



EVERYTHING 
Connect. Control. Converge.

Berk-Tek[®]
A NEXANS COMPANY
www.berktek.com

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Berk-Tek is the premier source for network infrastructure solutions. For more than 50 years, we have led the industry in the development of high-performance fiber optic and copper cables designed to transport high-speed data, voice and power transmissions. Our world-class research and development teams are dedicated to developing innovative structured cabling solutions that are critically important to managing the demands of today's emerging technologies. Our mission is to provide our customers with the solutions that meet both the current and future network needs, while continuously striving to maximize their return on investment.

Our mission is to help you be successful...period.

Customer Focused

Our mission is to help our customers be successful: to provide the information and resources you need to make the best choice for your current and future network needs. All our efforts—from research and development, through manufacturing, sales and support—are rooted in developing unique solutions to challenges that our customers face.

Uncompromising performance is our standard.

Technology Leadership

Berk-Tek has long been a recognized leader in the development, study and testing of network infrastructure technologies.

The TEK Center at Berk-Tek

The TEK Center, located in New Holland, PA, is a Data Center and Enterprise Showcase, as well as a world-class research and development laboratory staffed with highly-trained engineers dedicated to developing innovative structured cabling solutions.



Unmatched Customer Support

Our expert team of engineers, product managers and sales professionals provides unparalleled technical support and service.

Global R&D Network

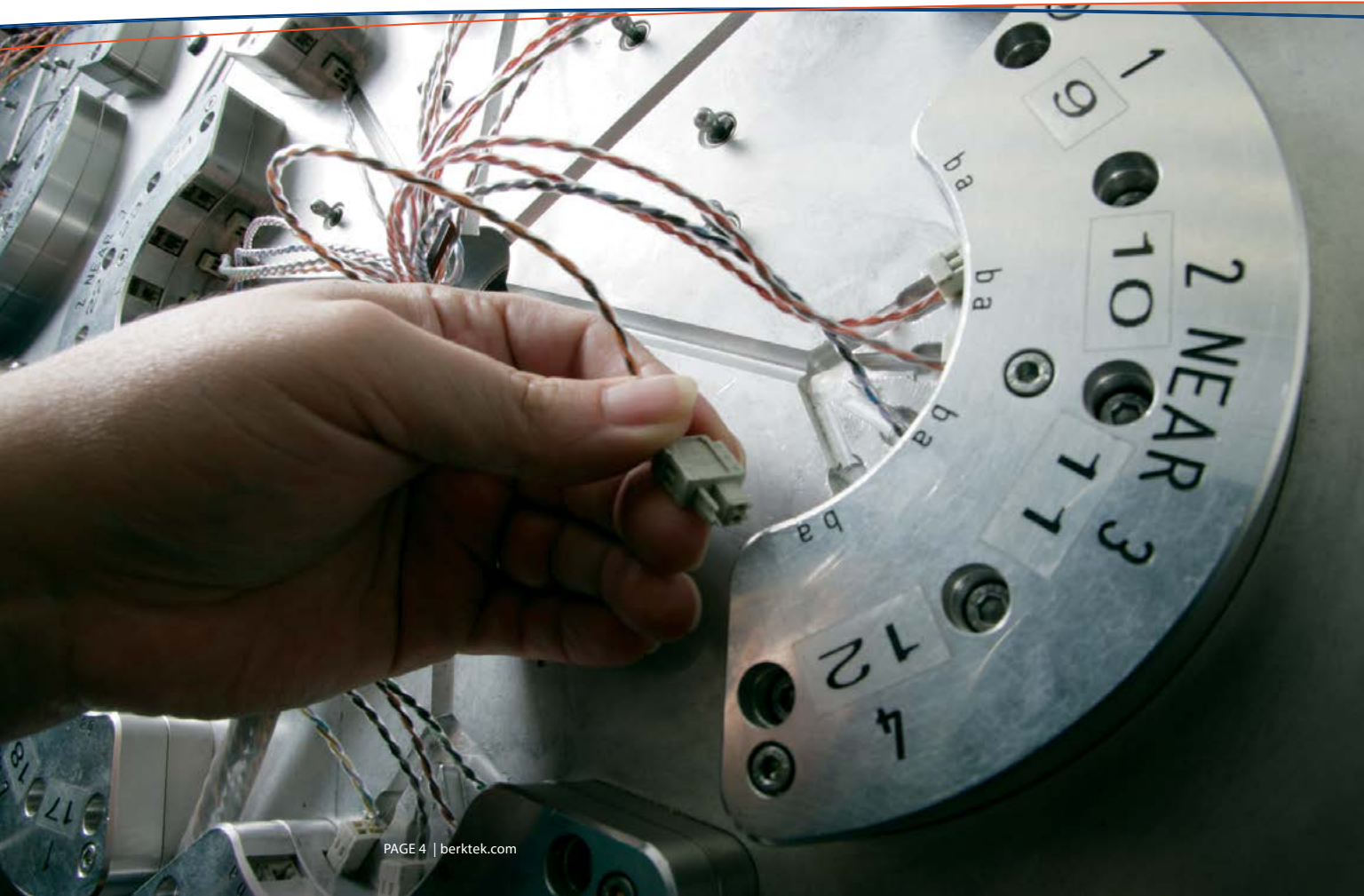
Working with Berk-Tek gives you access to the resources of the entire Nexans global organization, which means access to the collective expertise and reach of an organization focused on leading the development of innovative cabling technology worldwide.

Guiding the Standards

Berk-Tek actively participates in multiple industry standards initiatives. Our engineers help guide the standards that govern our industry, supporting the initiatives that best serve our customers.



Protect your network traffic from noise and heat in the real world with performance-leading cables. Only from Berk-Tek.



Uncompromising performance is no accident.

Our state-of-the-art manufacturing facility boasts world-class research and development laboratories dedicated to engineering superior copper solutions that meet the demands of today's emerging technologies, and enable the performance of your network infrastructure for years to come.

From research and engineering to manufacturing and support, our expert team understands that the measure of true performance is calculated under the stress of today's real-world applications and that value extends beyond marginal guarantees and standard specifications. Our stringent testing protocols and independently verified performance means our products deliver quality you can trust, now and in the future.

We can guarantee superior product performance because we back it with value-added engineering, manufacturing and testing, including:

- Inline data collection for drawing and extrusion.
- Computerized on-time delivery schedule through machine reporting on each component of the manufacturing process.
- Online monitoring of eccentricity, capacitance, diameter and concentricity parameters.
- Production comparison of each process and each parameter to determine the best process flow from batch to batch.
- Primary line batching for more efficient production management.
- Inline jacketing for production consistency.
- Automated box packaging eliminates human error and provides smooth payout.
- Automated labeling and data collection information for complete manufacturing traceability.

Performing to ISO 9001:2008 certification standards helps to drive continuous improvement, consistent quality and on-time delivery.

ISO 9001:2008

BUREAU VERITAS
Certification



Berk-Tek's commitment to manufacturing excellence and leadership is driven and evidenced by our many continuous improvement programs, including an automated shop floor data acquisition system capable of tracking more than 100 different quality parameters and the cultivation of internal Six Sigma Quality Experts.

Berk-Tek is a proud US manufacturer committed to maintaining US jobs and meeting the needs of our domestic customers. But the story doesn't end there. When you work with Berk-Tek, you get the expertise and resources of Nexans, the global expert in cabling systems with a presence in 30 countries and 21,000 employees worldwide.



Performing to ISO 9001 certification standards helps to drive continuous improvement, consistent quality and on-time delivery.

EPDs and HPDs are third-party verified and registered documents that validate the life-cycle environmental and health impact of products. They also help customers reach sustainable building objectives and obtain points towards LEED certification.

Berk-Tek has published its environmental declarations through the PEP ecopassport® program, which is an industry-wide recognized non-profit program that provides declarations specifically for the electrical and electronics industries. PEPs are product-specific EPDs, so they are valued as one full product towards LEED credit achievement.



Berk-Tek's HPDs are developed with the Health Product Declaration® Open Standard to accurately disclose their content and health information in compliance with the LEED program. Use of Berk-Tek's copper cabling on a project can count up to two points toward LEED credits.

RoHS: All products in this catalog manufactured in our New Holland and Fuquay-Varina facilities meet the European Union's Restriction of Hazardous Substances (RoHS) requirements. They are also compliant with California's Proposition 59.

Additionally, Berk-Tek is continuously working to limit the impact of our manufacturing processes and product components on the environment. Waste reduction, reduced water consumption, and energy-efficient lighting are just a few examples of how Berk-Tek works to steward the environment.

Recycling: Wherever possible, we have transitioned from wooden reels to recyclable reels made from 100% recyclable materials, and instituted an internal recycling program for all office paper and cardboard.

Raw Water: Berk-Tek uses a water reclamation system during manufacturing, preventing approximately 200,000 gallons of contaminated water from entering our local rivers and lakes.

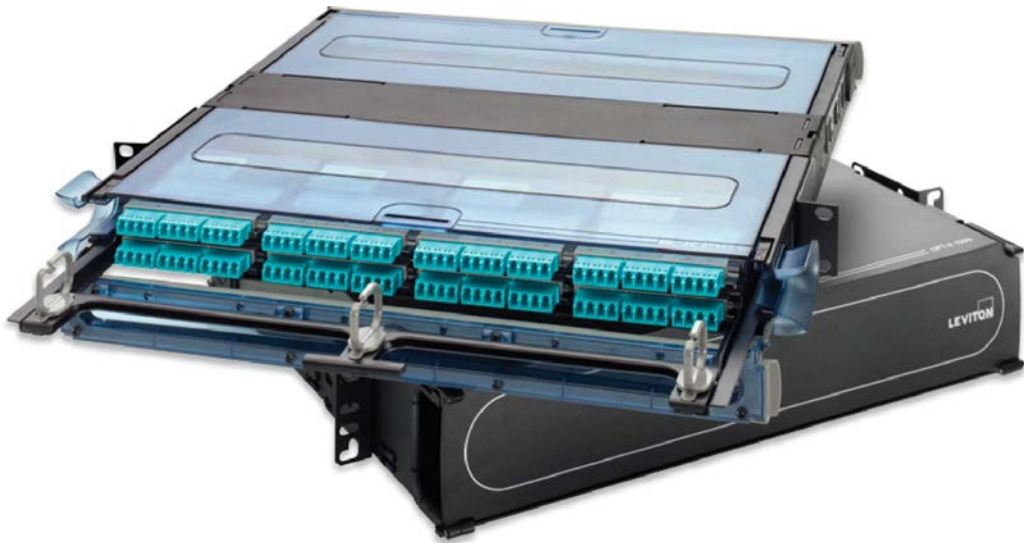
Energy Efficient Lighting: These systems have reduced our total energy demand by 10%, reducing our carbon dioxide emissions by an amount equal to saving 367 acres of forest or removing 233 cars from the road each year.

PEPs are product-specific EPDs and are valued as one full product towards LEED credit achievement.

Build the best network with Berk-Tek Leviton Technologies.

We know that you have an obligation to your customers: to build the best-performing network infrastructure as cost-effectively as possible.

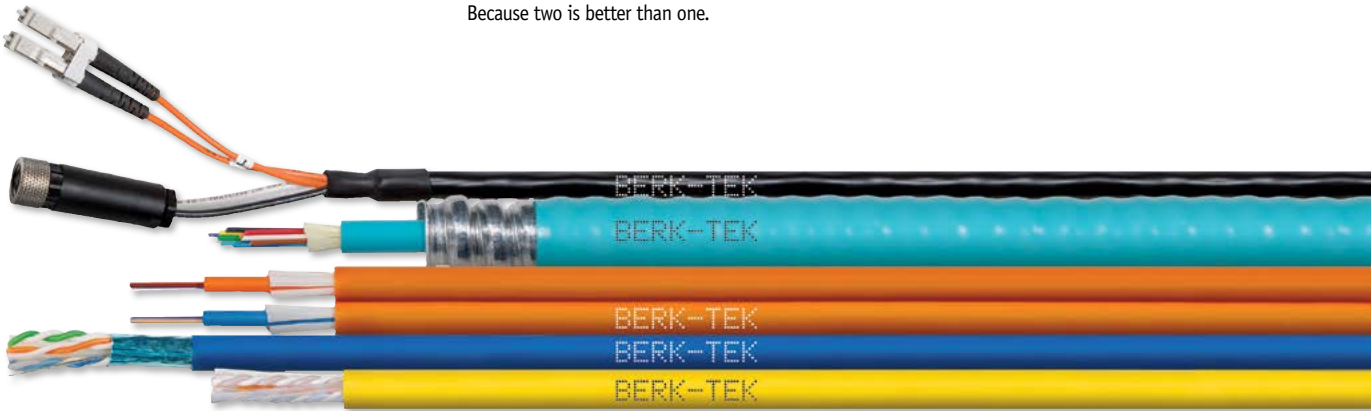
Choosing to install a Berk-Tek Leviton Technologies system means you are choosing the strongest LAN and data center solutions in the industry. This alliance between two of the best brands in network infrastructure delivers performance beyond the standards and a limited lifetime product and performance warranty on every system installed by an OASIS Certified Integrator or Leviton Certified Contractor.

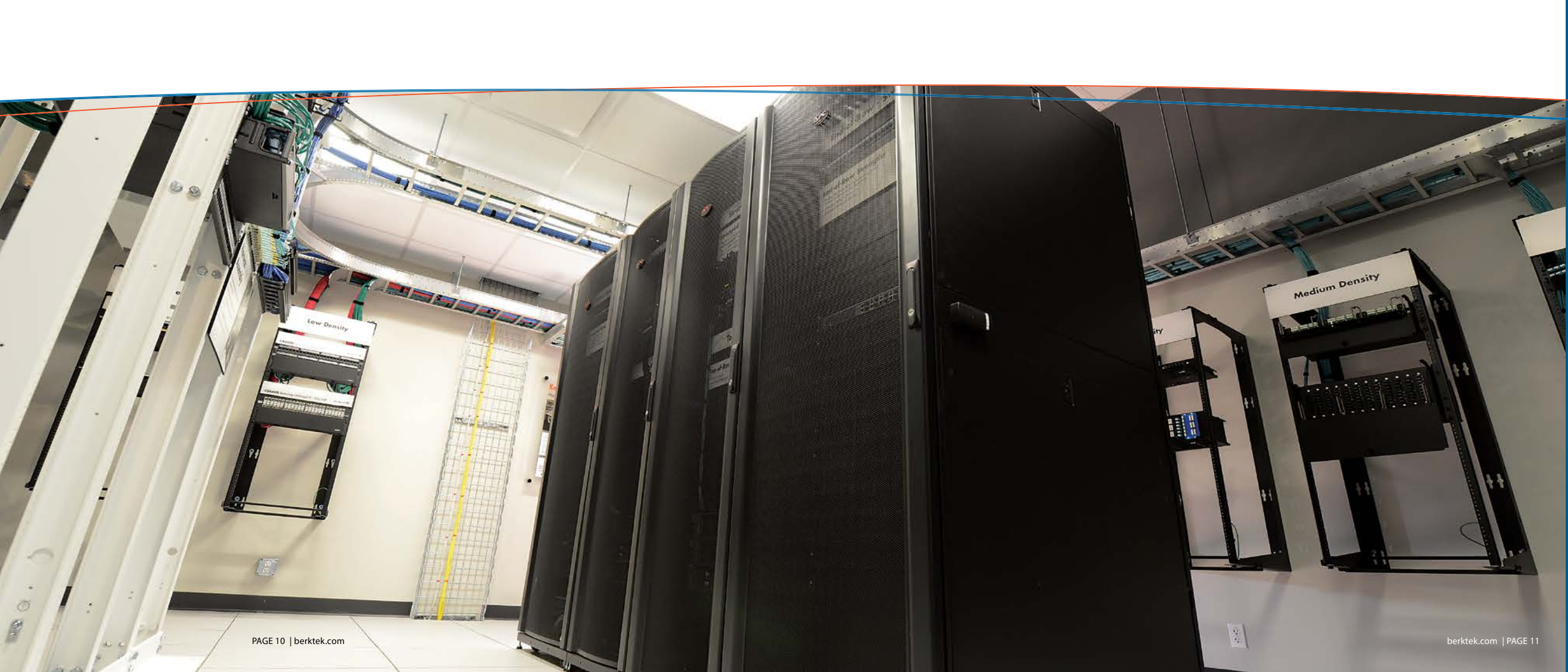


A complete portfolio of copper and fiber optic solutions, the Berk-Tek Leviton Technologies systems combine the premier cable and connectivity products of each technology expert to provide unparalleled quality and reliability. With numerous patents and industry-firsts, Berk-Tek and Leviton products deliver unique benefits designed to support the technology needs of today and tomorrow.

