

OPTRONICS

Structured Cabling

Pre-Qualification Package



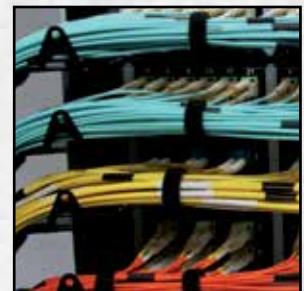
Optronics

Structured Cabling Solutions

Pre-Qualification Package

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About Us

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

Optronics, has over 20 years experience in the fibre optic manufacturing industry. The Optronics range includes patchcords, 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 from distributors all over the world.

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 panels in necessary quantity.



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 a registered company in England and has regional offices in each major continent in the world.



ABOUT OPTRONICS

A Sleeping Giant Awakes

For more than 15 years Optronics has been the vendor of choice for many recognised leaders in the optical connectivity field across all five continents - a truly global player!

At Optronics, we probably have the best engineering, design and manufacturing resource for optical connectivity solutions and enclosures in the world today. Our reputation for quality and reliability through new product development is underpinned with the knowledge that Optronics manufactured solutions are deployed at the heart of the world's telecommunications systems delivering Quality of Service levels which underpin the internet and ensure applications such as cloud computing are realised.

Whilst many within the industry recognise the strengths of Optronics, few end users or consultants within the structured cabling market even know the company exists.

"I feel we are under-selling ourselves in terms of brand value."
- John Grillo, Chairman

Having originally established the business to design and manufacture a range of passive optical connectivity for the data communications and telecommunications markets, our desire to service and support our customers has taken us far beyond this original 'simple' mission.

Today, the Optronics engineering team are "recognised industry experts" and frequently represent the interests of the UK in defining the latest national and international communications equipment standards.

From our headquarters in Milton Keynes, we not only offer our customers a 24 hour engineering and design capability through our extended teams in Asia but a leading logistics service to support our customers throughout the world using our regional centres.

John Grillo continues:

"Whilst we continue to win as a result of our abilities to work with and through our customers - this is not enough for Optronics! We are increasingly developing solutions for environments such as the Data Centre which need to be sold, not just supplied!"

To realise its full potential, Optronics has introduced the Optronics Cabling System which delivers a systemically designed high speed copper and optical network solution aimed at the most challenging environments.

The Optronics Cabling System has been developed to compete with the "best in class" solutions through engineers and marketers harnessing a wealth of acquired applications knowledge in the particular market space.

Clearly Optronics has no intention of turning its back on its current customer base but also believes it can offer our current and future customers an even greater service and experience if we were to adopt a parallel approach to the market that will ultimately release the full brand potential of the business.



“We deliver customer satisfaction and long term relationship through our various services at compelling price points”

Our Mission

Our professional team deploys the most advanced service solutions that provide insight into the needs and mission of the clients' infrastructure through our technical support team that prides itself on professional pre and post sales support, project management and technical training to fulfil the needs of its customers.

We continuously strive towards the provision of cost-effective Networking and Communication solutions using state-of-the art technologies and methodologies, in line with our customers' strategic direction

Our Promise

Pro-Active

Aid clients to secure new and existing customers through designing and manufacturing bespoke panels in necessary quantity.

Wide Range

Extensive range of high quality fibre management solutions.

Innovation Through Purpose

Specific proprietary designs are developed by our engineering department.

No Fuss

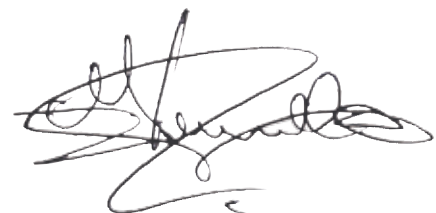
We can design, manufacture and deliver distribution boxes fully-loaded.

“Every accomplishment starts with the decision to try”

Quality Policy

We, the employees of Optronics, are committed to total customer satisfaction as our first and foremost priority because we understand that our customers are the only reason for our commercial existence. In order for us to achieve this objective, we understand that:

- > **Commitment to quality is an integral part of our everyday duties**
- > **Quality is achieved through the commitment and active participation of all of us**
- > **Quality is critical to our business success**



Koullis Azas – Senior Vice President
January 2012

Optronics UK - Milton Keynes



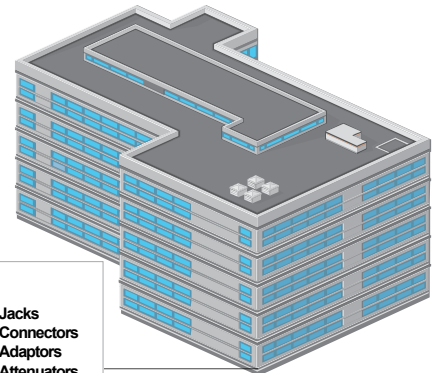
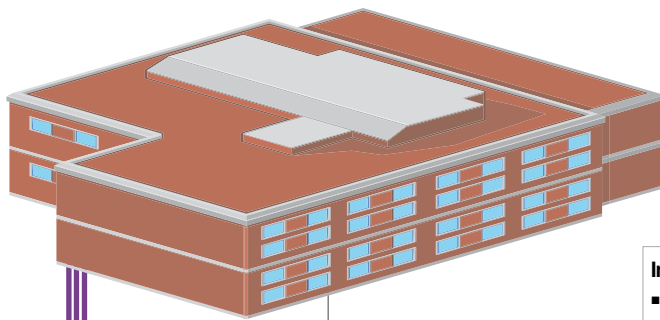
Optronics UK - Haverhill



Capability

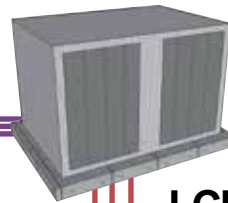
Central Office Building

Satellite Office



- Inventory:**
- Fibre Cabling (OM1/2, OM3, OM4, OS1, OS2)
 - Copper Cabling (UTP/FTP)
 - Fibre Pigtails
 - Fibre and Copper Patchcords
 - Fibre and Copper Cable Management
 - Jacks
 - Connectors
 - Adaptors
 - Attenuators
 - Splitters
 - CWDM
 - WDM
 - SFP

