other lengths and colours available upon request\*
- > Individually bagged with traceability information
- Part of the 25 year Optronics systems warranty programme \* Subject to MOQ

#### Applications

> Class D/category 5e standards compliant

#### Conformance

- > RoHS compliant 2002/95/EC
- > REACH / SvHC compliant regulation (EC) No. 1907/2006

# **OptronicsPlus Category 5e**

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | F/UTP CATEGORY 5E PATCH CORDS**

# F/UTP Category 5e Patch Cords

#### PVC

	PART NUMBER	METRE
	530-101	1
	530-102	2
≻	530-103	3
GREY	530-105	5
	530-110	10
	530-115	15
	530-120	20
	530-201	1
	530-202	2
	530-203	3
RED	530-205	5
	530-210	10
	530-215	15
	530-220	20
	530-301	1
	530-302	2
ш	530-303	3
BLUE	530-305	5
	530-310	10
	530-315	15
	530-320	20

	PART NUMBER	METRE
	530-401	1
	530-402	2
≷	530-403	3
VELLOW	530-405	5
₽	530-410	10
	530-415	15
	530-520	20
	530-501	1
	530-502	2
z	530-503	3
GREEN	530-505	5
ש	530-510	10
	530-515	15
	530-520	20
	530-601	1
	530-602	2
т.	530-603	3
WHITE*	530-605	5
3	530-610	10
	530-615	15
	530-620	20

	PART NUMBER	METRE
	530-701	1
	530-702	2
*	530-703	3
BLACK*	530-705	5
8	530-710	10
	530-715	15
	530-720	20
	530-801	1
	530-802	2
Щ Ц	530-803	3
ORANGE*	530-805	5
0 B N	530-810	10
	530-815	15
	530-820	20

\*White, Orange and Black may be subject to minimum order quantities

# LSZH

	PART NUMBER	METRE
	540-101	1
	540-102	2
>	540-103	3
GREY	540-105	5
<b>U</b>	540-110	10
	540-115	15
	540-120	20
	540-201	1
	540-202	2
	540-203	3
RED	540-205	5
	540-210	10
	540-215	15
	540-220	20
	540-301	1
	540-302	2
ш	540-303	3
BLUE	540-305	5
	540-310	10
	540-315	15
	540-320	20 /

	PART NUMBER	METRE
	540-401	1
	540-402	2
Ž	540-403	3
VELLOW	540-405	5
YE	540-410	10
	540-415	15
	540-420	20
	540-501	1
	540-502	2
z	540-503	3
GREEN	540-505	5
ש	540-510	10
	540-515	15
	540-520	20
	540-601	1
	540-602	2
ж.	540-603	3
WHITE*	540-605	5
Ī	540-610	10
	540-615	15
	540-620	20

	PART NUMBER	METRE
	540-701	1
	540-702	2
*	540-703	3
<b>BLACK</b> *	540-705	5
B	540-710	10
	540-715	15
	540-720	20
	540-801	1
	540-802	2
<b>DRANGE</b> *	540-803	3
Å	540-805	5
OR/	540-810	10
	540-815	15
	540-820	20

\*White, Orange and Black may be subject to minimum order quantities

**OptronicsPlus Copper Cabling System** 

# Faceplates & Accessories

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | FACEPLATE & ACCESSORIES**



UK style single gang bevelled faceplate. Suitable for

DESCRIPTION	PART NUMBER
Single Gang Faceplate Bevelled 1-2 port	100-007

UK style double gang bevelled faceplate. Suitable for

DESCRIPTION	PART NUMBER
Double Gang Faceplate Bevelled 1-4 port	100-008

UK style single gang flat faceplate. Suitable for installing 1

DESCRIPTION	PART NUMBER
Single Gang Faceplate Flat 1-2 port	100-001

UK style double gang flat faceplate. Suitable for installing

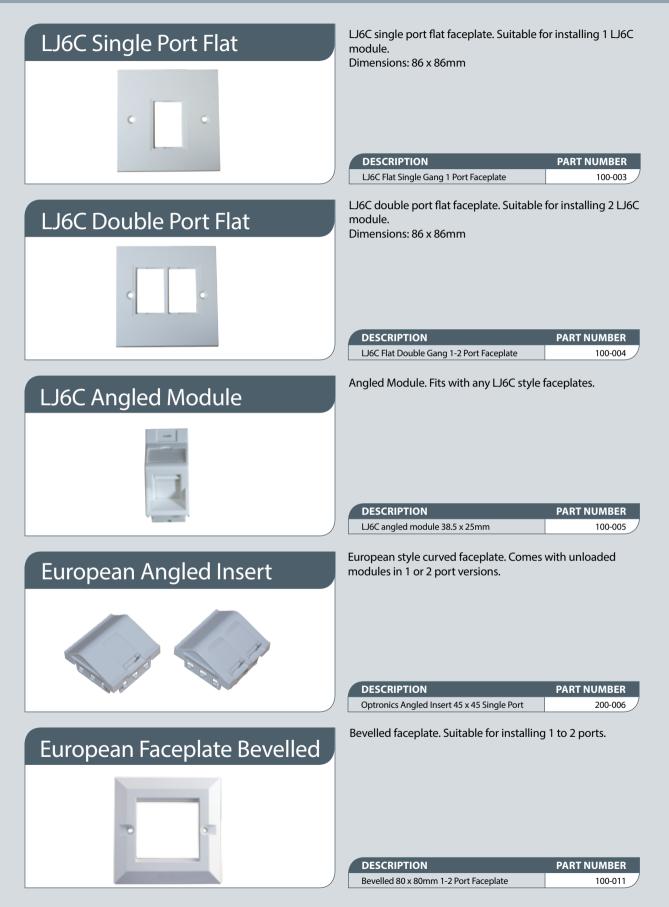
DESCRIPTION	PART NUMBER
Double Gang Faceplate Flat 1-4 port	100-002

Blanks & unloaded angled module. Fits with any UK style

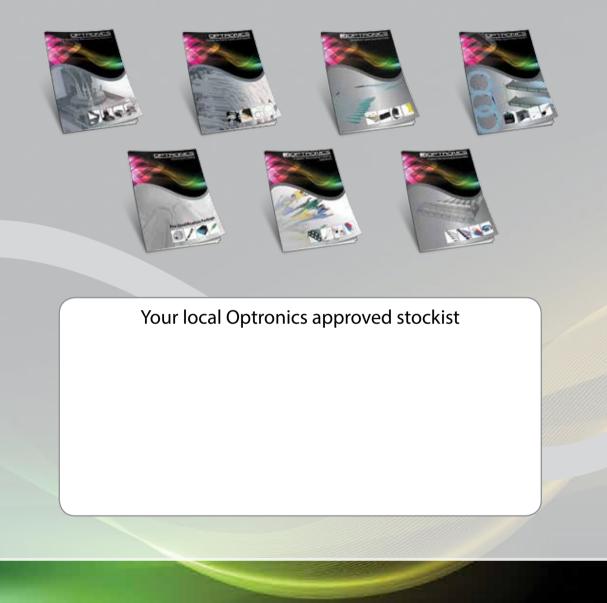
DESCRIPTION	PART NUMBER
50 x 25mm Blank	100-009
50 x 12.5mm Blank	100-010
50 x 25mm Angled module	100-006

114

#### **OPTRONICSPLUS COPPER CABLING SYSTEM | FACEPLATE & ACCESSORIES**



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