Custom and made-to-order configurations designed and manufactured in the United States mean some of the fastest turnaround times in the industry without sacrificing precise fit or product quality. Top all that off with integrated teams to provide design, specifying, troubleshooting and training to assist with whatever questions arise, and it becomes clear why those that want the best networks choose Berk-Tek Leviton Technologies.

Because two is better than one.





The TEK Center

The TEK Center at Berk-Tek is a world-class research and development facility, staffed with experienced engineers whose sole focus is to develop innovative structured cabling solutions. In addition to innovation and R&D, the TEK Center provides Berk-Tek customers with insight on how to solve network challenges by allowing you to experience the latest technology, learn about emerging applications and work with world-class research and development engineers on issues specific to your applications.





The TEK Center: Berk-Tek's world-class R&D facility.

A premier showcase for emerging applications

At Berk-Tek, our first priority is to help our customers maximize their success. We know that selecting the right network infrastructure is a critically important decision. And in this fast-changing industry, making the right decision now can pay big dividends later. That's why the TEK Center also functions as a showcase for emerging applications and unique network issues. Here, you can evaluate options firsthand and work with Berk-Tek engineers to spec a cost-effective system that will pay big dividends for years to come.

Data Centers: In the data center showcase, our TEK Center specialists can address your design challenges and recommend flexible, high-density solutions. You'll have the opportunity to touch, feel and experience different infrastructures and topologies. We can customize the display to help you determine which option best fits your needs. You'll also be able to see different migration paths and how to get the greatest density for your dollar.

Enterprise: The enterprise showcase includes examples of various environments including indoor, outdoor, security, office, campus and more. The demonstrations use Berk-Tek solutions in real-world applications to demonstrate where maximum performance for voice, data and power make a big difference in network performance. You'll be able to hear the difference in quality using VoIP and see the difference in video applications when utilizing different grades of cabling. And of course, we can customize the display to help you determine which option best fits your needs.



The TEK Center provides insight on how to solve your network challenges by allowing you to experience the latest technology, learn about emerging applications and witness world-class research and development.

Technology expertise: The help you need. When you need it.

Leading-edge R&D

Over the years, Berk-Tek has originated some of the true breakthroughs in structured cabling. That work continues in the TEK Center every day, as do the innovations, that shape the future of our industry. Our R&D operations are divided into two core labs: the Applications Lab and the Materials Lab.

Applications Lab: We put our cables through rigorous testing of real world applications, in real world environments, to make sure they perform as designed.

Materials Lab: The Berk-Tek engineers in the Materials Lab formulate and develop innovative materials and processing techniques for Berk-Tek's high performing cables. Berk-Tek develops our own materials, ensuring that our solutions best protect your network traffic from the heat of PoE like only we can.

Standards Leadership

We also have a Standards and Technology group that participates in various industry standard initiatives. They know the latest developments within the standards, and they are ready to help you as you plan your next project.

TEK Support

Our TEK Support gives Berk-Tek customers access to expert support services before, during and after installation. Our dedicated team of engineers and applications specialists takes an average of 175 phone calls per month, responding to questions ranging from product specifications to installation practices to “future-proofing.” We also provide onsite field support by Berk-Tek engineers, product managers and technical support experts — available to you to help maximize your success.

Contact us at 1-800-BERK-TEK.



A Seal of Excellence: TEK Center Certification

The TEK Center Certification is applied to technical documents, test reports, and other related materials that are developed in the TEK Center. Only after very extensive analysis and review by our highly trained and experienced engineers, can a deliverable earn the prestigious TEK Center Certification. It's a seal of excellence that you can rely on.



The enterprise LAN is undergoing an evolution. With an increasing reliance on wireless technologies and exploding bandwidth demand, the entire landscape of the enterprise network is changing and will continue to change quickly. Berk-Tek offers solutions that uniquely meet these challenges and ensure superior network performance both now and in the future.

**Everything IP:
Preparing for the future.
Every day.**

Berk-Tek has invested millions of dollars preparing for Everything IP. Our engineers, researchers and network specialists in the TEK Center have pioneered innovative new solutions for robust network infrastructure that can deliver guaranteed performance in tomorrow's challenging network environments.

EVERYTHING IP
Connect. Control. Converge.



Berk-Tek has identified three interrelated market drivers:



A Bandwidth Explosion:

Due to unprecedented bandwidth demand, in 2014, the IEEE started a new technology initiative (802.3bz) to develop a way to transmit 2.5G and 5G over Cat 6 solutions (possibly 2.5G over Cat 5e). There are significant technological hurdles to overcome with this, primarily with alien crosstalk, which neither Cat. 5e nor Cat. 6 was designed to handle. Additionally, Cat 6A (10G) technology is now needed in enterprise applications like wireless access points (WAPs), and HD and UHD (4K) Video applications that require this bandwidth.



An Evolution in Wireless:

The result of not only the billions of new wireless devices that are connecting each year, but also the growing bandwidth that each device is capable of transmitting and receiving. This Evolution in Wireless is why we have the IEEE 802.3ac standard. When fully rolled out, this standard will allow up to 6.9Gbps of bandwidth to flow from the WAPs back to the IDF. Another standard in development now is the IEEE 802.3ax, which will likely allow for a four-fold increase over 802.11ac. When 802.11ax technology is fully deployed, close to 30Gbps could be transmitted from the WAPs back to the IDF or Telecom Room.



More Power over Ethernet:

The next generation of PoE (IEEE 802.3bt) will allow for more than a six-fold increase in the amount of power transmitted through our IP networks (up to 100W). With it, IP networks will not only connect devices like digital signage and TV monitors, but will also be able to power them.

With these three drivers — and their variations, extensions and combinations — the entire science of network engineering and design is going through a radical metamorphosis.

The evolving enterprise.

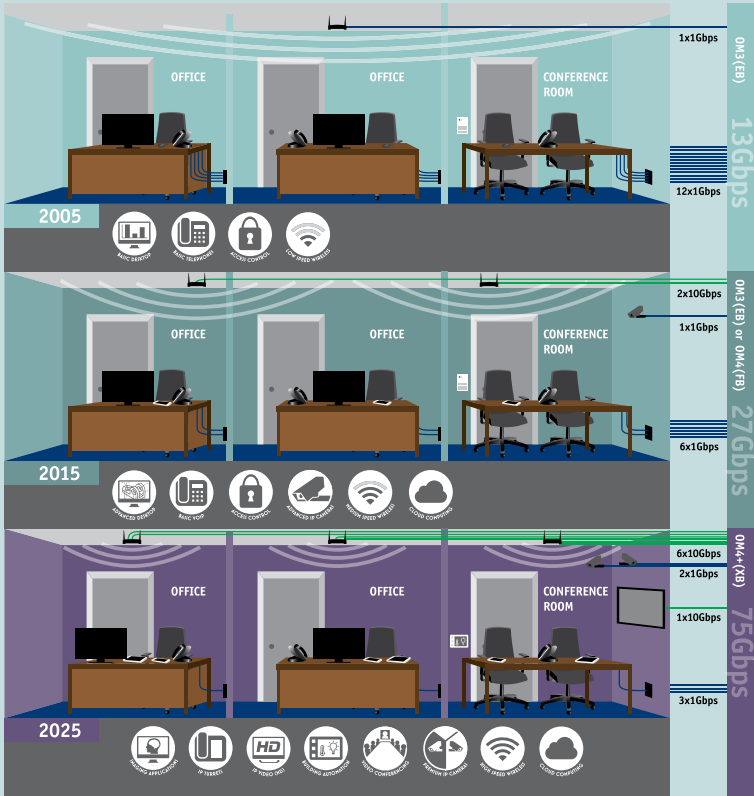
Increasing bandwidth to the fiber backbone.

Several years ago, standard practice was to drop four one-gigabit-per-second (Gbps) network drops to each wall outlet. Back then, wireless was considered a convenience, and it was purely an optional overlay.

Today, we are witnessing fewer 1Gbps network drops to each wall outlet and many more 10Gbps ceiling drops to support wireless growth. Wireless has evolved from an optional convenience to an expected service.

Moving forward, the ceiling will become digitized with connected sensors to control building automation systems. Additionally, bandwidth demands will ultimately require WAP density of one WAP per room. Like any media (fiber, copper, wireless), there is an inverse relationship between bandwidth and reach. WAP's will need to broadcast using higher frequencies (5GHz and beyond), where it becomes more difficult to penetrate walls, doors and other barriers.

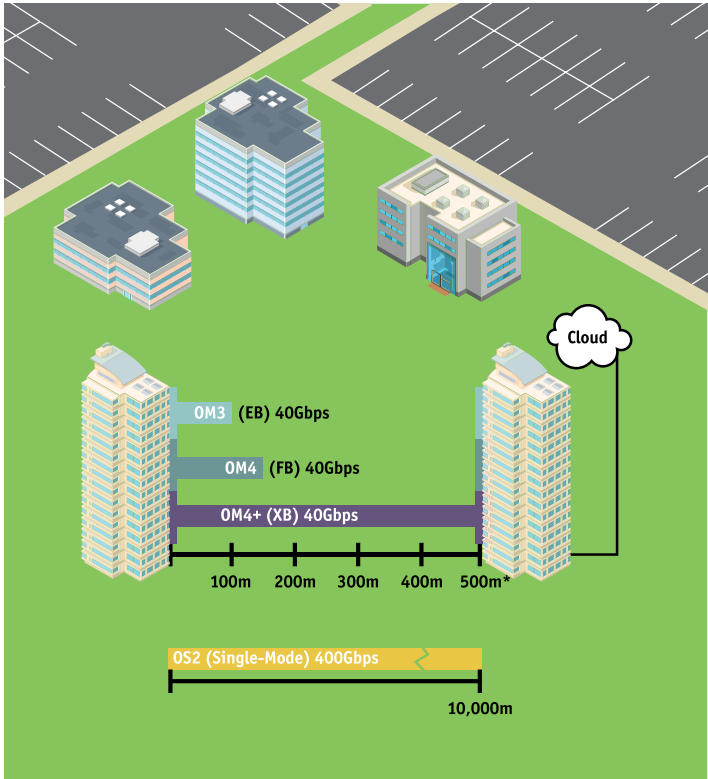
The Industry's Transition



The building backbone needs to support a 10X transition from 1Gbps wall outlets to 10Gbps ceiling drops.



In the near future, the current network infrastructure will need a massive overhaul because of all the connected devices and resulting data that will need to be processed. In fact, the campus backbone needs to support 10 times the amount of bandwidth from building to building and to the cloud.



The need for a 40Gbps backbone

The backbone connecting buildings to other buildings and to the cloud will need to support growing bandwidth demand. In order to take full advantage of cloud computing, there are three basic necessities.

1. High Bandwidth
2. Cost-Effectiveness
3. Total Reliability

Several vendors can provide you with a reliable fiber solution, but the difference is really in the bandwidth. Higher bandwidth means less power budget, and that means:

1. Less Reach
2. Fewer Connection Points

That's where Berk-Tek's unique solution comes in. With our GIGAlite™ -10XB OM4+ fiber combined with our enhanced transceivers, you get the industry's only 40Gbps multi-mode (MMF) backbone that reaches 500 meters. This solution will cover about 85% of all backbone connections points for a lot less money than moving to single-mode fiber.

OneReach at a Glance

With integrated power and data, OneReach extends Power over Ethernet technology far beyond traditional limitations. OneReach enables you to easily realize all the benefits of simplification and cost-effectiveness of PoE and High PoE in installation environments that exceed the standard distance limitations of Power over Ethernet. With Gigabit Ethernet capability, OneReach extends the options for supporting remotely located data intensive applications such as wireless access points. OneReach allows Power over Ethernet devices to be located more than 100m away from the Telecommunications Closet or Head End more cost effectively than running separate power and data connections.

Features

- Supports Gigabit Ethernet
- Combines control and communication in industrial pathways
- Provides common pathway for fiber backbone and Class 2 power supply
- OM3 optical fiber standard. Other fiber types available on request
- Options for redundant power supply
- Various cable constructions available to support diverse installation environments
- Options for single port or multiple port remotes

Benefits

- Enables PoE (12 Watts), PoE+ (25.5 Watts) & HPoE (60 Watts) equipment to be located more than 100 meters from the switch
- Simplifies network and device management through centralized IT infrastructure
- Extends remote application options and performance with Gigabit Ethernet capability
- Significant cost savings versus installation of a new electrical outlet with hardened devices
- Indoor/Outdoor CL3P-OF and CL3R-OF/PLTC-OF listing allows cables to be installed in plenum or riser communication pathways and avoid transition points between indoor and outdoor environments
- Ease of installation with optional pre-terminated and factory tested products arriving ready to install

**Typical Applications**

Supporting IEEE 802.3af & IEEE 802.3at compliant devices such as security cameras, wireless access points, blue phones, card readers, VoIP phones, and more...in:

- Airports, train stations and other transit facilities
- Parking garages
- Stadiums and amphitheaters
- Convention centers
- Outdoor public spaces
- Large data centers
- Warehouses
- Industrial facilities involved with manufacturing and processing
- School and university campuses
- Walking, biking and hiking trails

To configure a complete solution visit: www.OneReachSystem.com



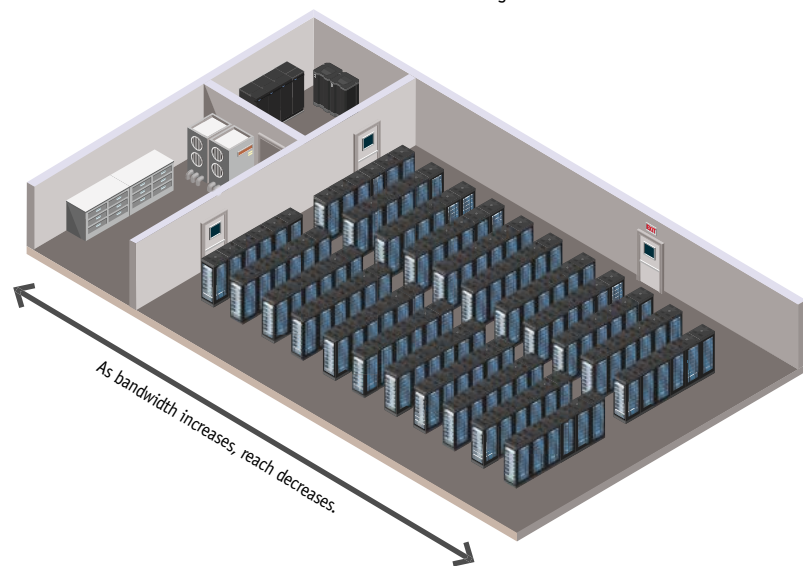


Ever-increasing bandwidth demand is pushing data center capacity to its max. Data center and network planners need to maximize power budgets to achieve more reach, with more connections and higher bandwidth per link. That's where Berk-Tek comes in.

Want to maximize performance in your data center?

Industry reports forecast that 24.5 billion IP devices will be connected to networks in the next few years — that's more than 3 devices for every man, woman and child on the face of the earth! And it's not only the number of devices; but also the bandwidth demand that each device can generate and transmit.

Add to that the growing IP convergence in the office with more devices connected and more traffic moving onto IP networks, beyond data. Voice, and video from A/V, security, and conference call applications is running over networks too and in addition to convergence in the enterprise, many companies are outsourcing their internal data center to the cloud.



All that IP traffic has to go somewhere, and the ever-increasing bandwidth demand is pushing data center capacity to its max. That means more racks of switches, servers and equipment, more connection points and more bandwidth per link – up to 100G and beyond. The result: shorter reach and a dwindling power budget due to decibel loss.

Because bandwidth demand will continue to grow, driving data center growth, it's crucial for data center and network planners to maximize the power budget to achieve more reach, with more connection points and with higher bandwidth per link. That's where Berk-Tek can help.

All that data has to go somewhere. Data centers have had to grow in order to accommodate more equipment like servers and switches.



Berk-Tek's Power Budget Calculator puts Layer 1 performance in the hands of the people who are most familiar with it. It takes the complex interactions of the various contributors to link performance and puts them into a simple-to-use calculator to allow the user (or specifier) to design a link that works best.

Download the Berk-Tek
Power Budget Calculator at
www.berktektransceivers.com

If you're responsible for Layer 1 performance, shouldn't you control all of Layer 1? At Berk-Tek, we think so, and we understand, through years of TEK Center testing, that the transceiver can have a tremendous effect on your network. To maximize Layer 1 performance, it's important to tightly specify all the components, including the transceiver. And since a transceiver's performance has more to do with the cabling than the equipment, it follows that the cable and transceivers need to be specified together, as a unit or system.