- Inventory:**
- Fibre Cabling (OM1/2, OM3, OM4, OS1, OS2)
 - Copper Cabling (UTP/FTP)
 - Fibre and Copper Pigtails
 - Fibre and Copper Patchcords
 - Fibre and Copper Cable Management
 - Jacks
 - Connectors
 - Adaptors
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 - WDM
 - SFP



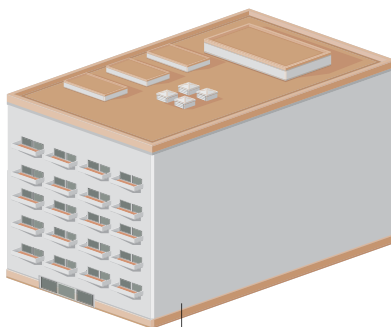
- Feeder Cable
- Drop Cable
- Drop Cable

- Inventory:**
- FDH
 - Adaptors
 - Splitters
 - Pigtails

LCP

Apartment Block

Residential



- Inventory:**
- Shuttered Adapters
 - Purelight Pigtails
 - Copper Patchcords
 - Connectors
 - Wall Boxes

- Inventory:**
- Shuttered Adapters
 - Jacks and Modules
 - Fibre Pigtails
 - Fibre and Copper Patchcords
 - Purelight Pigtails
 - CWDM
 - Fibre and Copper Cables
 - Cable Management

Customer Joint

- Inventory:**
- PLC Splitter
 - Pigtails
 - Patchcords
 - Adaptors

Standards

Specifications



Third Party Testing



Underwriters Laboratories



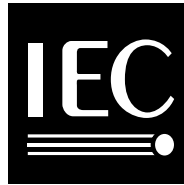
Intertek Group



Telcordia



American National Standards Institute



International Electrotechnical Commission



Engineering Technologies Association

Compliance and Accreditation



Restrictions of Hazardous Substances



International Standard of Organization

A Quality Company

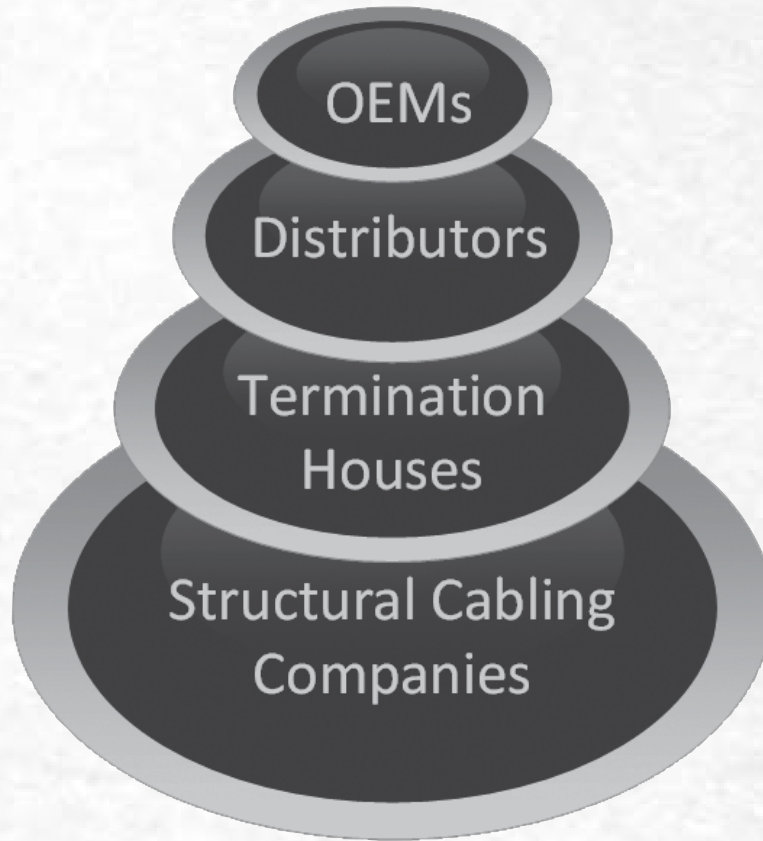
- > Optronics has an aggressive quality policy aiming to continuously improve products & processes
- > ISO 9001 certified (expected ISO 14000)
- > Over 95% on-time delivery and over 98% yield performance

Statement of Compliance

We are happy to provide our "Statement of Compliance" document on request. This documents our cable's compliance with the full range of IEC specification for fibre optic cable.



Our Customers Include



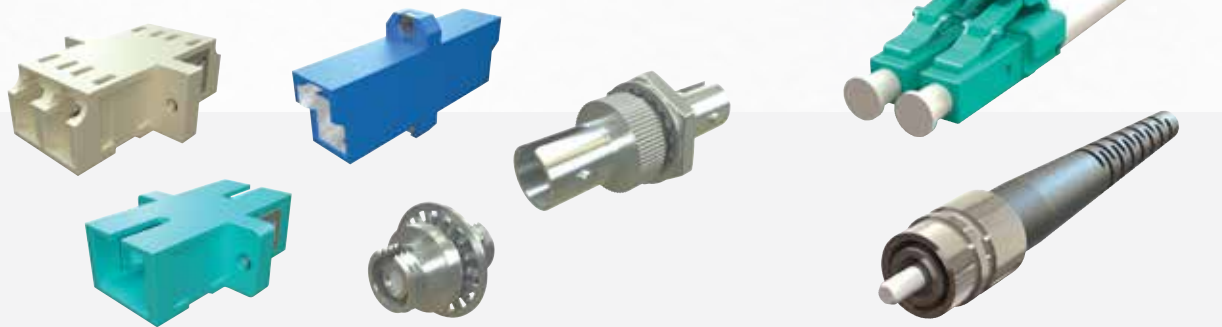
We Offer Our Customers

- [Choice]** Independent range, unmatched by any other company.
- [Variety]** Dedicated to variety and providing bespoke solutions, tailored to customers needs.
- [Uniqueness]** No one installation or application is the same as another.
- [Quality]** Aggressive quality control and testing policy for products and manufacturing.

Connectors and Adaptors

A full range of high quality connectors suitable for a wide range of applications.