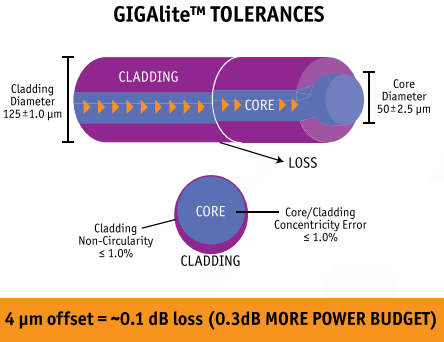
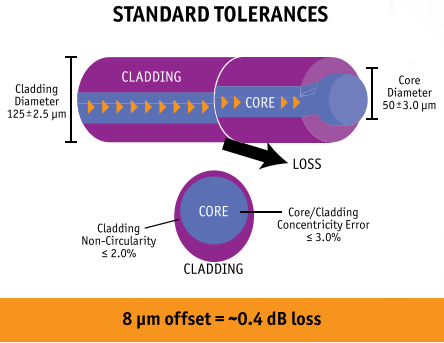
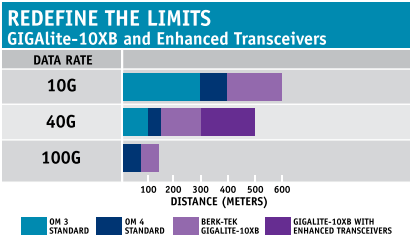
Our TEK Center engineers have been precisely engineering links to improve performance by developing breakthrough products with performance better than the industry standards — like Berk-Tek's GIGAlite glass, for example. GIGAlite™ tolerances are significantly tighter than industry standards, and that means superior performance: up to 20% more power budget and a reach of up to 300 meters at 40G.

When you pair Berk-Tek's GIGAlite glass with Berk-Tek transceivers, you own the entire link, maximizing performance. Berk-Tek transceivers are specified to perform beyond the standard, so you maximize your power budget and get consistent, reliable performance with every unit and link.

You also get a simplified supply chain — one trusted, industry-leading supplier with products that are designed to work together to provide optimal performance well beyond the standard. Of course, Berk-Tek's solutions engineers and TEK Center experts are always available to help you with the consistent, reliable support you've come to expect from Berk-Tek.



MDP (Micro Data Center Plenum) indoor cables are designed specifically to enable high density backbone connectivity in existing or new data centers. These rugged cables are available in fiber counts from four to 288 optical fibers. This design offers dramatically reduced cable diameters of up to 50% over typical indoor/outdoor and premises distribution style cable offerings. These cables are pre-terminated using industry standard MPO (MTP) multi-fiber optical connectors, or LC connectors. They provide the highest density, most flexible backbone connectivity solution available for data centers and SAN installations.





Berk-Tek's solutions will make your job easier and more profitable. From our extensive product offerings that are tested beyond the standards under real-world conditions, to our unique packaging designs that save your company time and money, Berk-Tek is a resource you want in your corner when planning your customer's next project.

We want to make your work easier and more profitable.



Berk-Tek offers an OASIS Certified Integrator program for systems professionals who qualify. Only those contractors that demonstrate a commitment to quality workmanship, knowledge of industry standards, and that adhere to positive, proactive business management practices are admitted to the OASIS Certified Integrator program.

We know that you have an obligation to your customers: to build the best-performing network infrastructure as cost-effectively as possible. That's why we offer a full selection of contractor support services and programs to make your work easier and more profitable.

The Berk-Tek OASIS program is designed specifically to address component compatibility and installation variables in the structured cabling system and deliver guaranteed total system performance. At its core, OASIS utilizes Berk-Tek's premier LANmark™ series of UTP cables and our premium GIGALite™ fiber optic technology in concert with connectivity provided by the world's leading vendors. Carefully matched and qualified through extensive research and testing, every OASIS Solution provides guaranteed total channel performance and unmatched flexibility.

OASIS: Guaranteed Total System Performance

All OASIS connectivity partners have been carefully selected and qualified, and every OASIS Solution has been extensively tested to verify consistent channel performance. As a result, the Berk-Tek OASIS Solution installed today will not only maximize the value of your current application, it will also provide seamless migration to tomorrow's technology. Guaranteed.

OASIS Connectivity Partners are carefully selected and qualified.

Fully leveraging high-speed network applications in the enterprise requires a structured cabling system designed to meet current and emerging standards, end-to-end. To achieve optimal network performance, every component in the system must be fully compatible, perfectly matched and expertly installed. The Berk-Tek OASIS program is powerful enough to deliver guaranteed performance, yet flexible enough to utilize your preference for connectivity.

For guaranteed system performance, high-quality network components are only part of the equation. Complete system performance and reliability also requires knowledgeable and skilled technicians to install and test the network according to industry standards. And that's where you come in.

Berk-Tek thoroughly reviews every application and then administers rigorous technician testing to ensure that only the best contractor organizations are authorized to offer the 15-year OASIS and limited lifetime Berk-Tek Leviton Technologies warranties.

Ask your Berk-Tek sales representative for more details or call 1-800-BERK-TEK.

There are many benefits to being a certified contractor in the OASIS program. In addition to being one of a very select group, you can offer warranties, have access to trainings and participate in the OASIS rebate programs. To become an OASIS Certified Installer or to learn more about the program, visit www.berktekoasis.com.



Your time is money. Save on both with Berk-Tek.

Make Installs Faster and Easier with TekLok and smartPAK

It may seem like a small thing, but to a veteran installer, it's important: Berk-Tek's innovative and unique packaging designs have revolutionized cable installation.

TekLok Benefits at a Glance

- Standard feature on all Tek Pak pull boxes
- Available on 1,000 ft. boxes only
- Create more stable pulling stacks quickly and easily
- Easy to assemble interlocking tabs; no special tools required
- Quicker installation allows for reduced project costs
- Unique, environmentally-friendly design offers less packaging waste

LANmark™-6 can mean more profit for you!

When the budget is tight, and network performance is still demanding, count on the verified and guaranteed performance of LANmark-6, and the installation efficiency and cost-savings of smartPAK. Then watch the savings go right to your bottom line.

LANmark™-6 Benefits at a Glance

- No center spline means fewer steps, less jobsite debris and faster installation
- Minimized star (*) passes, thanks to 2 dB of margin on NEXT, PSNEXT, ACR and PSABR.
- Small diameter cables mean better fill ratios in conduit or tray and allow for easy access at patch panels.



Try the online smartPAK calculator to see how much you can save on your next project at www.smartpakcable.com.

smartPAK
1500ft



Have a larger project? Reduce scrap, waste and time with smartPAK. With 1,500 feet of cable in each box, versus standard 1,000 ft. boxes, Berk-Tek's smartPAK delivers the convenience and ease of use of a traditional pull-box with the additional benefits of 50% more cable. You get more cable pulls per box, saving you on labor and scrap. More cable means

fewer boxes to transport and fewer changeovers, saving you time. The result: More efficient installations, reduced labor and waste and reduced costs. All core Berk-Tek UTP plenum and riser products are available in both TekLok and smartPak packaging (in all colors).



CATEGORY 6A

LANmark-XTP	44
LANmark-10G2	46
LANmark-10G FTP	48
LANmark-10G OSP	50
TEKPatch Mini 6A	52

CATEGORY 6

LANmark-2000	54
LANmark-1000	56
LANmark-1000 OSP	58
LANmark-6	60
LANmark-6 OSP	62
LANmark-6 FTP	64


CATEGORY 5E


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Hyper Plus 5e	68
Hyper Plus 5e OSP	70
LANmark-350	72
LANmark-5e FTP	74


INDUSTRIAL

LANmark-LD689	76
LANmark-MD535	78
LANmark-MD537	80
LANmark-MD587	82
LANmark-MD585	84
LANmark-MD540	86
LANmark-HD541	88
LANmark-HD542	90
LANmark-HD538	92
LANmark-HD539	94
LANmark-HD547	96
LANmark-HD545	98
LANmark-HD637	100

Product Icon Key


 Berk-Tek's maximum recommended number of bundled homogeneous cables under the following conditions: Every cable energized to 100W (IEEE 802.11bt Type 4 PoE), and ambient room temperature assumed to be 45°C (113°F) for the length of the bundle. If planning to operate cables where elevated temperatures are possible (>20°C), take proper precautions when handling cabling. Please note bundling cables creates worst-case; therefore, if cables are not bundled, then the recommended maximum number of cables will increase in the conditions described above.

 The maximum temperature to which the cable has been UL listed. This is a safety listing, and under no circumstances should a cable be placed in an environment where the temperature could exceed the maximum UL listing. For reference; 75°C = 167°F and 90°C = 194°F.

 PEP (Product Environmental Profile) Ecopassports fulfill all LEED requirements for Environmental Product Declarations (EPDs) as they conform to ISO 14025 and follow EN 15804. PEP is an industry-wide organization which runs a program to provide Type III Environmental Product Declaration (EPD) for electrical, electronic, and HVAC products according to ISO 14025. Within the PEP association, EPDs are called PEP Ecopassports®. PEPs are product-specific EPDs and are valued as one full product towards LEED credit.

CA score	Score	<3.6	3.6-5.5	5.6-6.5	6.6-7.5	7.6-8.5	8.6 +
	Performance	Unacceptable	Poor	Limited	Good	Better	Best
	Heat Rise	Severe	Significant	Moderate	Moderate	Moderate	Low

Converged Application Score.
The CA score ranges from 1 to 10, with a score of 10 being the best. A low CA Score means that there were consistent noticeable flaws (dropped frames, media loss, etc) in the applications tested. Higher scores mean there were fewer flaws. PoE testing is also an important factor; cables that experience less temperature rise achieve higher CA Scores.

 HPD (Heath Product Declaration) is an open standard that contains a standardized format and instructions for reporting a product's contents and its related Health information. This is in contrast to a PEP or EPD, which quantifies and reports the product's environmental impact. HPDs can contribute towards LEED points.

Specify with certainty because uncompromising performance is our standard.

For more than 50 years, the Berk-Tek brand has been synonymous with high-quality/high-performance copper cabling. The list of Berk-Tek firsts is impressive, led by our industry-standard line of LANmark™ products.

When you specify any of the Berk-Tek LANmark™ products you can be sure that you are getting the performance you expect thanks to the ETL LANmark Verification Program. While many manufacturers claim performance above the standard, Berk-Tek is the first manufacturer to independently verify performance not to the standard, but beyond the standard to our own specifications.

Through this program, Intertek, the world's largest independent testing, inspection and certification provider and proprietor of the ETL Verification Mark, independently selects and tests the Berk-Tek LANmark products to verify that performance meets or exceeds the guaranteed specification levels, ensuring that you receive the headroom you expect.

Put speculation and guesswork aside, and choose the only manufacturer providing independent verification of performance to product specifications: Berk-Tek.

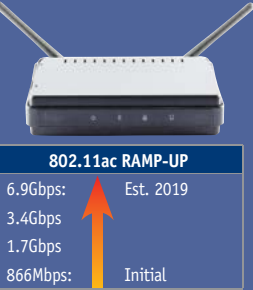


Protect your network traffic from noise and heat in the real world with performance-leading LANmark-1000, LANmark-2000, LANmark-10G2 and LANmark-XTP cables. Only from Berk-Tek.



LANmark™ and Wireless

The wireless 802.11ac standard will ramp to 6.9Gbps from the wireless access point (WAP) back to the telecommunications room (TR). Therefore, Category 6A, which supports 10Gbps, is needed to support the full potential of 802.11ac. TIA TSB 162-A recommends two Category 6A cables per WAP to support future expansion. Berk-Tek recommends our LANmark-XTP Category 6A cable because of its superior performance protecting your IP traffic from the effects of noise, alien crosstalk, and heat from PoE.



Achieve maximum performance for voice, data and power and protect your IP traffic from noise and heat.

When PoE was introduced over a decade ago, it changed the landscape of structured cabling networks. Today, for many applications, it's standard operating procedure. But higher power PoE is coming, and protecting network traffic from the noise and heat inherent with PoE will be critically important as the applications advance.

With their advanced engineering and field-proven design, Berk-Tek's LANmark integrated data cables protect your network from noise and heat, while they deliver consistent performance in real-world applications.



Proprietary insulating materials protect voice, data, video and other network traffic from heat. Our Tek-Twist technology protects network traffic from noise, while our field-tested and installer-proven premium jacketing materials protect the cable itself from the physical hazards of field installations.

As a result, your network is ready to support increasing demands for simultaneous voice, data, and power without compromising performance.

Features and Benefits

- Proprietary materials protect from heat
- Tek-Twist Technology protects from noise
- Only premium jacketing compounds are used, protecting your network investment



Choosing the right Category 6A Option: One size does not fit all.

LANmark™ is the favorite Cat 6A cable line for a reason: flexibility. The entire LANmark™ line features advanced engineering and field-proven design. All Berk-Tek Category 6A options deliver extraordinary electrical performance, including support for robust PoE applications, while they protect your network from noise and heat. That makes choosing the right cable for your installation as flexible as you need it to be.

	GOOD	 LANmark-10G2 meets the Cat 6A spec for Alien Crosstalk and provides excellent noise rejection and high PoE capability.
	BETTER	 LANmark-XTP is a “step-up” choice for Cat 6A applications with outstanding signal isolation, excellent high PoE performance and Alien Crosstalk performance that exceeds the Cat 6A standard.
	BEST	 LANmark-10G FTP is an FTP Cat 6A cable option that provides the most robust performance available in a Cat 6A cable. It features our best performance characteristics of any Cat 6A option.

AT A GLANCE

- ✓ LANmark-10G2 is a good baseline choice for Cat 6A when the budget is tight.
- ✓ LANmark-XTP has a discontinuous shield that does not need to be grounded.
- ✓ LANmark-XTP provides performance close to FTP but at a cost that is only a small premium over LANmark-10G2.



Tested to 750 MHz | Supports 10 Gigabit Ethernet | Superior Alien Crosstalk Compliant Performance

- Innovative noise canceling XTP Technology delivers superior alien (AXT) performance
- Backwards compatible with Gigabit Ethernet to provide seamless migration to 10GBASE-T
- Manages the convergence of voice, video, data and power at 10 Gigabit Ethernet speeds, simplifying networks
- Supports both long and short channel
- Easier installation and cable management with reduced outer diameter of 0.270"
- Error-free performance of up to 10 Gigabit Ethernet with full duplex transmission up to 500 MHz
- No bonding or grounding needed allows for simple and efficient installation

PART NUMBERS	CMP	CMR
Description	Berk-Tek	Berk-Tek
Gray 1000 ft. Reel	11094954	11095916
White 1000 ft. Reel	11082058	11082063
Blue 1000 ft. Reel	11082057	11082062

APPLICATIONS

Berk-Tek's LANmark-XTP UTP cable is intended to support the highest speeds in networking today— 10 Gigabits per second.

IEEE 802.3an	10GBASE-T	10 Gbps
IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA 854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
CDDI	10GBBASE-T	10 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	1 Gbps
IEEE 802.3at	PoE+ Type 1&2	1 Gbps
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		

STANDARDS

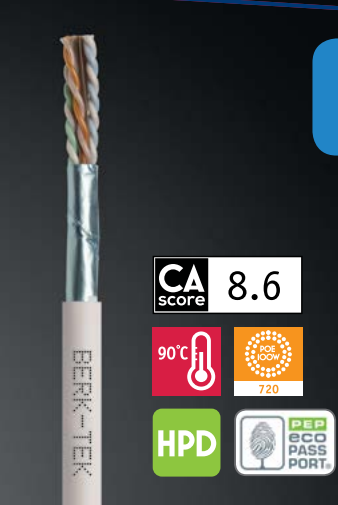
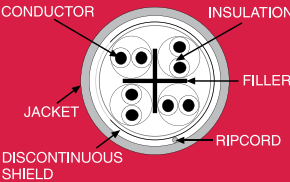
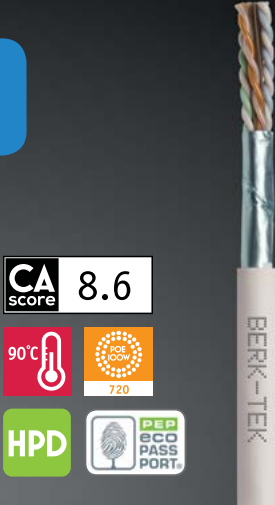
North American	ANSI/TIA-568-C.2 Category 6A UL 444 & C22.2 No. 214-02
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CONSTRUCTION

Bare copper wire insulated with FEP, 2 primaries twisted together to form a pair, 4 pairs cabled together with central filler to form a basic unit. Cable core surrounded by aluminum/polyester tape with flame-retardant polymer alloy.

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG solid bare copper	23 AWG solid bare copper
Conductor Diameter	0.023 in.	0.023 in.
Insulated Conductor Diameter	0.042 in.	0.044 in.
Cable Diameter	0.270 in.	0.275 in.
Cable Weight	40 lb./kft.	37 lb./kft.
Min. Bend Radius	1.08 in.	1.20 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	70% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +90°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C
FLAME RATING		
Non-Plenum	NFPA 70, CMR	
Plenum	NFPA 70, CMP	





Tested to 750 MHz | Supports 10 Gigabit Ethernet | Alien Crosstalk Compliant

- Flexible, round, compact design
- Alien crosstalk compliant—ETL Verified
- Headroom for all crosstalk parameters
- Fully compliant to Category 6A requirements
- Documented balance characteristics (LCL/TCL, EL TCTL)
- Reduced attenuation (Insertion Loss)
- Highest-performing UTP cable available
- Easier installation and cable management with round design
- Capable of reliably supporting 10GBASE-T networks
- Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics, improve overall cable performance and reduce transmission errors
- Improved insertion loss for stronger signal to noise ratio
- Characterized to 750 MHz, 250 MHz greater than the standard

Available in Reel in a Box

PART NUMBERS	CMP	CMR
Description	Berk-Tek	Berk-Tek
Blue 1000 ft. Reel in a Box	11085339	11084689
White 1000 ft. Reel in a Box	11089901	11089906
Gray 1000 ft. Reel in a Box	11089905	11089907

PART NUMBERS	CMP	CMR	PATCH
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Reel	10137183	10137701	11035873
White 1000 ft. Reel	10137384	10137703	10177330
Blue 1000 ft. Reel	10130484	10137700	10123772
Yellow 1000 ft. Reel	10137385	10137706	—
Green 1000 ft. Reel	10137694	10138770	10135528

APPLICATIONS

Berk-Tek's LANmark-10G2 UTP cable is intended to support the highest speeds in networking today—10 Gigabits per second.

IEEE 802.3an	10BASE-T	10 Gbps
IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA 854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		10 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		

STANDARDS

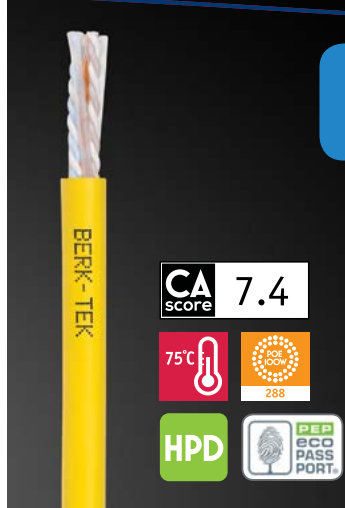
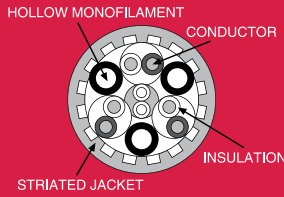
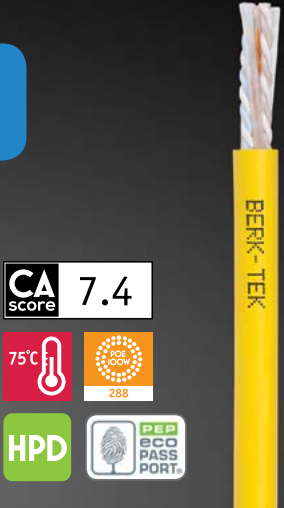
North American	ANSI/TIA-568-C.2 Category 6A UL 444 & C22.2 No. 214-02
International	EU Directive 2006/96/EC (Low Voltage) EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit made round with 3 monofilaments and with a striated flame-retardant PVC jacket.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.023 in.	0.023 in.	0.019 in.
Insulated Conductor Diameter	0.044 in.	0.047 in.	0.033 in.
Cable Diameter	0.300 in.	0.320 in.	0.290 in.
Cable Weight	38 lb./kft.	42 lb./kft.	40 lb./kft.
Min. Bend Radius	1.2 in.	1.3 in.	1.2 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	67% nom.	66% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

FLAME RATING	
Non-Plenum	UL 1666, CMR, IEC 332-1
Plenum	NFPA 262, CMP
Patch	UL 1685, CM, IEC 332-1



One Overall Foil Shield | Guaranteed to Category 6A | Superior Alien Crosstalk Performance

- ETL Verified to ANSI/TIA-568-C.2
- Outstanding signal isolation
- Resistant to alien crosstalk
- Increased signal isolation prevents contaminant noise from entering cabling system
- Completely compliant with IEEE requirements
- Lower bit errors resulting in increased network performance

APPLICATIONS

Berk-Tek's LANmark-10G FTP cable is intended for high-speed data applications up to 500 MHz including:

IEEE 802.3	10BASE-T	10 Gbps
IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA 854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		

STANDARDS

North American	ANSI/TIA-568-C.2 UL 444 & C22.2 No. 214-02
International	IEC 61156-5 ED2.0_46C844CDV EU Directive 2011/65/EU (RoHS)

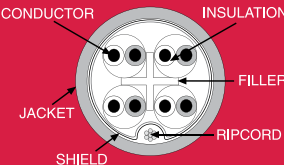
CONSTRUCTION

23 AWG, bare copper wire insulated with FEP. Two insulated conductors twisted together with varying layers to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame-retardant PVC.

PART NUMBERS	CMP	CMR
Description	Berk-Tek	Berk-Tek
Gray 1000 ft. Reel	10167487	10189798
White 1000 ft. Reel	10167485	10189801
Blue 1000 ft. Reel	10143424	10189567
Yellow 1000 ft. Reel	10167488	10189803

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG solid bare copper	23 AWG solid bare copper
Conductor Diameter	0.023 in.	0.022 in.
Insulated Conductor Diameter	0.042 in.	0.044 in.
Cable Diameter	0.275 in.	0.300 in.
Cable Weight	39 lb./kft.	38 lb./kft.
Min. Bend Radius	2.20 in.	2.40 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72% nom.	72% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +90°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C
FLAME RATING		
Non-Plenum	UL 1666, CMR	
Plenum	NFPA 262, CMP	



23 AWG bare copper wire insulated with polyethylene | Intended for high speed data applications

- Meets the requirements of ANSI/TIA/EIA-568-C.2
- Usable bandwidth up to 500 MHz
- Fully water blocked
- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplified structured cabling solution preserving long-term network investment
- Warranted, trouble-free cabling installation and maintenance
- Meets NEC requirement for wet locations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBERS	OSP
Description	Berk-Tek
Black 1000 ft. Reel	11094458

APPLICATIONS

Berk-Tek's LANmark-6A UTP cable is intended for high speed data applications including:

IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA-854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
802.3af PoE		
802.3af PoE+		

STANDARDS

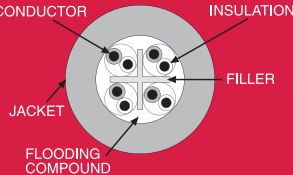
North American	ANSI/TIA/EIA-568-C.2 Category 6A ETL Verified ANSI/ICEA S-56-434 Outdoor Use ANSI/ICEA S-107-704-2012 PAR 8.2.1 Water Penetration
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CONSTRUCTION

23 AWG bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled around a cross filler to form the basic unit which is injected with a water resistant flooding compound and jacketed with black weather resistant polyethylene jacket.

TECHNICAL DATA — PHYSICAL		
Conductor	23 AWG Bare Copper	
Conductor Diameter in. (mm)	0.023	(0.58)
Insulated Conductor Diameter	0.047	(1.19)
Cable Diameter	0.355	(9.02)
Cable Weight	50	(22.68)
Cable Jacket	25	(111)
Min. Bend Radius	1.42	(36.1)

TECHNICAL DATA — PARAMETRIC MEASUREMENTS	
Velocity of Propagation	5.3 nF/100 m nom.
DC Resistance	9.38 Ohms/100 m nom.
Skew	45 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	64% nom.



TEMPERATURE RATING

Operation	-40°C to +70°C
Installation	-30°C to +60°C

FLAME RATING

Non-Plenum	N/A
Plenum	N/A

58% lighter | 30% smaller bend radius | 33% smaller cross-sectional area than standard Cat 6A patch cables

- The OD of 0.195” offers a 33% smaller cross-sectional area
- Usable bandwidth up to 500 MHz
- Small diameter provides for optimal routing within tight racks and cabinets
- Optimized airflow
- Light weight
- Extremely flexible

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBERS	PATCH
Description	Berk-Tek
Blue 1000 ft. Reel	11088677
White 1000 ft. Reel	11091165
Grey 1000 ft. Reel	11095816

STANDARDS

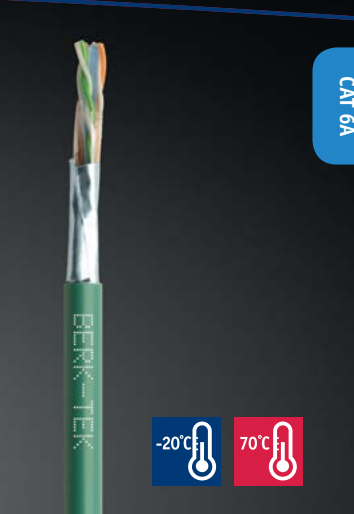
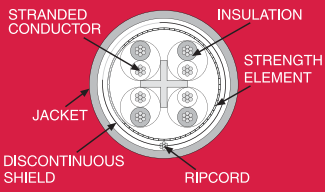
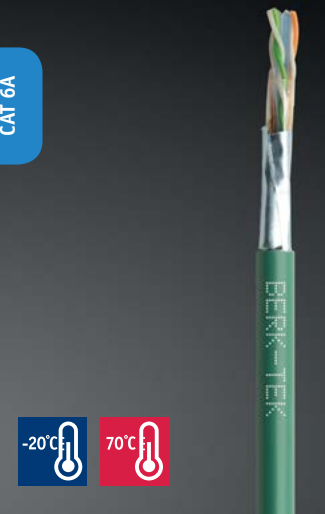
North American	UL 444 and C22.2 No. 214-02
International	EU Directive 2006/2/96/EC (Low Voltage) EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

28 AWG, stranded tinned copper wire insulated with polyolefin. Two insulated conductors twisted to form a pair and four such pairs cabled together with a central filler to form the basic unit. The basic unit is surrounded by polyester core tape and an aluminum/polyester shield. The cable core is jacketed with flameretardant PVC.

TECHNICAL DATA — PHYSICAL		
Conductor	28 AWG Stranded Tinned Copper	
Conductor Diameter in. (mm)	0.015	(0.381)
Insulated Conductor Diameter- in. (mm)	0.027	(0.686)
Cable diameter-in. (mm)	0.195	(4.953)
Nominal cable weight-lb./kft. (kg/kft)	16.5	(7.48)
Max. installation tension-lb. (N)	7.87	(35)
Min. bend radius-in. (mm)	0.78	(19.81)

TECHNICAL DATA — PARAMETRIC MEASUREMENTS	
Mutual Capacitance	5.6 nF/100 m at 1 KHz
DC Resistance	23.2 ohm/100m
Skew	45 ns/100 m maximum
Pair to ground Unbalance at 1kHz	330 pF/100 m
Velocity of Propagation	70% nom.
Input Impedance	1-100 MHz, 100 ohm ± 15%, 100-250 MHz, 100 ohm ± 22%
DC Resistance Unbalance	5% max., 1% nom.



TEMPERATURE RATING	
	CM
Operation	-20°C to +70°C
Installation	0°C to +50°C
FLAME RATING	
Patch	C (UL) US Listed as NEC Type CM 75°C



Tested to 600 MHz | Ideal for PoE and VoIP | CCTV Support | Ideal for 2.5G and 5.0G

- Full duplex operation capable over four cable pairs
- Increased usable bandwidth vs. the Category 6 standard
- Documented balance characteristics (LCL/TCL, EL TCTL)
- Reduced attenuation (Insertion Loss)
- ETL Verified to ANSI/TIA-568-C.2
- Provides additional performance margin to reliably support
- Gigabit Ethernet in high-noise environments
- Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics improve overall cable performance and reduce cable emissions which results in reduced transmission errors
- Characterized to 600 MHz, 350 MHz greater than the standard
- Extended distance guarantee

Available in Reel in a Box

PART NUMBERS	CMP	CMR	PATCH
Description	Berk-Tek	Berk-Tek	Berk-Tek
Light Gray 1000 ft. Reel in a Box	10167307	10167479	10033598
White 1000 ft. Reel in a Box	10167312	10167481	10033821
Blue 1000 ft. Reel in a Box	10163780	10167477	10033822
Yellow 1000 ft. Reel in a Box	10167309	10167483	10033823
Green 1000 ft. Reel in a Box	10170669	10170688	10033825

APPLICATIONS

Berk-Tek's LANmark-2000 UTP cable is intended for high-speed data and multi-media applications including:

IEEE 802.3an	1000BASE-T	1 Gbps
TIA/EIA 854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		
IP Video		
Broadband Video		

STANDARDS

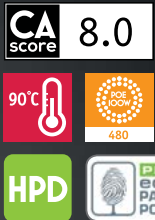
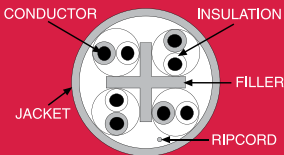
North American	ANSI/TIA-568-C.2 UL 444 & C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition CAT 6 EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.024 in.
Insulated Conductor Diameter	0.037 in.	0.039 in.	0.040 in.
Cable Diameter	0.220 in.	0.231 in.	0.250 in.
Cable Weight	30 lb./kft.	27 lb./kft.	28 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	72% nom.	72% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING

	CMP	CMR
Operation	-20°C to +90°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

FLAME RATING

Non-Plenum	UL 1666, CMR
Plenum	NFPA 262, CMP
Patch	UL 1685, CM, IEC 332-1





Tested to 550 MHz | 1000BASE-T Capable | Cable Balance Reduces Effects of Noise | Ideal for 2.5G

- Full power sum performance
- Documented balance characteristics (LCL, LCTL)
- ETL Verified to ANSI/TIA-568-C.2
- Available in smartPAK 1500 ft. pull-box packaging
- Optimal support for Gigabit Ethernet with headroom
- Power sum characterization gives highest performance for existing applications
- Addition of balance requirements improves overall cable performance and reduces transmission errors
- smartPAK boxes reduce cable scrap and increase install efficiency
- Characterized to 550 MHz, 300 MHz greater than the standard

SmartPAK 1500 ft. Boxes

PART NUMBERS	CMP (44 lbs./box)	CMR (33 lbs./box)
Description	Berk-Tek	Berk-Tek
Blue 1500 ft. smartPAK Box	11074694	11074701
White 1500 ft. smartPAK Box	11074738	11074740
Gray 1500 ft. smartPAK Box	11074739	11074741

PART NUMBERS	CMP	CMR	PATCH*
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Tek Pak Box	10032026	10032452	10032678
White 1000 ft. Tek Pak Box	10032092	10032459	10032679
Blue 1000 ft. Tek Pak Box	10032094	10032455	10032680
Yellow 1000 ft. Tek Pak Box	10032090	10032461	10032681
Green 1000 ft. Tek Pak Box	10032097	10032479	10032693

*Reels only

APPLICATIONS

IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA-854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		

STANDARDS

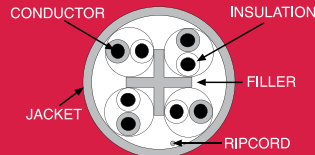
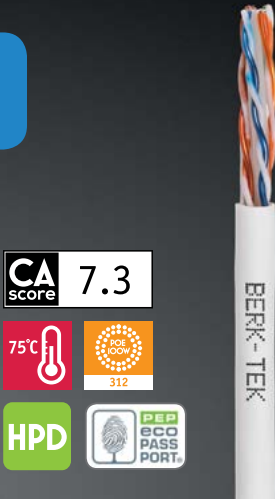
North American	ANSI/TIA-568-C.2 UL 444 and C22.2 No. 214-02
International	ISO/IEC 11801-2nd Edition CAT 6 EU Directive 2006/96/EC (Low Voltage) EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit, jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.024 in.
Insulated Conductor Diameter	0.040 in.	0.039 in.	0.040 in.
Cable Diameter	0.230 in.	0.230 in.	0.220 in.
Cable Weight	31 lb./kft.	25 lb./kft.	25 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	68% nom.	68% nom.	68% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C
FLAME RATING		
Non-Plenum	UL 1666, CMR, IEC 332-1	
Plenum	NFPA 262, CMP	
Patch	UL 1685, CM, IEC 332-1	
LSZH	IEC 332-1	

Tested to 250 MHz | Outdoor Use | High speed data applications

- Meets the requirements of ANSI/TIA/EIA-568-C.2
- Usable bandwidth up to 250 MHz
- Fully water blocked
- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplified structured cabling solution preserving long-term network investment
- Warranted, trouble-free cabling installation and maintenance
- Meets NEC requirement for wet locations
- ANSI/ICEA 5-107-704-2012, PAR 8.2.1 - Water Penetration

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBERS	OSP
Description	Berk-Tek
Black 1000 ft. Reel	11072213

APPLICATIONS

IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA-854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
802.3af PoE		
802.3at PoE+		

STANDARDS

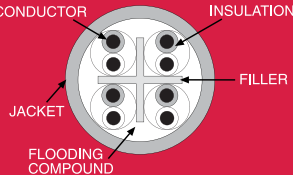
North American	ANSI/TIA/EIA-568-C.2 Category 6
	ANSI/ICEA S-56-434 Outdoor Use

CONSTRUCTION

23 AWG bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled around a cross filler to form the basic unit which is injected with a water resistant flooding compound and jacketed with black weather resistant polyethylene jacket.