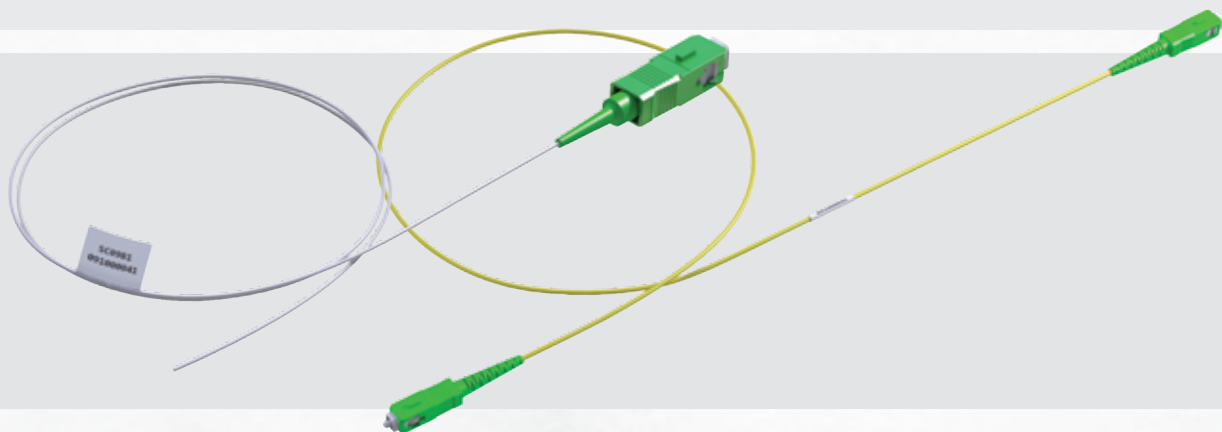
- > Complete range of connector types supported
- > Compliance with all major IEC and TIA specifications
- > Connectors feature Zirconia Ceramic Ferrules with high end PC and UPC finishing
- > Adaptors utilise high precision alignment sleeves
- > Low insertion loss and back reflection
- > RoHS , REACH & SvHC compliant
- > Field installable connectors available
- > Hybrid adaptors available
- > Suitable for LANS, WANS, Telecomms Networks, Distribution Networks, Testing and Laboratory applications



Patchcords and Pigtails

A full range of high quality patchcords and pigtails suitable for a wide range of applications.

- > Complete range of connector types supported
- > OM1/2, OM3, OM4, OS1, OS2, G.652D, G657A and G.657A/B
- > All standard lengths available in stock, non standard lengths by request
- > Compliance with all major IEC and TIA specifications
- > Patchcords are constructed with 2.8mm or 2mm zip cable
- > Low insertion loss and high return loss
- > Pigtails feature Easystrip cable
- > RoHS , REACH & SvHC compliant
- > Individual test sheet and unique product identification number for traceability
- > Our cable assemblies are designed and manufactured in our ISO9001 certified facilities



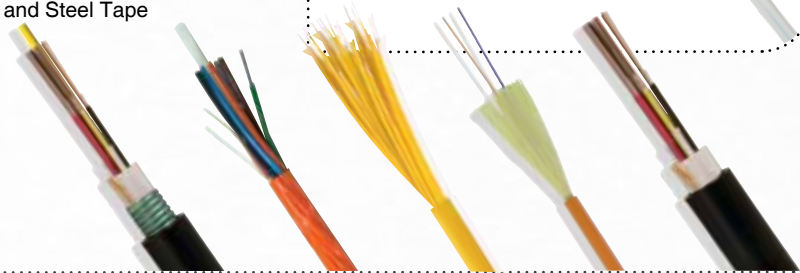
Fibre Optic Cables

A full range of high quality Fibre Optic Cables suitable for a wide range of applications.

- > Applications include Patchcords and Pigtails, LAN, Horizontal Distribution, Backbone, Riser, Rack to Rack links, Equipment rooms, Intrabuilding links, Campus and Long Distance WANs
- > OM1/2 (9/125), OM1 (62.5/125), OM2 (50/125), OM3 (50/125), OM4 (50/125) Specifications supported
- > Tight Buffered, Loose Tube, Breakout and Steel Tape Armoured constructions available
- > LSZH and PVC jacket types
- > 2 - 144 colour coded fibres
- > Cut to Length service
- > Project support available

Drop Cables

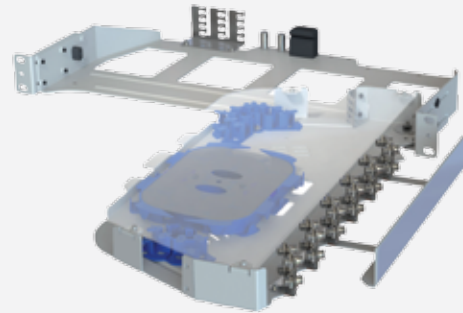
ITU-T G.652D, ITU-T G.657A1 & ITU-T G.657A2 all dielectric FTTH drop cable consisting of 1 to 4, 250µm individually coloured optical fibres with FRP strength members and LSZH jacket.



Internal Management

A full range of high quality internal cable management components suitable for a wide range of applications.

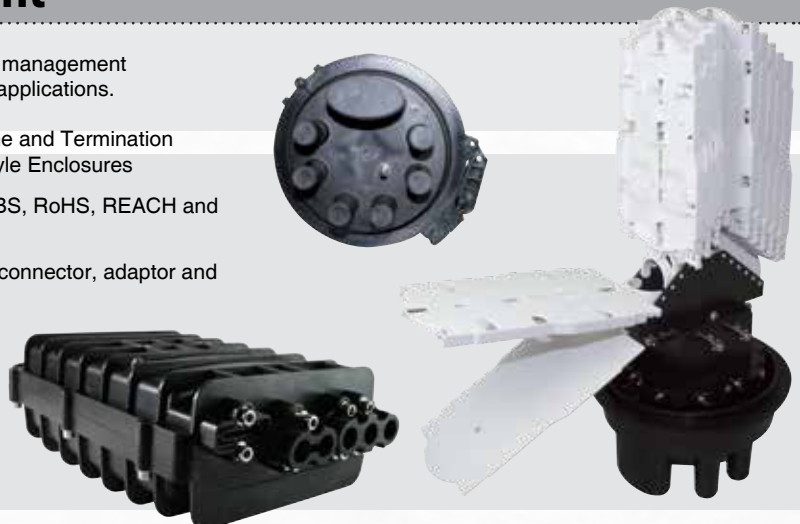
- > Range includes Fixed, Sliding and Modular Patch Panels, Tamperproof, Slimline and Lockable Wall Boxes, Plus, Wall and Floor Standing Cabinets
- > Full range of connectors and adaptors supported
- > In-house CAD design allows us to create innovative designs that fulfill the specific and unique challenges facing the installer
- > Manufactured to the highest quality with heavy guage metals and robust finishing
- > Project support and bespoke designs are available



External Management

A full range of high quality external cable management components suitable for a wide range of applications.