TECHNICAL DATA — PHYSICAL		
Conductor	23 AWG Bare Copper	
Conductor Diameter in. (mm)	0.022	(0.56)
Insulated Conductor Diameter- in. (mm)	0.040	(1.02)
Cable diameter-in. (mm)	0.245	(6.22)
Nominal cable weight-lb./kft. (kg/kft)	30.5	(13.83)
Max. installation tension-lb. (N)	25	(111)
Min. bend radius-in. (mm)	1	(25.4)

TECHNICAL DATA — PARAMETRIC MEASUREMENTS	
Mutual Capacitance	5.3 nF/100 m nom.
DC Resistance	9.38 Ohms/100 m nom.
Skew	35 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	65% nom.



TEMPERATURE RATING

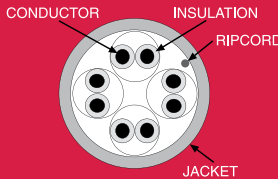
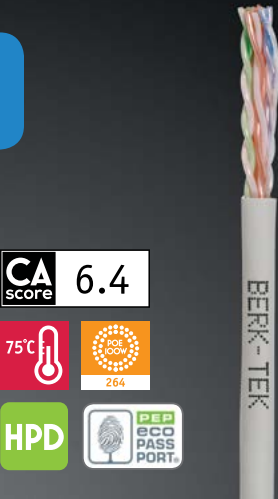
Operation	-40°C to +75°C
Installation	0°C to +60°C

FLAME RATING

Non-Plenum	N/A
Plenum	N/A



CAT 6



Guaranteed to 250 MHz | Cost-effective Category 6 Solution | No Center Spline | Ideal for 1.0G

- Inexpensive compact design with no center spline and an OD of 0.192"
- Available in smartPAK 1500 ft. pull-box packaging
- Meets the requirements of ANSI/TIA-568-C.2
- Usable bandwidth up to 250 MHz
- Delivered in compact, strong, easy to identify boxes
- smartPAK boxes reduce cable scrap and increase install efficiency
- Simplified installation
- Cost-effective, entry-level Category 6 solution
- Superior box design allows cable to be pulled easily from the box with minimum kinking
- Compact box design takes up less shelf space
- Characterized to 500 MHz, 250 MHz greater than the standard

SmartPAK 1500 ft. Boxes

PART NUMBERS	CMP (44 lbs./box)	CMR (33 lbs./box)
Description	Berk-Tek	Berk-Tek
Blue 1500 ft. smartPAK Box	11074702	11074703
White 1500 ft. smartPAK Box	11074742	11074744
Gray 1500 ft. smartPAK Box	11074743	11074745

PART NUMBERS	CMP	CMR
Description	Berk-Tek	Berk-Tek
Gray 1000 ft. Tek Pak Box	10132983	10136338
White 1000 ft. Tek Pak Box	10136230	10136340
Blue 1000 ft. Tek Pak Box	10136226	10136339
Yellow 1000 ft. Tek Pak Box	10136749	10136753
Green 1000 ft. Tek Pak Box	10136748	10136752

APPLICATIONS

Berk-Tek's LANmark-6 UTP cable is intended for high-speed data applications including:

IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA-854	1000BASE-TX	1 Gbps
ATM	155 Mb/s	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
IEEE 802.3bt	PoE Type 3&4	10 Gbps
HDBASE-T		

STANDARDS

North American	ANSI/TIA-568-C.2 UL 444 & C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition CAT 6 EU Directive 2006/96/EC (Low Voltage) EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

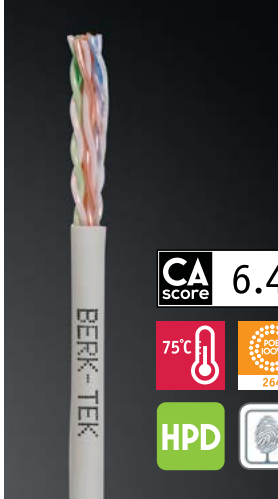
Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	24 AWG solid bare copper	23 AWG solid bare copper
Conductor Diameter	0.022 in.	0.022 in.
Insulated Conductor Diameter	0.040 in.	0.039 in.
Cable Diameter	0.220 in.	0.210 in.
Cable Weight	27 lb./kft.	22 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	67% nom.	69% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.



CAT 6



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

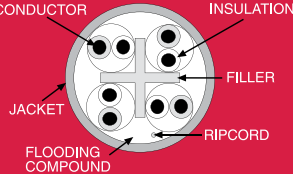
FLAME RATING	
Non-Plenum	UL 1666, CMR, IEC 332-1
Plenum	NFPA 262, CMP



Tested to 250 MHz | Supports 1000BASE-TX | Outdoor and Wet Compliant | 5% Propagation Allowance

- Meets the requirements of ANSI/TIA-568-C.2
- Usable bandwidth up to 250 MHz
- Fully water blocked
- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplifies structured cabling solution preserving long-term network investment
- Meets NEC requirement for cable in wet locations

PART NUMBERS	OSP
Description	Berk-Tek
Black 1000 ft. Reel	10139885



APPLICATIONS

Berk-Tek's LANmark-6 OSP UTP cable is intended for high-speed data applications including:

IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA-854	1000BASE-TX	1 Gbps
ATM	155 Mb/s	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
HDBASE-T		

STANDARDS

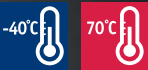
North American	ANSI/TIA/EIA-568-C.2 Category 6A ETL Verified ANSI/ICEA S-56-434 Outdoor Use ANSI/ICEA S-107-704-2012 PAR 8.2.1 Water Penetration
International	ISO/IEC 11801 EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled together around a cross-filler to form the basic unit. This basic unit is injected with a water-resistant flooding compound and jacketed with UV resistant polyethylene.

TECHNICAL DATA — PHYSICAL	OSP
Conductor	24 AWG solid bare copper
Conductor Diameter	0.021 in.
Insulated Conductor Diameter	0.042 in.
Cable Diameter	0.250 in.
Cable Weight	28 lb./kft.
Cable Jacket	Weather resistant polyethylene
Min. Bend Radius	1.0 in.

TECHNICAL DATA — ELECTRICAL	OSP
Velocity of Propagation	62% nom.
Time Delay Skew	45 nsec/100 m max.



TEMPERATURE RATING

	OSP
Operation	-40°C to +70°C
Installation	0°C to +60°C



Guaranteed to 500 MHz | Ideal for PoE and VoIP | CCTV Support

- ETL Verified to ANSI/TIA-568-C.2
- Outstanding signal isolation
- Can be used with RJ-45 style F/UTP connectivity
- Increased signal isolation prevents contaminant noise from entering cabling system
- Ideal for supporting 10 Gigabit Ethernet
- Lower bit errors resulting in increased network performance

APPLICATIONS

LANmark-6 FTP cable is intended for high-speed data applications including:

IEEE 802.3	10GBASE-T	10 Gbps
IEEE 802.3	1000BASE-T	1 Gbps
TIA/EIA 854	1000BASE-TX	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
HDBASE-T		

STANDARDS

North American	ANSI/TIA-568-C.2 UL 444 & C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition EU Directive 2011/65/EU (RoHS)

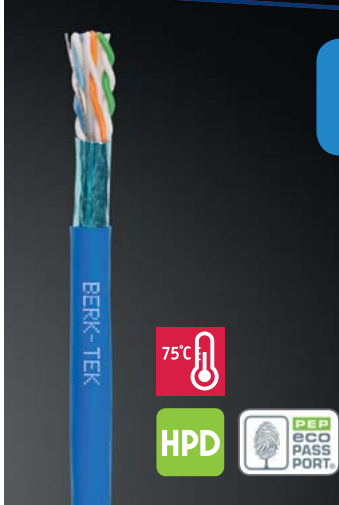
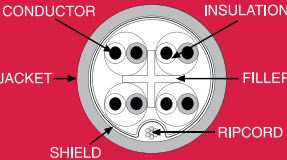
CONSTRUCTION

Bare copper wire insulated with foam FEP (plenum) or foam polyethylene (non-plenum). Two insulated conductors twisted together to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame-retardant PVC.

PART NUMBERS	CMP	CMR	PATCH
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Reel	10057903	10070439	10096091
Yellow 1000 ft. Reel	10062608	10090687	10123965
Red 1000 ft. Reel	10063671	10074211	10189258
Black 1000 ft. Reel	10063672	10074212	10189259

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.019 in.
Insulated Conductor Diameter	0.045 in.	0.045 in.	0.035 in.
Cable Diameter	0.285 in.	0.280 in.	0.230 in.
Cable Weight	40 lb./kft.	36 lb./kft.	23 lb./kft.
Min. Bend Radius	2.24 in.	2.24 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	71% nom.	68% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

FLAME RATING	
Non-Plenum	NFPA 262, CMP
Plenum	UL 1666, CMR
Patch	UL 1581, CM



Supports up to 100 watts and bandwidth requirements up to 1 Gigabit Ethernet

- The IP 5e cable utilizes 22 AWG copper conductors
- Small OD size of 0.240"
- No center filler
- All FEP insulated conductors
- 75°C temperature listing
- Usable bandwidth up to 250 MHz
- Tested in cable bundles to simulate real world worst case scenario
- Lower temperature rise support 4PPoE versus traditional Category 5e or 6
- Reduced energy costs
- Improved flexibility and ease of installation
- Bandwidth beyond Category 5e requirements - guaranteed performance
- 88% power efficiency
- Supports emerging technologies

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBERS	CMP
Description	Berk-Tek
Blue 1000 ft. Reel in a Box	11098078
White 1000 ft. Reel in a Box	11098079
Gray 1000 ft. Reel in a Box	11098080

APPLICATIONS

Berk-Tek's IP 5e indoor cable is designed to support emerging technologies and applications including:

IEEE 802.3	1000BASE-T	1 Gbps
ATM	155 Mb/s	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	1 Gbps
IEEE 802.3at	PoE+Type 1&2	1 Gbps
IEEE 802.3bt	4PPoE Type 3&4 draft D2.3	1 Gbps

STANDARDS

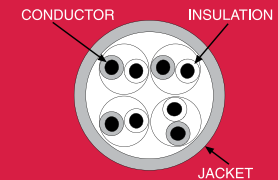
North American International	ANSI/TIA-568-C.2; UL 444 ISO/IEC 11801
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CONSTRUCTION

22 AWG bare copper wire insulated with thermoplastic. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with polymer alloy.

TECHNICAL DATA — PHYSICAL	CMP	
Conductor	22 AWG Bare Copper	
Conductor Diameter	0.026 in.	(0.66) mm
Insulated Conductor Diameter	0.045 in.	(1.14) mm
Cable Diameter	0.24 in.	(6.10) mm
Nom. Cable Weight	TBD	TBD
Max. installation Tension	25 lb.	(110) N
Min. Bend Radius	1.00 in.	(25.40) mm

TECHNICAL DATA — PARAMETRIC MEASUREMENTS	
Mutual Capacitance	5.2 nF/100 m max.
DC Resistance	9.38 Ohms/100 m max.
Skew	45 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Velocity of Propagation	66% nom.
DC Resistance unbalance	5% max.



TEMPERATURE RATING	
	CMP
Operation	-20°C to +75°C
Installation	0°C to +50°C

FLAME RATING	
Plenum	NFPA 60, CMP, UL Listed

Tested to 350 MHz | Cost Effective Choice for Voice/Data

- Supports most data and voice applications
- Available in smartPAK 1500 ft. pull-box packaging
- ETL Verified to ANSI/TIA-568-C.2
- smartPAK boxes reduce cable scrap and increase install efficiency
- Universally accepted design for global commercial network installations
- Simplified structured cabling solution preserves long-term network investment
- Characterized to 350 MHz, 250 MHz greater than standard

New SmartPAK 1500 ft. Boxes

PART NUMBERS	CMP (38 lbs./box)	CMR (27 lbs./box)
Description	Berk-Tek	Berk-Tek
Blue 1500 ft. smartPAK Box	11074705	11074706
White 1500 ft. smartPAK Box	11074746	11074748
Gray 1500 ft. smartPAK Box	11074747	11074749

PART NUMBERS	CMP	CMR	PATCH*
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Tek Pak Box	10032207	10032510	10032718
White 1000 ft. Tek Pak Box	10032223	10032535	10032716
Blue 1000 ft. Tek Pak Box	10032227	10032528	10032713
Yellow 1000 ft. Tek Pak Box	10032235	10032531	10032711
Green 1000 ft. Tek Pak Box	10032232	10032539	10032709

*Reels only

APPLICATIONS

Berk-Tek's Hyper Plus 5e Standard Category 5e UTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3 ATM	1000BASE-T	1 Gbps
IEEE 802.3 CDDI	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
IEEE 802.3af	10BASE-T	100 Mbps
IEEE 802.3at	PoE	10 Mbps
HDBASE-T	PoE+	

STANDARDS

North American	ANSI/TIA-568-C.2 Category 6A UL 444 & C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition CAT 5] EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with thermoplastic. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.020 in.	0.020 in.	0.024 in.
Insulated Conductor Diameter	0.038 in.	0.035 in.	0.040 in.
Cable Diameter	0.210 in.	0.187 in.	0.220 in.
Cable Weight	25 lb./kft.	18 lb./kft.	23 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	66% nom.	70% nom.	69% nom.
Time Delay Skew	45 nsec/100 m max.	25 nsec/100 m max.	45 nsec/100 m max.
Input Impedance (1-100 MHz)	100 ohm +/- 15%	100 ohm +/- 15%	100 ohm +/- 15%



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

FLAME RATING	
Non-Plenum	UL 1666, CMR
Plenum	NFPA 262, CMP
Patch	UL 1685, CM

Tested to 100 MHz | Supports 1000BASE-TX | Outdoor and Wet Environments

- Supports most data and voice applications
- Meets ANSI/ICEA 5-56-434 Standard for Polyolefin Insulated Communications Cables for Outdoor Use
- ETL Verified to ANSI/TIA-568-C.2
- Fully water blocked
- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplified structured cabling solution preserves long-term network investment
- Meets NEC requirement for cable in wet locations

PART NUMBERS	OSP
Description	Berk-Tek
Black 1000 ft. Reel	10071496

APPLICATIONS

Berk-Tek's Hyper Plus 5e OSP UTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3	1000BASE-T	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
HDBASE-T		

STANDARDS

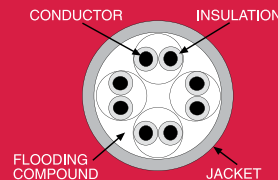
North American	ANSI/TIA-568-C.2 ANSI/ICEA 5-56-434
International	ISO/IEC 11801 2nd Edition CAT 5 EU Directive 2002/95/EC (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit which is injected with a water resistant flooding compound and jacketed with UV resistant polyethylene.

TECHNICAL DATA — PHYSICAL	OSP
Conductor	24 AWG solid bare copper
Conductor Diameter	0.020 in.
Insulated Conductor Diameter	0.038 in.
Cable Diameter	0.207 in.
Cable Weight	20 lb./kft.
Cable Jacket	Weather resistant polyethylene
Min. Bend Radius	1.0 in.

TECHNICAL DATA — ELECTRICAL	OSP
Velocity of Propagation	72% nom.
Time Delay Skew	25 nsec/100 m max.





Tested to 450 MHz | Ideal for 100BASE-TX | Headroom Above Category 5e

- Small, round design
- Available in smartPAK 1500 ft. pull-box packaging
- ETL Verified to ANSI/TIA-568-C.2 and ISO/IEC 11801
- Reliably supports 100BASE-TX Ethernet
- smartPAK boxes reduce cable scrap and increase install efficiency
- Reduced installation costs and maintenance
- Lower bit error rates, increases network efficiency and uptime
- Characterized to 450 MHz, 350 MHz greater than standard

New SmartPAK 1500 ft. Boxes

PART NUMBERS	CMP (36 lbs./box)	CMR (30 lbs./box)
Description	Berk-Tek	Berk-Tek
Blue 1500 ft. smartPAK Box	11074707	11074708
White 1500 ft. smartPAK Box	11074750	11074752
Gray 1500 ft. smartPAK Box	11074751	11074753

PART NUMBERS	CMP	CMR	PATCH*
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Tek Pak Box	10032079	10032447	10032649
White 1000 ft. Tek Pak Box	10032072	10032434	10032643
Blue 1000 ft. Tek Pak Box	10032065	10032426	10032639
Yellow 1000 ft. Tek Pak Box	10032060	10032419	10032637
Green 1000 ft. Tek Pak Box	10032086	10032428	10032647

*Reels only

APPLICATIONS

Berk-Tek's LANmark-350 Premium Category 5e UTP cable is intended for high-speed data applications up to 350 MHz including:

IEEE 802.3 ATM	1000BASE-T	1 Gbps
IEEE 802.3 CDDI	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
IEEE 802.3af	100 Mbps	100 Mbps
IEEE 802.3at	10BASE-T	10 Mbps
HDBASE-T	PoE	
	PoE+	

STANDARDS

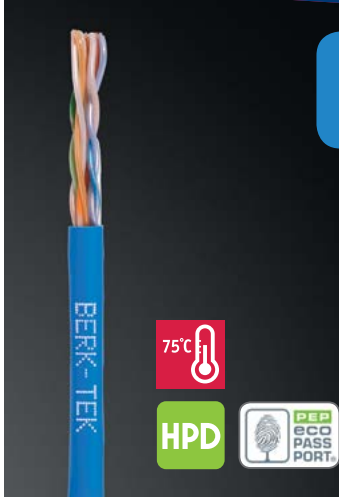
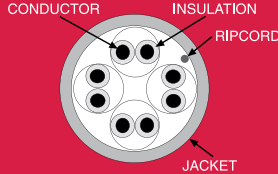
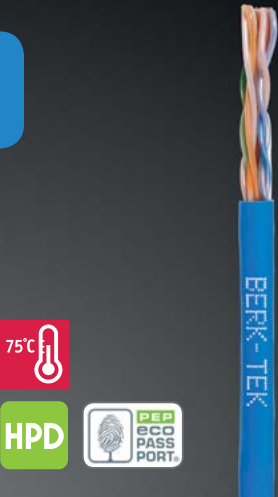
North American	ANSI/TIA/EIA-568-C.2 UL 444 and C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition CAT 5 EU Directive 2006/96/EC (Low Voltage) EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.020 in.	0.020 in.	0.024 in.
Insulated Conductor Diameter	0.036 in.	0.036 in.	0.040 in.
Cable Diameter	0.210 in.	0.187 in.	0.220 in.
Cable Weight	24 lb./kft.	20 lb./kft.	23 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	70% nom.	70% nom.	69% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C
FLAME RATING		
Non-Plenum	UL 1666, CMR, IEC 332-1	
Plenum	NFPA 262, CMP	
Patch	UL 1685, CM, IEC 332-1	



Tested to 100 MHz | 1000BASE-T Capable | Excellent Signal Isolation

- Independently verified to ANSI/TIA Category 5e
- Supports 10BASE-T, 100BASE-T, 1000BASE-T
- Reduces signal emissions for secure transmissions
- Reduced cable interference problems in areas of high EMI
- Extends performance limits for network applications thus increasing cabling lifetime
- Reduces signal emissions for secure transmissions

PART NUMBERS	CMP	CMR	PATCH*
Description	Berk-Tek	Berk-Tek	Berk-Tek
Gray 1000 ft. Reel	10032121	10043494	10035109
White 1000 ft. Reel	10047419	10047420	—
Blue 1000 ft. Reel	10034841	10051227	—
Red 1000 ft. Reel	10053566	10063684	—
Black 1000 ft. Reel	10061862	10068822	—

APPLICATIONS

LANmark-5e FTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3	1000BASE-T	1 Gbps
ATM	155 Mbps	155 Mbps
IEEE 802.3	100BASE-TX	100 Mbps
CDDI		100 Mbps
IEEE 802.3	10BASE-T	10 Mbps
IEEE 802.3af	PoE	
IEEE 802.3at	PoE+	
HDBASE-T		

STANDARDS

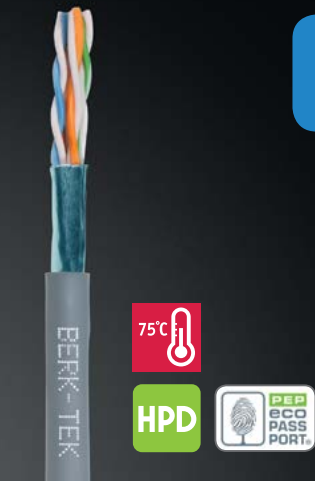
North American	ANSI/TIA-568-C.2 UL 444 & C22.2 No. 214-02
International	ISO/IEC 11801 2nd Edition EU Directive 2011/65/EU (RoHS)

CONSTRUCTION

Bare copper wire insulated with foam polyethylene (non-plenum) or foam FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit. The cable is shielded with an overall polyester aluminum foil with stranded tinned copper drain wire and is jacketed with flame-retardant PVC.

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.019 in.
Insulated Conductor Diameter	0.042 in.	0.042 in.	0.035 in.
Cable Diameter	0.235 in.	0.240 in.	0.197 in.
Cable Weight	31 lb./kft.	29 lb./kft.	20 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.

TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	71% nom.	74% nom.	70% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.



TEMPERATURE RATING		
	CMP	CMR
Operation	-20°C to +75°C	-20°C to +75°C
Installation	0°C to +50°C	0°C to +50°C

FLAME RATING	
Non-Plenum	UL 1666, CMR
Plenum	NFPA 262, CMP
Patch	UL 1581, CM, IEC 332-1

600V AWM design | CMR-CMX Outdoor | PSACR nearly 3 times better than the TIA specification

- Superior electrical performance exceeding Category 6 requirements with characterization up to 550MHz, 300 MHz greater than the standard and PSACR nearly 3 times better than TIA specifications
- 600V AWM design for best electrical performance near machines and panels
- Sunlight Resistance II (720 hours) and Oil Resistance I (60°C)
- Weld Spatter resistance, Abrasion resistance up to 50 cycles and pull tension up to 40 lbs.
- Transitions well from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Orange	Orange
Pair-2	White/Green	Green

PART NUMBER	DESCRIPTION	COLOR
11097505	LANmark-LD689 Cat 6 Solid CMR-CMX Outdoor PVC	Teal

TECHNICAL DATA	
Construction Characteristics	
Conductor material	23 AWG Bare Copper
Filler	HDPE Cross Filler
Jacket Material	PVC
Core Tape	Foamed polypropylene
Insulation	HDPE
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.039 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.265 in
Nominal cable weight	30 lb/kft
Length per reel	1000.0 ft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	67%
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Mechanical Characteristics	
Maximum installation tension	15 lb
Usage Characteristics	
Minimum Bending Radius - Install	2.58 in

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

23 AWG solid bare copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair, Four such pairs and a cross filler form the basic unit, enclosed by polypropylene tape contained within an industrial PVC jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801	Category 6
ANSI/TIA-568-C.2	Category 6

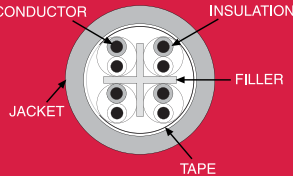
ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C
Weld Spatter Resistance	Internal	Yes

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.

Abrasion	UL2556 7.10	50 cycles/1.5 lb. load
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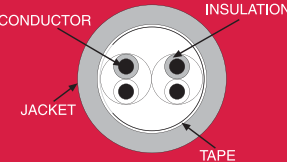


600V AWM design | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with Weld Spatter resistance and pull tension up to 40 lbs
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Green	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBER	DESCRIPTION	COLOR
11089968	LANmark-MD535 Cat 5e Solid 2-Pr TPE	Teal



TECHNICAL DATA	
Construction Characteristics	
Conductor material	24 AWG Tinned Copper
Jacket Material	TPE
Core Tape	Foamed polypropylene
Insulation	FRPE
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.042 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.24 in
Nominal cable weight	25 lb/kft
Length per reel	1000.0 ft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	68 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	2.58 in

RELATED STANDARDS	
Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS	
International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

24 AWG solid bare copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair, Four such pairs and a cross filler form the basic unit, enclosed by polypropylene tape contained within an industrial PVC jacket.

TRANSMISSION CHARACTERISTICS	
ISO/IEC 11801	Category 5e
ANSI/TIA-568-C.2	Category 5e

ATTRIBUTES	
Description	Method
AWM Style	UL758
Cold Bend	UL444 7.10
Weld Spatter Resistance	Internal (SOP 58.8.12)
	2463 (600V, 80°C)
	-40°C
	Yes

Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.



TEMPERATURE RATING	
Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING	
Listed Type	UL1685, CM
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)

600V AWM design | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type II
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with Weld Spatter resistance and pull tension up to 40 lbs.
- Transitions well from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Green	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11077843	LANmark-MD537 Cat 5e Solid Shielded TPE	Black	1000 ft. Reel
11082683	LANmark-MD537 Cat 5e Solid Shielded TPE	Teal	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Tinned Copper
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper 80% optical coverage
Shielding	Aluminum/Polyester
Core Tape	Polyester
Insulation	Stranded Tinned Copper 7/32

Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.046 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.29 in
Nominal cable weight	44 lb/kft

Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	66 %
Maximum pair to ground unbalance	330 pF/100m
Transfer impedance	Grade 2

Transmission Characteristics	
Skew (max.)	45 ns/100m

Usage Characteristics	
Minimum Bending Radius - Install	2.32 in

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

24 AWG solid tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and four such pairs to form the basic unit, enclosed by polyester tape, and shielded with aluminum/polyester tape (aluminum facing out). Drain wire and 80% optical coverage braid contained within TPE jacket.

TRANSMISSION CHARACTERISTICS

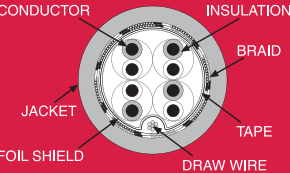
ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e
Coupling Attenuation	Type II
Transfer Impedance	Grade 2

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C
Weld Spatter Resistance	Internal (SOP 58.8.12)	Yes

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.



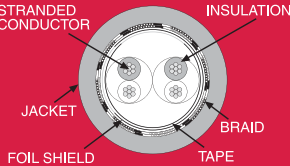


600V AWM design | Cold-bend Performance | Medium-duty Industrial Applications

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type II
- Oil Resistance I (60°C) and Sunlight Resistance I (300 hours)
- Installation pull tension up to 40 lbs.
- Transitions wells from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Orange	Orange	
Pair-2	White/Green	Green	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11086876	LANmark-MD587 Cat 5e 2-Pr Shielded PVC	Teal	1000 ft. Reel



TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	HDPE
Jacket Material	PVC
Braid	Tinned copper 75% optical coverage
Shielding	Aluminum/Polyester
Core Tape	Foamed polypropylene
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.048 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.26 in
Nominal cable weight	34 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	68 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	2.08 in
Cable length rating	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polypropylene tape, an aluminum/polyester tape shield and 38 AWG braid with 75% optical coverage and PVC jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e
Coupling Attenuation	Type II
Transfer Impedance	Grade 2

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.04 inch	TIA 568-C.0	25 lbs.



TEMPERATURE RATING

Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING

Listed Type	UL1666, CMR
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, I (60°C)
Sunlight Resistance	UL444 7.12, Yes (300 hrs)

600V AWM design | Cold-bend Performance | Medium-duty Industrial Applications

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type II
- Oil Resistance I (60°C) and Sunlight Resistance I (300 hours)
- Installation pull tension up to 40 lbs.
- Transitions wells from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Orange	Orange	
Pair-2	White/Green	Green	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11086890	LANmark-MD585 Cat 5e 2-Pr PVC	Teal	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	HDPE
Jacket Material	PVC
Core Tape	Polyester
Filler	Polypropylene
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.04 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.24 in
Nominal cable weight	26 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	66 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	0.96 in
Cable length rating	83 m

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2
	UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polyester tape, with PVC jacket.

TRANSMISSION CHARACTERISTICS

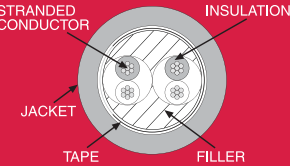
ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.04 inch	TIA 568-C.0	25 lbs.



600V AWM design | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Oil Resistance I (60°C) and Sunlight Resistance I (300 hours)
- Installation pull tension up to 40 lbs.
- Transitions wells from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11078313	LANmark-MD540 Cat 5e PVC	Black	1000 ft. Reel
11082152	LANmark-MD540 Cat 5e PVC	Teal	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	HDPE
Jacket Material	PVC
Core Tape	Polyester
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.04 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.25 in
Nominal cable weight	34 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	67 %
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	1 in
Cable length rating	83 m

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and four such pairs to form the basic unit, enclosed by polyester tape, with PVC jacket.

TRANSMISSION CHARACTERISTICS

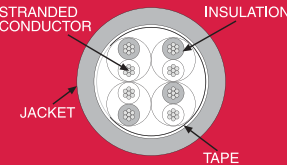
ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Cold Bend	UL444 7.10	-40°C
Weld Spatter Resistance	Internal (SOP 58.8.12)	Yes

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.



600V AWM design | Cold-bend Performance | Suitable for the most demanding, continuous-motion Industrial Applications

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type II
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Orange	Orange	
Pair-2	White/Green	Green	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11078417	LANmark-HD541 Cat 5e High Flex 2-Pr Shielded TPE	Black	1000 ft. Reel
11084695	LANmark-HD541 Cat 5e High Flex 2-Pr Shielded TPE	Red	1000 ft. Reel
11083162	LANmark-HD541 Cat 5e High Flex 2-Pr Shielded TPE	Teal	1000 ft. Reel



RELATED STANDARDS

Low Voltage EU Directive 2014/35/EU, CE Approved
RoHS EU Directive 2011/65/EU
PoE+ Type 2 (802.3at)

STANDARDS

International ISO/IEC 11801
National ANSI/TIA-568-C.2
UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polypropylene tape, an aluminum/polyester tape shield and 38 AWG braid with 75% optical coverage and TPE jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801
ANSI/TIA-568-C.2
Coupling Attenuation IEC 61156-5
Transfer Impedance IEC 61156-5
Category 5
Category 5e
Type II
Grade 2

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.

Abrasion	UL2556 7.10	75 cycles/1.5 lb. load
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TEMPERATURE RATING

Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING

Listed Type	UL1685, CM
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)





600V AWM design | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type II
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Transitions well from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Blue	Blue	
Pair-2	White/Green	Orange	
Pair-3	White/Green	Green	
Pair-4	White/Brown	Brown	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11077860	LANmark-HD542 Cat 5e High Flex Shielded TPE	Black	1000 ft. Reel
11082239	LANmark-HD542 Cat 5e High Flex Shielded TPE	Teal	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper - 75% optical coverage
Shielding	Aluminum/Polyester
Core Tape	Foamed polypropylene
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.046 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.3 in
Nominal cable weight	46 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	66 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	1.2 in
Cable length rating	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2
	UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with FRPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basicunit, enclosed by foamed polypropylene, with TPE jacket.

TRANSMISSION CHARACTERISTICS

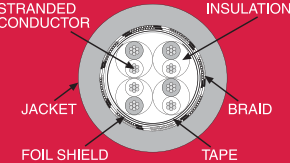
ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e
Coupling Attenuation	Type II
Transfer Impedance	Grade 2

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load



LANmark™ -HD538
CAT 5e | UTP | TPE
2-PAIR STRANDED 24 AWG

Heavy-Duty, highly flexible cable suitable for harsh industrial environments including motion equipment and chemical exposure.