- > Range includes Tamper-Proof, Slimline and Termination Boxes, plus, Dome, Box and Inline Style Enclosures
- > Compliance with all relevant IP, IEC, BS, RoHS, REACH and SvHC specifications where applicable
- > All components accept a full range of connector, adaptor and cable types



Pre-Terminated Solutions

Four Innovative building blocks for multifibre assemblies

Micro Breakout Module



12
Fibres

- > Up to 12 fibres
- > Small 9mm Diameter
- > Plastic Bodied

Mini Breakout Module



24
Fibres

- > Up to 24 fibres
- > 15mm Diameter
- > Plastic Bodied

Maxi Breakout Module



48
Fibres

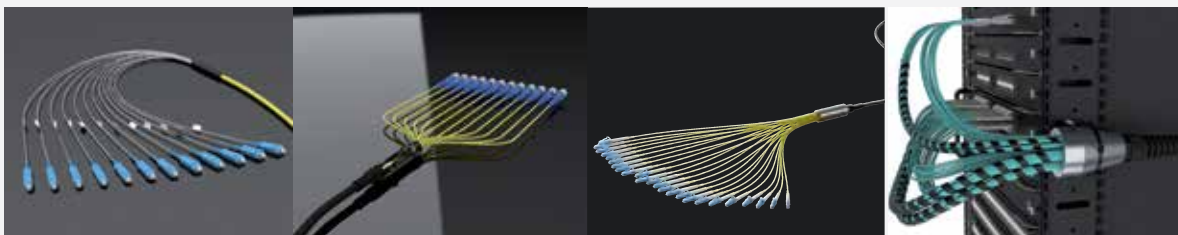
- > Up to 48 900µm fibres
- > Up to 24 2mm fibres
- > 21mm Diameter
- > Rugged Metal Body

Mega Breakout Module

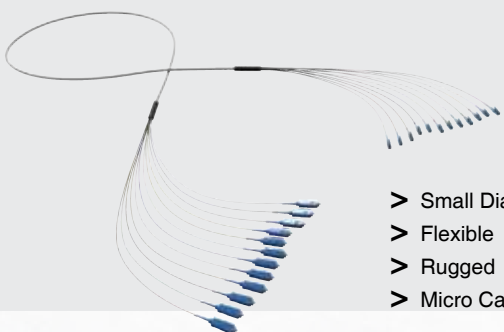


144
Fibres

- > Up to 144 fibres
- > 50mm Diameter
- > Rugged Metal Body

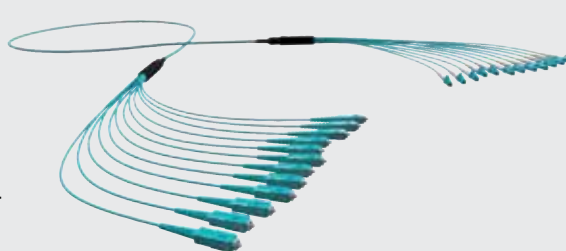


Firstlight Nano

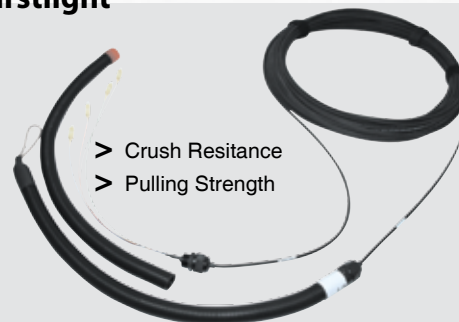


- > Small Diameter
- > Flexible
- > Rugged
- > Micro Cable

Firstlight Micro



Firstlight



- > Crush Resistance
- > Pulling Strength

Firstlight Prime



- > Up to 144 Fibres
- > Multi-Stage Breakout Options

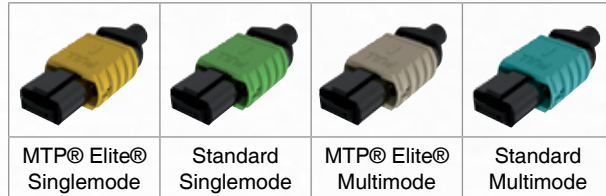
High Density Solution

Demand for greater processing power, efficient data centre design and high-speed internet access means choosing the right cabling infrastructure is essential.

The Optronics MTP solution provides a high density, high performance, robust, modular solution, for fast installation of enterprise data centre and other high fibre count cabling implementation.

Applications

- > Fibre channel - SAN
- > Parallel optics
- > Infiniband
- > Data Centre infrastructure
- > Optical backplane connections



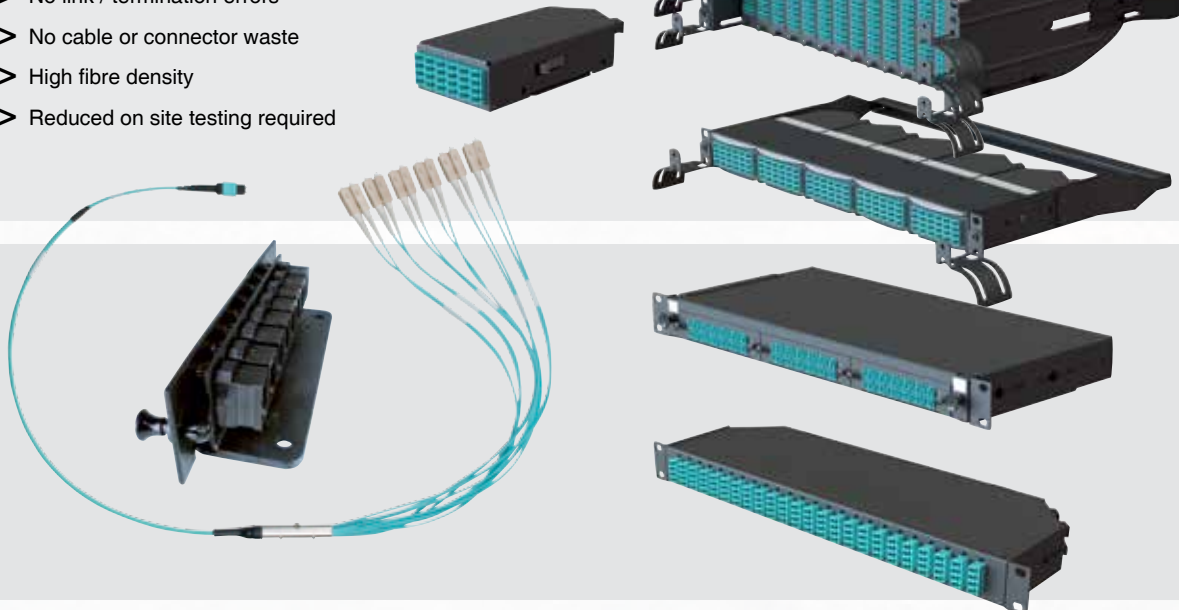
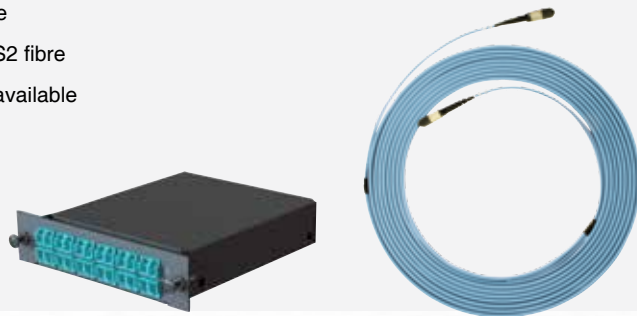
Features

- > Optical switch and routers
- > Emerging 40 and 100Gbs Ethernet
- > High density- from 4 up to 144 fibres in single cable
- > Available with OM1, OM2, OM3, OM4 and OS1/OS2 fibre
- > Compact LSZH cable standard, OFNP cable also available
- > Modular solutions
- > Low loss MTP Elite® versions
- > Wide range of configuration options



Benefits

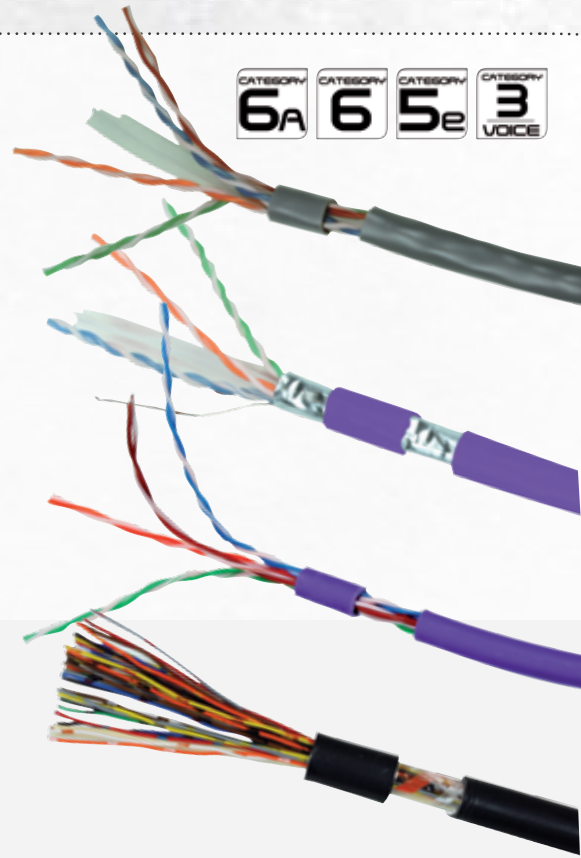
- > Tailored solutions to meet project specifications
- > Lower installation and ownership costs
- > Rapid installation
- > No link / termination errors
- > No cable or connector waste
- > High fibre density
- > Reduced on site testing required



Copper Cabling Solution

Cables

- > Available in CAT3, CAT5e, CAT6 and CAT6_A
- > U/UTP, F/UTP, U/FTP and S/FTP constructions
- > LSZH and PVC Jacket Types
- > All cables exceed the minimum specified performance for the relevant category and support all application classes defined in the relevant ISO/IEC/ASI/TIA specifications
- > Conform to RoHS, SvHC and REACH
- > ETL and UL listed where applicable



CATEGORY 6A CATEGORY 6 CATEGORY 5e CATEGORY 3 VOICE

Patch Panels

- > Available in CAT3, CAT5e, CAT6 and CAT6_A
- > 24 and 48 Port, 1U and 2, 19" rackable
- > All panels comply with the requirements of the relevant IEC specification and support all applications designed for the relevant Class / Category
- > Conform to RoHS, SvHC and REACH
- > Individual Port Identification
- > Universal wiring blocks for easy identification
- > ETL and UL listed where applicable