600V AWM design | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Orange	Orange	
Pair-2	White/Green	Green	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11088835	LANmark-HD538 Cat 5e High Flex 2-Pr TPE	Teal	1000 ft. Reel



RELATED STANDARDS

Low Voltage EU Directive 2014/35/EU, CE Approved
RoHS EU Directive 2011/65/EU
PoE+ Type 2 (802.3at)

STANDARDS

International ISO/IEC 11801
National ANSI/TIA-568-C.2
UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with FRPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by foamed polypropylene, with TPE jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801 Category 5
ANSI/TIA-568-C.2 Category 5e

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	FRPE
Jacket Material	TPE
Core Tape	Foamed polypropylene
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.041 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.24 in
Nominal cable weight	26 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	66 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	1.2 in
Packaging	Reel
Cable length rating	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes



LANmark™ -HD538
CAT 5e | UTP | TPE
2-PAIR STRANDED 24 AWG



TEMPERATURE RATING	
Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING	
Listed Type	UL1685, CM
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)





600V AWM design | Durable TPE Jacket | Performance in a High-Vibration Environment

- Fully compliant to Category 5e requirements
- 600V AWM design for best electrical performance near machines and panels
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Green	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11088836	LANmark-HD539 Cat 5e High Flex TPE	Teal	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	FRPE
Jacket Material	TPE
Core Tape	Polyester
Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.041 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.25 in
Nominal cable weight	32 lb/kft
Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	67 %
Maximum pair to ground unbalance	330 pF/100m
Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2
Usage Characteristics	
Minimum Bending Radius - Install	1.0 in
Packaging	Reel
Cable length rating	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2
	UL 444

CONSTRUCTION

24 AWG stranded tinned copper wire insulated with FRPE. Two insulated conductors twisted together to form a pair and four such pairs to form the basic unit, enclosed by polyester tape, with TPE jacket.

TRANSMISSION CHARACTERISTICS

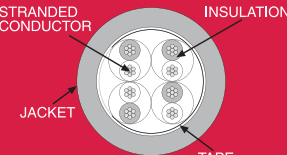
ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):

Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load



TEMPERATURE RATING

Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING

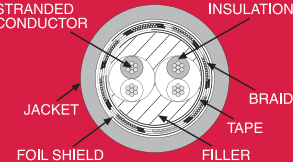
Listed Type	UL1685, CM
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)

Designed to meet the requirements of the Profinet Type B and C standards | Durable TPE Jacket

- Fully compliant to Category 5e and PROFINET B&C requirements
- PROFINET Power Limited Tray Cable (PLTC) Listing
- 600V AWM design for best electrical performance near machines and panels
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type I
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White	Blue
Pair-2	Yellow	Orange

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11081968	LANmark-HD547 Profinet High Flex 2-Pr Shielded TPE	Green	1000 ft. Reel



TECHNICAL DATA	
Conductor material	22 AWG Stranded Tinned Copper (19/.0058)
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper - 75% optical coverage
Shielding	Aluminum/Polyester/Aluminum
Core Tape	Polyester
Filler	Polypropylene

Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.057 in
Average jacket thickness	0.04 in
Minimum jacket thickness at any point	0.032 in
Cable diameter (Nominal)	0.31 in
Nominal cable weight	46 lb/kft

Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity propagation	66 %
Maximum pair to ground unbalance	330 pF/100m

Transmission Characteristics	
Skew (max.)	45 ns/100m

Usage Characteristics	
Profinet Type	B & C
Minimum Bending Radius - Install	2.48 in
Cold Bend	-40 °C
Weld spatter resistance	Yes

RELATED STANDARDS

Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS

International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

22 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polyester tape and shielded with a 75% optical coverage braid and an aluminum/polyester/aluminum tape contained within a TPE jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801	Category 5
ANSI/TIA-568-C.2	Category 5e
Coupling Attenuation	Type I
Transfer Impedance	Grade 2

ATTRIBUTES

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.

Abrasion	UL2556 7.10	75 cycles/1.5 lb. load
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TEMPERATURE RATING

Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING

Listed Type	UL1685, CM
Listed Type	UL444, CMX Outdoor
Listed Type	UL13/UL2250, PLTC/ITC
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)



600V AWM design | Durable TPE jacket | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 6A requirements and 10 Gigabit Ethernet
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type I
- 600V AWM design for best electrical performance near machines and panels
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75 degree C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Transitions well from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE		
Pair-1	White/Blue	Blue
Pair-2	White/Green	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11081386	LANmark-HD545 Cat 6A 24 AWG High Flex Shielded TPE	Teal	1000 ft. Reel
11094167	LANmark-HD545 Cat 6A 24 AWG High Flex Shielded TPE	Black	1000 ft. Reel

TECHNICAL DATA	
Conductor material	24 AWG Stranded Tinned Copper (7/32)
Filler	HDPE Cross Filler
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper - 75% optical coverage
Shielding	Aluminum/Polyester/Aluminum
Core Tape	Polyester

Dimensional Characteristics	
Insulated conductor diameter (Nominal)	0.045 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.322 in
Nominal cable weight	48 lb/kft

Electrical Characteristics	
Mutual capacitance	5.6 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	4 %
Nominal velocity propagation	67 %
Maximum pair to ground unbalance	330 pF/100m

Transmission Characteristics	
Skew (max.)	45 ns/100m
Insertion loss de-rating factor	1.2

Usage Characteristics	
Minimum Bending Radius - Install	2.58 in
Cable length rating	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

RELATED STANDARDS	
Low Voltage	EU Directive 2014/35/EU, CE Approved
RoHS	EU Directive 2011/65/EU
PoE+	Type 2 (802.3at)

STANDARDS	
International	ISO/IEC 11801
National	ANSI/TIA-568-C.2 UL 444

CONSTRUCTION

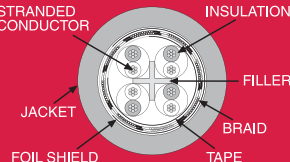
24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair. Four such pairs and a cross filler form the basic unit, enclosed by polyester tape and shielded with a 75% optical coverage braid and aluminum/polyester/aluminum tape contained within a TPE jacket.

TRANSMISSION CHARACTERISTICS	
ISO/IEC 11801	Category 6A
ANSI/TIA-568-C.2	Category 6A
Coupling Attenuation	Type I
Transfer Impedance	Grade 2

ATTRIBUTES		
Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain 10x OD	1 million cycles
Flex Life	Trailing Chain 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.16 inch	TIA 568-C.0	25 lbs.

Abrasion	UL2556 7.10	75 cycles/1.5 lb. load
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TEMPERATURE RATING	
Operation	-40 to 80 °C
Installation	-20 to 80 °C
Storage	-40 to 80 °C

RATING	
Listed Type	UL1666, CMR
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)



600V AWM design | Durable TPE Jacket | Cold-bend Performance | Resistance to Oil, Weld Spatter and Sunlight

- Fully compliant to Category 6A requirements and 10 Gigabit Ethernet
- Small diameter with 26AWG conductor for optimal connectivity
- Superior protection against electromagnetic noise with foil and braid shielding, Transfer Impedance Grade 2 and Coupling Attenuation Type I
- 600V AWM design for best electrical performance near machines and panels
- 10 million flex cycles for continuous motion and robotic applications with durable TPE jacket and stranded conductors
- Oil Resistance II (75°C) and Sunlight Resistance II (720 hours)
- Rugged industrial design with high Abrasion resistance, Weld Spatter resistance and pull tension up to 40 lbs.
- Transitions well from indoor to outdoor environments with CMR and CMX outdoor listing
- Suitable for cable tray installations

COLOR CODE			
Pair-1	White/Blue	Blue	
Pair-2	White/Green	Orange	
Pair-3	White/Green	Green	
Pair-4	White/Brown	Brown	

PART NUMBER	DESCRIPTION	COLOR	PACKAGING
11095446	LANmark-HD637 Cat 6A 26 AWG High Flex Shielded TPE	Teal	1000 ft. Reel
11097643	LANmark-HD637 Cat 6A 26 AWG High Flex Shielded TPE	Black	1000 ft. Reel



RELATED STANDARDS

Low Voltage
RoHS
PoE+

EU Directive 2014/35/EU, CE Approved
EU Directive 2011/65/EU
Type 2 (802.3at)

STANDARDS

International
National

ISO/IEC 11801
ANSI/TIA-568-C.2
UL 444

CONSTRUCTION

26 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair. Four such pairs and a cross filler form the basic unit, enclosed by polypropylene tape and shielded with an aluminum/polyester tape and 75% optical coverage braid contained within a TPE jacket.

TRANSMISSION CHARACTERISTICS

ISO/IEC 11801
ANSI/TIA-568-C.2
Coupling Attenuation
Transfer Impedance

IEC 61156-5
IEC 61156-5

Category 6A
Category 6A
Type I
Grade 2

ATTRIBUTES

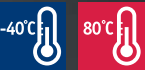
Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	Trailing Chain > 10x OD	1 million cycles
Flex Life	Trailing Chain > 20x OD	10 million cycles
Flex Life	Torsion (+/- 270°)	3 million cycles

Installation Pull Tension (Max):
Bend Radius: > 3 inch
Bend Radius: > 1.16 inch

Internal
TIA 568-C.0

40 lbs.
25 lbs.

Abrasion
UL2556 7.10
75 cycles/1.5 lb. load



TEMPERATURE RATING

Operation	-40 to 80°C
Installation	-20 to 80°C
Storage	-40 to 80°C

RATING

Listed Type	UL1666, CMR
Listed Type	UL444, CMX Outdoor
Oil Resistance	UL1277 11.2, II (75°C)
Sunlight Resistance	UL444 7.22, Yes (720 hrs)





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Quality is in the details.
Always.

When you choose a Berk-Tek fiber optic cable, you can be sure of performance excellence through engineered innovation. Cabling options include the compact and rugged Micro Data Center Plenum (MDP) and High Density Distribution Cable (ACP) as well as Adventum® indoor/outdoor cable, ArmorTek™ interlocking armor, and Premise Distribution constructions. All constructions feature our optimized GIGAlite™ optical fiber, which is engineered to deliver maximum reach and power budget.

Product Icon Key



Maximum Fiber Count. This is the maximum number of fibers available in a particular cable construction.



The lowest operating temperature for the cable design. This is a performance rating, and under no circumstances should a cable be installed in an environment where the temperature could fall below the minimum operating temperature. For reference; -40°C = -40°F and -20°C = -4°F.



The maximum operating temperature for the cable design. This is a performance rating, and under no circumstances should a cable be placed in an environment where the temperature could exceed the maximum operating temperature. For reference; 75°C = 167°F and 90°C = 194°F.



PEP (Product Environmental Profile)
Ecopassports fulfill all LEED requirements for Environmental Product Declarations (EPDs) as they conform to ISO 14025 and follow EN 15804. PEP is an industry-wide organization which runs a program to provide Type III Environmental Product Declaration (EPD) for electrical, electronic, and HVAC products according to ISO 14025. Within the PEP association, EPDs are called PEP Ecopassports®. PEPs are product-specific EPDs and are valued as one full product towards LEED credit.

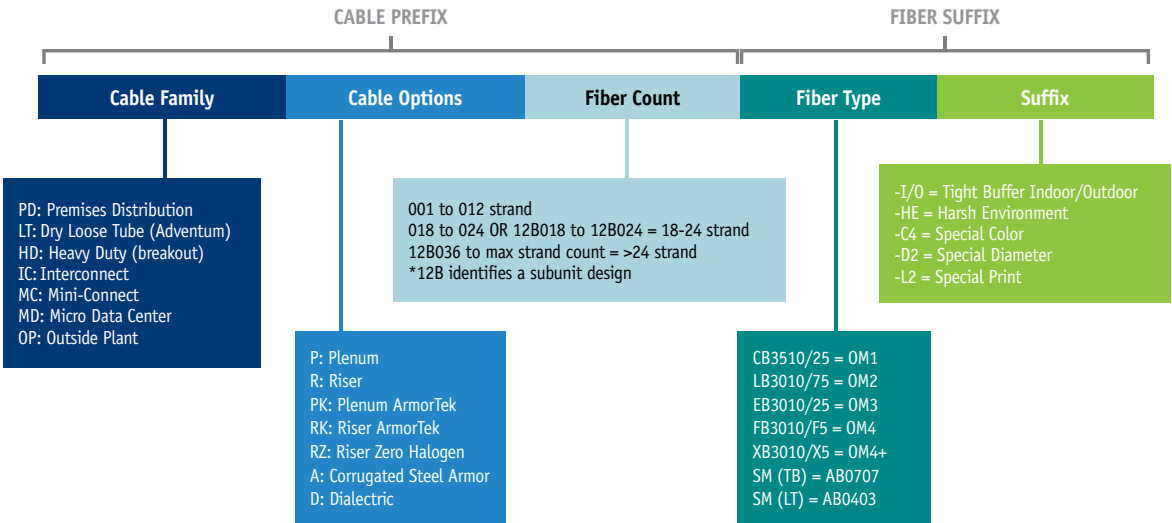


HPD (Heath Product Declaration) is an open standard that contains a standardized format and instructions for reporting a product's contents and its related Health information. This is in contrast to a PEP or EPD, which quantifies and reports the product's environmental impact. HPDs can contribute towards LEED points.

Fiber Optic Cable Part Numbering System

Berk-Tek's Fiber Optic Cable part numbers are composed of two basic units, the Cable Prefix and the Fiber Suffix. Throughout this catalog fiber part number prefixes for each cable type are listed in the second column of the Technical Data tables. To accurately build your fiber part number, select the correct prefix and suffix.

Sample Part Number: **PDPK012EB3010/25-I/O**





Direct Termination | Up to 144 Fibers | Plenum Rated | Reduced Diameter Constructions

- Flexible, small-diameter, 900 μm tight-buffered, all dielectric construction
- High tensile strength and small-diameter design
- Six to 144-count fiber construction designs ideal for horizontal and backbone installation
- Single-mode, multimode and hybrid designs available
- Cost-saving design, easy to install and terminate
- Provides for greater pulling distances, reducing installation time
- Broad design selection allows for mix and match of fiber components to specific networking applications
- Available with Armor-Tek™ Interlocking Armor
- Suitable for conduit or in-tray applications

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
6	PDP006	0.180	4.6	12	18	2.7	6.9	1.8	4.6	100	445	30	133
12	PDP012	0.210	5.3	18	26	3.2	8.0	2.1	5.3	100	445	30	133
24	PDP024	0.305	7.7	41	61	4.6	11.6	3.1	7.7	150	667	45	200
48	PDP12B048	0.558	14.2	136	202	8.4	21.3	5.6	14.2	600	2670	180	800
72	PDP12B072	0.671	17.0	212	316	10.1	25.6	6.7	17.0	600	2670	180	800
96	PDP12B096	0.847	21.5	313	466	12.7	32.3	8.5	21.5	600	2670	180	800
144	PDP12B144	0.896	22.8	318	474	13.4	34.1	9.0	22.8	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

SPECIAL OPTIONS

Fiber in a box packaging optional for 6 and 12 fiber constructions.

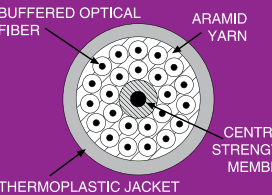
STANDARDS

North American NFPA 130
Telcordia GR-409
ANSI/ICEA S-83-596
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

900 μm buffered fibers surrounded by aramid yarns.
Cables with >24 fibers feature 12 fiber subunits stranded around a dielectric central member. Sheathed using a next-generation high performance riser-rated polymer.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive						1 GbE	10 GbE	40 GbE	100 GbE	
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive						1 GbE	10 GbE	40 GbE	100 GbE	
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1						1 GbE	10 GbE	40 GbE	100 GbE	
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
	PDP
Operation	-20°C to +75°C
Storage	-40°C to +85°C
Installation	0°C to +75°C
Sample Part Number: PDP024FB3010/F5	

FLAME RATING	
Plenum	OFNP/FT-6



Direct Termination | Up to 144 Fibers | Riser Rated | Reduced Diameter Constructions

- Flexible, small-diameter, 900 µm tight-buffered, all dielectric construction
- High tensile strength and small-diameter design
- Six to 144-count fiber construction designs ideal for horizontal and backbone installation
- Single-mode, multimode and hybrid designs available
- Also available in low-smoke zero-halogen design
- Cost-saving design, easy to install and terminate
- Provides for greater pulling distances, reducing installation time
- Broad design selection allows for mix and match of fiber components to specific networking applications
- Available with Armor-Tek™ Interlocking Armor
- Suitable for conduit or in-tray applications

RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
6	PDR006	0.224	5.7	19	29	3.4	8.5	2.2	5.7	150	667	45	200
12	PDR012	0.246	6.2	25	37	3.7	9.4	2.5	6.2	150	667	45	200
24	PDR024	0.335	8.5	47	70	5.0	12.8	3.4	8.5	150	667	45	200
48	PDR12B048	0.590	15.0	131	196	8.9	22.5	5.9	15.0	600	2670	180	800
72	PDR12B072	0.732	18.6	203	301	11.0	27.9	7.3	18.6	600	2670	180	800
96	PDR12B096	0.880	22.4	291	433	13.2	33.5	8.8	22.4	600	2670	180	800
144	PDR12B144	0.940	23.9	310	461	14.1	35.8	9.4	23.9	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

SPECIAL OPTIONS

Fiber in a box packaging optional for 6 and 12 fiber constructions.