CATEGORY 6A CATEGORY 6 CATEGORY 5e CATEGORY 3 VOICE

Copper Cabling Solution

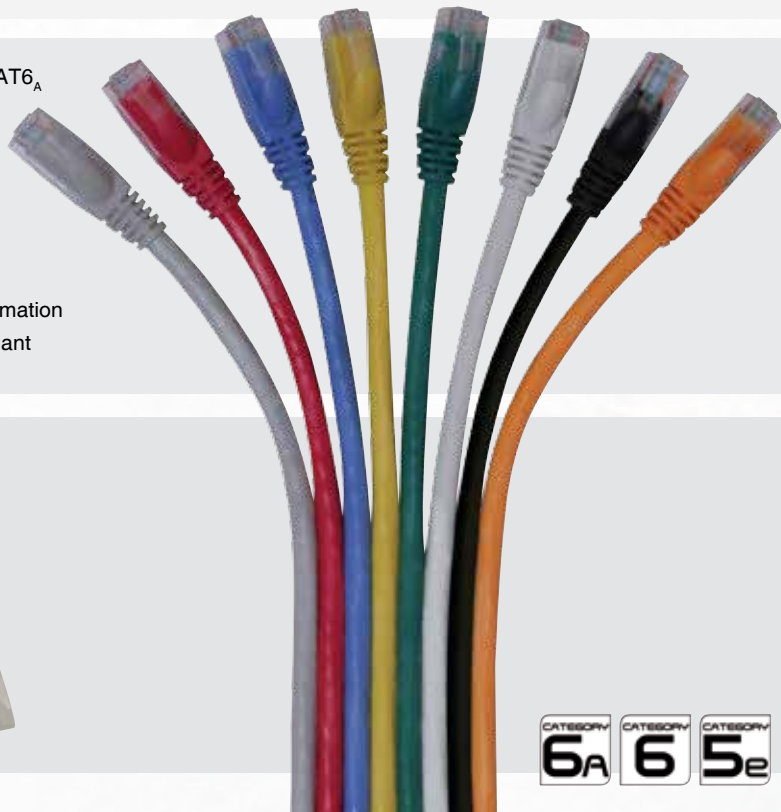
Jacks and Plastics

- > Available in CAT5e, CAT6 and CAT6_A
- > All jacks comply with the requirements of the relevant IEC specification and support all applications designed for the relevant Class / Category
- > Conform to RoHS, SvHC and REACH
- > Many styles including Tool Free, Keystone, Low Profile and Shuttered available in Screened and Unscreened construction
- > Universal colour coded wiring blocks for easy identification



Patchcords

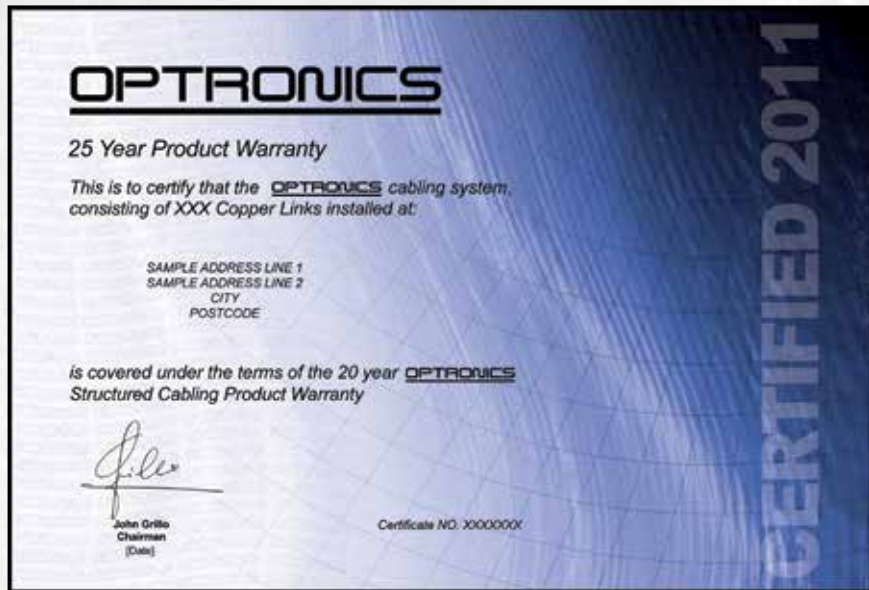
- > Available in CAT3, CAT5e, CAT6 and CAT6_A
- > Electrically compliant beyond 100MHz
- > LSZH or PVC sheathed cable
- > Low profile moulded strain relief boots
- > Integral anti-snag latch as standard
- > 8 standard colours
- > 1m, 2m, 3m, 5m, 10m, 15m, and 20m
- > Individually bagged with traceability information
- > All Class and Category standards compliant
- > RoHS, REACH, SVHC compliant



Optronics Warranty Programme

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 the components are installed and tested by an OPTRONICS approved partner then the installed link will support 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. Achieved 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 deliver the applications for which they were designed for a life-time.

Optronics Authorised Installer

All OptronicsPLUS guarantees require the installation to be carried out by an OptronicsPLUS Authorised Installer. These organizations are accredited only after successfully demonstrating a high level of capability, resources, technical expertise and investment in staff training and test equipment.

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
- > All Authorised Installer certification will be time-bound for a period of 2-years where upon a review will be undertaken and recertification issued at the sole discretion of Optronics



3P Certificates



Attestation of Conformity

**ISO/IEC, EN & TIA/EIA Unscreened
Class E / Category 6 Two Connector
Permanent Link**

**Optronics Ltd.
Davy Avenue
Milton Keynes MK5 8ND, UK**

Attestation of Conformity No. 108583

This type of Class E / Category 6 unscreened two connector permanent link has been tested by 3P Third Party Testing and complies with Class E Permanent link requirements of 2nd Edition ISO/IEC 11801 and CENELEC EN 50173-1:2007, and Category 6 permanent link requirements of ANSI/TIA/EIA-568-B.2-1. The Attestation of Conformity is valid for the actually tested permanent link samples in T388A designation and consisting of the following components:


<small>Cables from Optronics:</small>	<small>Horizontal Cable, Qualification Status:</small>	<small>P/N UTP6305LSZH Manufacturer Verified</small>
<small>Conn. Harde. from Optronics:</small>	<small>Keystone Jack, Patch panel for Keystone Jack, Qualification Status:</small>	<small>P/N CAT6JACK P/N PANEL24KEYSZONE Manufacturer Verified</small>
<small>Patch Cord from Optronics:</small>	<small>Patch Cord, Qualification Status:</small>	<small>P/N UTP6+PLC Manufacturer Verified</small>

Hoensholm, 10th November 2008

Ole Lambertsen
Test Responsible

Poul Villien
Coordinating Manager

Independent Testing - For End User Confidence



Attestation of Conformity

**ISO/IEC, EN & TIA/EIA Unscreened
Class E / Category 6
Two Connector Permanent Link**

**Optronics Ltd.
Davy Avenue
Milton Keynes MK5 8ND, UK**

Attestation of Conformity No. 110727

This type of Class E / Category 6 unscreened two connector permanent link has been tested by 3P Third Party Testing and complies with Class E permanent link requirements of 2nd Edition ISO/IEC 11801, amendment 2 to 2nd Edition ISO/IEC 11801, CENELEC EN 50173-1:2007 and amendment 2 to CENELEC EN 50173-1:2007 (draft 1998 July 2010), and Category 6 permanent link requirements of ANSI/TIA-568-C.2. The Attestation of Conformity is only valid for the actually tested permanent link samples in T388B configuration connected with RJ 45 plugs from Optronics patch cords, P/N UTP6GTX-SXXX, and consisting of the following Optronics components:

<small>Cable from Optronics:</small>	<small>Horizontal Cable, Qualification Status:</small>	<small>P/N UTP6R5XXX with PVC Sheath Manufacturer Verified</small>
<small>Conn. Harde. from Optronics:</small>	<small>Keystone Jack, Patch panel, Qualification Status:</small>	<small>P/N CAT6-JACK18UXY Testing PCB Marking LE000114 B2 P/N CAT6-UTP2PCB Testing PCB Marking CS REV.B Manufacturer Verified</small>

Hoensholm, 17th December 2010

Ole Lambertsen
Test Responsible

Poul Villien
Coordinating Manager

Independent Testing - For End User Confidence

Independent Testing - For End User Confidence



ELECTRICAL TRANSMISSION PERFORMANCE TESTING OF OPTRONIC UNSCREENED CLASS E / CATEGORY 6 TWO CONNECTOR PERMANENT LINK ACCORDING TO REQUIREMENTS OF 2ND EDITION ISO/IEC 11801, CENELEC EN 50173-1:2007 AND ANSI/TIA/EIA-568-B.2-1

Unscreened Cables and Connecting Hardware from Optronics Limited:

Horizontal Cables, P/N UTP6305LSZH
Wall Outlet with Unscreened Keystone Jack, P/N CAT6JACKBK5
Patch Panels with Unscreened Keystone Jack, P/N CAT6JACKBK5
RJ 45 Plug from Patch Cord, P/N UTP6+BL2-C

Prepared by Morten Dam

Project No. 1081976 2008.11.10

CERTIFICATION

ETL Certificates





Intertek

3933 US Route 11
Corland, New York 13045 USA
Phone Number: (800) 345-3851
Fax Number: (807) 758-6637
Web: www.intertek.com

ETL Verified Certificate of Conformance Number: 100085133CRT-001f

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

<p>Applicant: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>
--	---

<p>Contact: Mr. Neil Payne</p>	<p>Contact: Mr. Neil Payne</p>
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Verification/Report Number: 3104631CRT-003

Product Tested: 4 pair, 24 AWG, UTP, ESOH, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: UUTP CAT5E 4P LS2H 568B

Standard(s)/Specification: ANSI/TIA-568-C-2 Category 5e with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ANSI/TIA-568-C-2 Category 5e

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

Date Verified: 4/5/2010

Approved By:  **Kathy Heath, Program Coordinator**  **Antoinette Pelletier, Engineer**

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

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

This Verification is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of the Verification. Only the Client is authorized to copy or distribute this verification. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this verification are relevant only to the sample tested. This verification by itself does not imply that the material, product or service is or has ever been under an Intertek certification program.





Intertek

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Fax Number: (807) 758-6637
Web: www.intertek.com

ETL Verified Certificate of Conformance Number: 100085133CRT-001e

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

<p>Applicant: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>
--	---

<p>Contact: Mr. Neil Payne</p>	<p>Contact: Mr. Neil Payne</p>
--------------------------------	--------------------------------

Verification/Report Number: 3104631CRT-004

Product Tested: 4 pair, 24 AWG, UTP, ESOH, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: UUTP CAT5E 4P LS2H 11801

Standard(s)/Specification: ISO/IEC 11801 Category 5e with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ISO/IEC 11801 Category 5e

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

Date Verified: 4/5/2010

Approved By:  **Kathy Heath, Program Coordinator**  **Antoinette Pelletier, Engineer**

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

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

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ETL Verified Certificate of Conformance Number: 100085133CRT-001g

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

<p>Applicant: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>
--	---

<p>Contact: Mr. Neil Payne</p>	<p>Contact: Mr. Neil Payne</p>
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Verification/Report Number: 3154387CRT-004

Product Tested: 4 pair, 23 AWG, UTP, CMR, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: UUTP CAT6 4P PVC 11801

Standard(s)/Specification: ISO/IEC 11801 Category 6 with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ISO/IEC 11801 Category 6

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

Date Verified: 4/5/2010

Approved By:  **Kathy Heath, Program Coordinator**  **Antoinette Pelletier, Engineer**

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

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ETL Verified Certificate of Conformance Number: 100085133CRT-001d

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

<p>Applicant: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Devy Avenue, Knowhill Milton Keynes MK5 8ND, United Kingdom</p>
--	---

<p>Contact: Mr. Neil Payne</p>	<p>Contact: Mr. Neil Payne</p>
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Verification/Report Number: 3154387CRT-006

Product Tested: 4 pair, 24 AWG, UTP, CMR, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: UUTP CAT5E 4P PVD 11801

Standard(s)/Specification: ISO/IEC 11801 Category 5e with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ISO/IEC 11801 Category 5e

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

Date Verified: 4/5/2010

Approved By:  **Kathy Heath, Program Coordinator**  **Antoinette Pelletier, Engineer**

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

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ETL Verified Certificate of Conformance Number: 100085133CRT-001c

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

<p>Applicant: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>
--	---

Contact: Mr. Neil Payne	Contact: Mr. Neil Payne
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Verification/Report Number: 3104580CRT-005

Product Tested: 4 par. 23 AWG, UTP, LSOH, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: U/UTP CAT6 4P LSZH 11801

Standard(s)/Specification: ISO/IEC 11801 Category 6 with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ISO/IEC 11801 Category 6

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

Date Verified: 4/5/2010

Approved By:  
 Kathy Heath, Program Coordinator Antone Pelletier, Engineer

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

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ETL Verified Certificate of Conformance Number: 100085133CRT-001b

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

<p>Applicant: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>
--	---

Contact: Mr. Neil Payne	Contact: Mr. Neil Payne
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Verification/Report Number: 3154387CRT-007

Product Tested: 4 par. 24 AWG, UTP, CMR, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: U/UTP CAT5E 4P PVC 568B

Standard(s)/Specification: ANSI/TIA-568-C-2 Category 5e with the applicable electrical transmission characteristics

Jacket marking shall include: ETL Verified to ANSI/TIA-568-C-2 Category 5e

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

Date Verified: 4/5/2010

Approved By:  
 Kathy Heath, Program Coordinator Antone Pelletier, Engineer

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

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ETL Verified Certificate of Conformance Number: 100085133CRT-001a

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

<p>Applicant: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>	<p>Manufacturer: Optronics Limited Davy Avenue, Knowhill Milton Keynes, MK5 8ND, United Kingdom</p>
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Contact: Mr. Neil Payne	Contact: Mr. Neil Payne
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Verification/Report Number: 3154387CRT-003

Product Tested: 4 par. 23 AWG, UTP, CMR, Non-Plenum Riser, Horizontal (solid) Cable

Model(s) and/or Brand Name: U/UTP CAT6 4P PVC 568B

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

Jacket marking shall include: ETL Verified to ANSI/TIA-568-C-2 Category 6

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

Date Verified: 4/5/2010

Approved By:  
 Kathy Heath, Program Coordinator Antone Pelletier, Engineer

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

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08/12/2011 DUXR E315230 - Communications-circuit Accessories

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Communications-circuit Accessories

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Communications-circuit Accessories

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OPTRONICS LTD E315230
 DAVY AVE, KNOWLHILL
 MILTON KEYNES
 BUCKS, MK5 8ND UNITED KINGDOM

Keystone jacks, Model(s) CAT5E+FACEMODULE, CAT5E+JACK180BK, CAT5E+JACK180BKS, CAT5E+JACK180STP, CAT5E+JACK180WH, CAT5E+JACK180WHS, CAT5E+JACKTJ, CAT6+FACEMODULE, CAT6+JACK180BK, CAT6+JACK180BKS, CAT6+JACK180STP, CAT6+JACK180WH, CAT6+JACK180WHS, CAT6+JACKTJ, CAT6+UTPJACK

Telecommunication line cords, Model(s) FTP5EXXX-PVC, FTP6EXXX-PVC, UTP5EXXX-PVC, UTP6EXXX-PVC

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OPTRONICS LTD E315230
 DAVY AVE, KNOWLHILL
 MILTON KEYNES
 BUCKS, MK5 8ND UNITED KINGDOM

Patch panels, Model(s) CAT3+LSA25, CAT3+LSA50, CAT5E+STP24, CAT5E+UTP24, CAT5E+UTP24RA, CAT5E+UTP48, CAT6+STP24, CAT6+UTP24PCB, CAT6+UTP24RA, CAT6+UTP48PCB

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Senora Gas

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Jordan Royal Court
 Jordan Electric Power Company (JEPCO)
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Malta

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 Melita Telecom – Malta

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 Jones Lang Lasalle
 Majestic Towers - Sharjah Corniche
 National Bank Of Abu Dhabi Itihad Rd. Branch - Dubai
 Orascom Constructions - Dubai
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 Rak Bank

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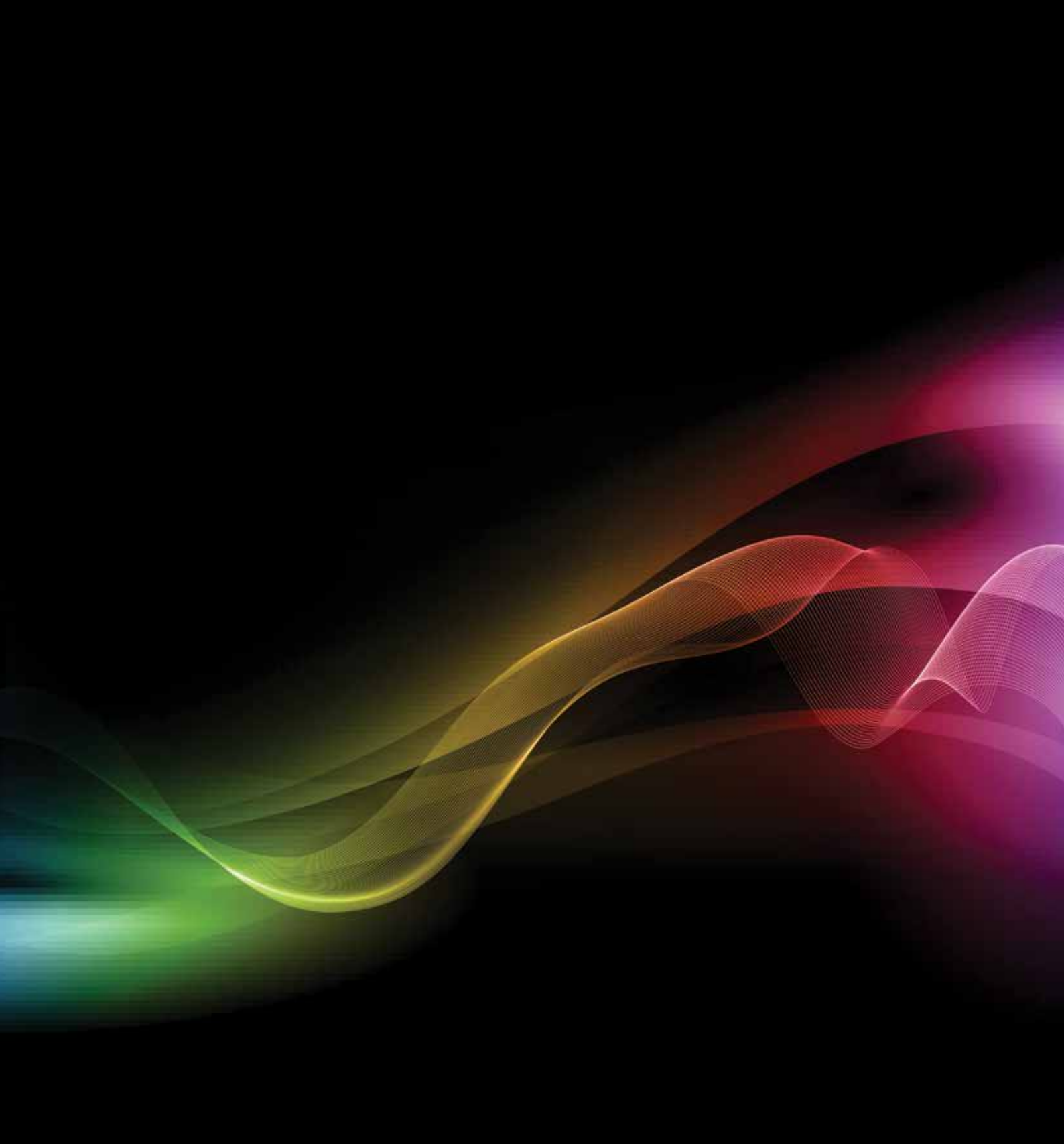
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