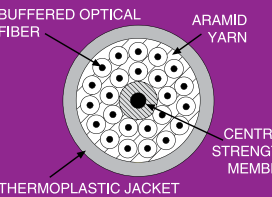
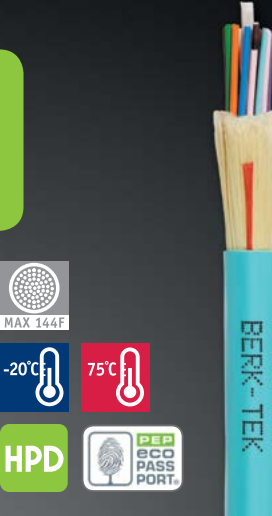
STANDARDS

North American Telcordia GR-409
 ANSI/ICEA S-83-596
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

900 µm buffered fibers surrounded by aramid yarns. Cables with >24 fibers feature 12 fiber subunits stranded around a dielectric central member. Sheathed using a next-generation high performance riser-rated polymer.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive						1 GbE	10 GbE	40 GbE	100 GbE	
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive						1 GbE	10 GbE	40 GbE	100 GbE	
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1						1 GbE	10 GbE	40 GbE	100 GbE	
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
	PDR
Operation	-20°C to +75°C
Storage	-40°C to +85°C
Installation	-20°C to +75°C
Sample Part Number: PDR024FB3010/F5	
FLAME RATING	
Riser	OFNR/FT-4





Indoor/Outdoor | 900 µm tight buffer | Water blocked | Sunlight Resistant

- Plenum rating enables installations to go directly from outside plant into building with no transition point requirement
- High tensile strength, crush-resistant and small-diameter all dielectric design
- Ready for direct termination, no fan-out kits are needed
- Available with Armor-Tek™ Interlocking Armor
- Fully water-blocked core or subunits using all dry technology
- Fungus and sunlight resistant
- Designed for outside plant installation in conduit under the frost line (non-aerial lashed)
- Greater pulling distances possible due to high tensile strength
- Low cable plant maintenance and ease of installation
- Flexible, reduced cable diameter with easy access to tight buffer fibers
- Suitable for in-tray applications

SPECIAL OPTIONS

Fiber in a box packaging optional for 6 and 12 fiber constructions.

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
6	PDP006-I/O	0.180	4.6	12	18	2.7	6.9	1.8	4.6	100	445	30	133
12	PDP012-I/O	0.210	5.3	18	26	3.2	8.0	2.1	5.3	100	445	30	133
24	PDP024-I/O	0.305	7.7	41	61	4.6	11.6	3.1	7.7	150	667	45	200
48	PDP12B048-I/O	0.558	14.2	136	202	8.4	21.3	5.6	14.2	600	2670	180	800
72	PDP12B072-I/O	0.671	17.0	212	316	10.1	25.6	6.7	17.0	600	2670	180	800
96	PDP12B096-I/O	0.847	21.5	313	466	12.7	32.3	8.5	21.5	600	2670	180	800
144	PDP12B144-I/O	0.896	22.8	318	474	13.4	34.1	9.0	22.8	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

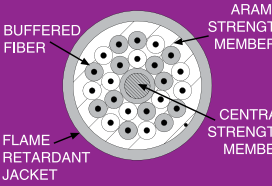
STANDARDS

North American NFPA 130
Telcordia GR-409
ANSI/ICEA S-104-696
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

900 µm buffered fibers surrounded by water-blocking aramid yarns. Cables with >24 fibers feature 12 fiber subunits stranded around a dielectric central member with water-blocking yarns. Sheathed using a next-generation high performance riser-rated polymer.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
	PDP-I/O
Operation	-40°C to +75°C
Storage	-40°C to +85°C
Installation	0°C to +75°C
Sample Part Number: PDP024FB3010/F5	

FLAME RATING	
Plenum	OFNP/FT-6



All dielectric | 2-144 tight buffered (900 μm) fibers | Dry water blocked cable core

- Designed for use in airports, automotive plants, and other harsh industrial petrochemical environments
- Plenum grade thermoplastic jacket, resistant to corrosive chemicals, fuels, and de-icing agent
- Suitable for installation in conduits, ducts, or cable trays
- 2 to 144 count fiber construction plenum designs ideal for horizontal and backbone installation
- Flexible, small diameter, 900 μm tight buffered construction
- High tensile strength and small diameter design
- Single-mode, multimode, and hybrid designs available
- Other standard colors available
- Available with Armor-Tek™ Interlocking Armor
- Cost-saving design, easy to install and terminate
- Provides for greater pulling distances, reducing installation time
- Broad design selection allows for mix and match of fiber components to specific networking applications
- One cable design meeting all structured cabling network communications applications

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
2	ICP002-HE(BLA)	0.170	4.6	12	18	2.6	6.5	1.7	4.3	150	660	45	198
4	ICP004-HE(BLA)	0.170	4.8	13	19	2.6	7.2	1.7	4.8	150	660	45	198
6	PDP006-HE(BLA)	0.208	5.3	18	26	3.1	7.9	2.1	5.3	300	1335	90	400
12	PDP012-HE(BLA)	0.255	6.5	30	44	3.8	9.7	2.6	6.5	300	1335	90	400
24	PDP024-HE(BLA)	0.287	7.3	36	53	4.3	10.9	2.9	7.3	300	1335	90	400
48	PDP12B048-HE(BLA)	0.580	14.7	135	201	8.7	22.1	5.8	14.7	600	2670	180	800
72	PDP12B072-HE(BLA)	0.701	17.8	206	307	10.5	26.7	7.0	17.8	600	2670	180	800
96	PDP12B096-HE(BLA)	0.847	21.5	313	466	12.7	32.3	8.5	21.5	800	3559	240	1068
144	PDP12B144-HE(BLA)	0.896	22.8	318	474	13.4	34.1	9.0	22.8	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

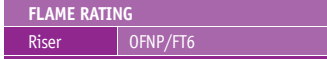
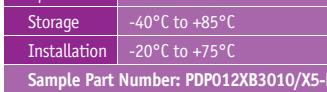
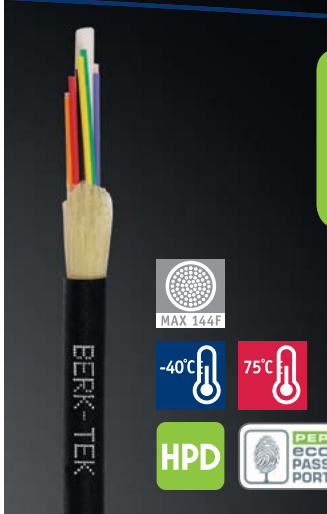
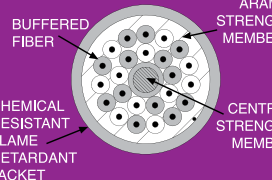
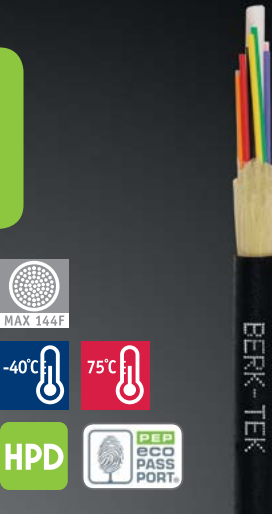
STANDARDS

North American ANSI/ICEA S-104-696
ANSI/TIA-568-C.3
NFPA 130, Telcordia GR-409
EN 50173
ISO/IEC 11801

CONSTRUCTION

900 μm buffered fibers, water-blocking aramid yarns, and a chemical resistant next-generation high-performance polymer outer jacket. PDP-HE designs use a dielectric central member. 36-144 fiber designs use 12-fiber subunits.

TECHNICAL DATA								Distance (meters)			
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)					
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



900 μm or 600 μm tight buffer | Plenum Rated

- 1 to 4-count fiber construction designs ideal for horizontal installation
- Space-saving design allows for dense patchcord cable installations
- Flexible, small-diameter, 900 μm tight-buffered construction in the ICP and MCP Series
- Microconnect reduced diameter cables available with 600 μm tight buffers
- NCP and MCP Series designs are compatible with small form factor (sff) connectors
- High tensile strength and small-diameter design
- Single-mode, multimode and hybrid designs available
- Cost-saving design, easy to install and terminate
- Broad design selection allows for mix and match of fiber components to specific networking applications
- Suitable for conduit or in tray installations

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
1	NCP001	0.047	1.2	0.9	1.4	0.7	1.8	0.5	1.2	25	111	8	33
2 Duplex	NCPOX0	0.047 x 0.105	1.2 x 2.7	1.9	2.8	1.6	4.0	1.1	2.7	20	89	7	31
1	MCPO01	0.063	1.6	2	3	0.9	2.4	0.6	1.6	25	111	8	33
2	MCPO02	0.114	2.9	5	7	1.7	4.3	1.1	2.9	50	220	15	66
2 Duplex	MCPOX0	0.063 x 0.130	1.6 x 3.3	4	6	2.0	5.0	1.3	3.3	25	111	8	33
1	ICP001-D4 (2.0 mm)	0.079	2.0	2	3	1.2	3.0	0.8	2.0	25	111	8	33
2 Duplex	ICPOX0-D4 (2.0 mm)	0.079 x 0.162	2.0 x 4.1	7	11	2.4	6.2	1.6	4.1	25	111	8	33
1	ICP001	0.116	2.9	6	8	1.7	4.4	1.2	2.9	50	220	15	66
2 Duplex	ICPOX0	0.114 x 0.232	2.9 x 5.9	11	16	3.5	8.8	2.3	5.9	50	220	15	66
2	ICP002	0.170	4.3	12	18	2.6	6.5	1.7	4.3	100	445	30	133
4	ICP004	0.170	4.3	13	20	2.6	6.5	1.7	4.3	100	445	30	133

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

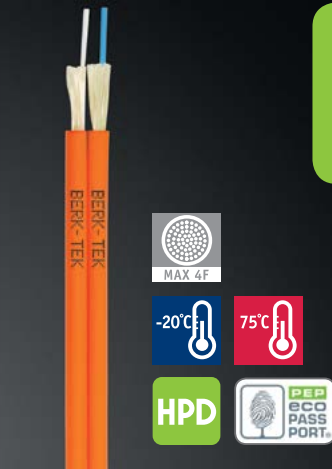
STANDARDS

North American NFPA 130
Telcordia GR-409
ICEA S-83-596
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

ICP and MCP utilize 900 μm buffered fibers surrounded by aramid yarns. NCP featured inked 250 μm fibers to maximize available space. Sheathed using a next-generation high performance plenum polymer.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING

Operation -20°C to +75°C
Storage -40°C to +85°C
Installation 0°C to +75°C

Sample Part Number: ICPOX0LB3010/75

FLAME RATING

Plenum OFNP/FT-6

900 μm tight buffer | Riser Rated | Low-smoke zero-halogen (LSZH) available

- 1 to 4-count fiber construction designs ideal for horizontal installations
 - Space-saving design allows for dense patchcord cable installations
 - Flexible, small-diameter, 900 μm tight-buffered construction
 - Microconnect reduced diameter cables available with 600 μm tight buffers
- MCR Series designs are compatible with small form factor (sff) connectors
 - High tensile strength and small-diameter design
 - Single-mode, multimode and hybrid designs available
 - Cost-saving design, easy to install and terminate
 - Broad design selection allows for mix and match of fiber components to specific networking applications
 - Suitable for conduit or in tray installations
 - Available with ArmorTek™ Interlocking Armor

RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
1	MCR001	0.063	1.6	2	3	0.9	2.4	0.6	1.6	25	111	8	33
2 Duplex	MCR0X0	0.063 x 0.130	1.6 x 3.3	3	5	0.9	2.4	0.6	1.6	25	111	8	33
2 Round	MCR002	0.114	2.9	5	7	1.7	4.3	1.1	2.9	50	220	15	66
1	ICR001-(D4)	0.079	2.0	3	4	1.2	3.0	0.8	2.0	25	111	8	33
2 Duplex	ICR0X0-(D4)	0.079 x 0.162	2.0 x 4.1	5	8	1.2	3.0	0.8	2.0	25	111	8	33
1	ICR001	0.114	2.9	5	7	1.7	4.3	1.1	2.9	50	220	15	66
2 Duplex	ICR0X0	0.114 x 0.232	2.9 x 5.9	10	15	1.7	4.3	1.1	2.9	50	220	15	66
2 Round	ICR002	0.187	4.8	12	17	2.8	7.1	1.9	4.8	100	445	30	133
4	ICR004	0.187	4.8	12	18	2.8	7.1	1.9	4.8	100	445	30	133

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

STANDARDS

North American

Telcordia GR-409
ICEA S-83-596

European

EN 50173

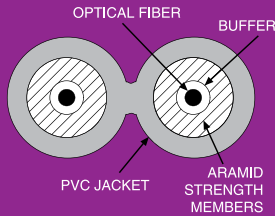
International

ISO/IEC 11801

CONSTRUCTION

900 μm buffered fibers surrounded by aramid yarns.
Sheathed using a next-generation high performance riser-rated polymer.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
	MCR or ICR
Operation	-20°C to +75°C
Storage	-40°C to +85°C
Installation	-10°C to +70°C
Sample Part Number: ICR0X0LB3010/75	

FLAME RATING	
Riser	OFNR/FT-4

2-36 Fibers – Plenum | Rugged construction for harsh environments | Tape wrapped dry core

- Multimode, Single-mode, and GIGALite™ fibers
 - High tensile strength, crush resistant
 - All-dielectric, aluminum or steel interlock armored designs available
 - Water-blocked indoor/outdoor and harsh environment designs available
 - High tensile strength provides for greater pulling distances
- Ease of installation
 - Broad design selection allows for mix and match of fiber components to specific networking applications
 - Suitable for conduit or in-tray installations
 - Low cable plant maintenance
 - Armor option adds crush resistance and protection from rodent attacks

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
2	HDP002	0.200	5.1	13	20	3.0	7.6	2.0	5.1	150	660	45	198
4	HDP004	0.264	6.7	35	53	4.0	10.1	2.6	6.7	150	660	45	198
6	HDP006	0.312	7.9	56	83	4.7	11.9	3.1	7.9	150	660	45	198
12	HDP012	0.474	12.0	124	185	7.1	18.1	4.7	12.0	300	1320	90	396
24	HDP024	0.556	14.1	164	245	8.3	21.2	5.6	14.1	600	2640	180	792
36	HDP036	0.641	16.3	205	305	9.6	24.4	6.4	16.3	1000	4448	300	1320

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

STANDARDS

North American

Telcordia GR-409
ANSI/TIA-568-C.3

European

EN 50173

International

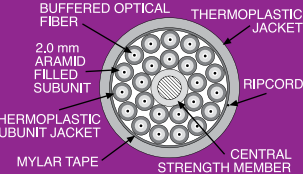
ISO/IEC 11801

CONSTRUCTION

Each cable utilizes individual subunits containing a single 900 µm tight buffered fiber, surrounded by aramid yarns. Subunits are stranded around a dielectric central strength member, wrapped with mylar tape, and sheathed with a high-performance next-generation plenum thermoplastic jacket.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000

TIGHT BUFFER



TIGHT BUFFER



TEMPERATURE RATING	
Operation	-20°C to +75°C
Storage	-40°C to +85°C
Installation	-20°C to +75°C
Sample Part Number: HDP006AB0707	

FLAME RATING	
Plenum	OFNP/FT-6

Heavy Duty Breakout Cable
Riser Rated

Designed for installation in horizontal, industrial and other harsh environments where additional strength and fiber protection is required.

SUITABLE FOR INDUSTRIAL APPLICATIONS

ARMORED OPTION AVAILABLE

Heavy Duty Breakout Cable
Riser Rated

2-48 Fibers – Riser | Rugged construction for harsh environments | Tape wrapped dry core

- Multimode, Single-mode, and GIGALite™ fibers
 - High tensile strength, crush resistant
 - All-dielectric, aluminum or steel interlock armored designs available
 - Water-blocked indoor/outdoor designs available
 - High tensile strength provides for greater pulling distances
- Ease of installation
 - Broad design selection allows for mix and match of fiber components to specific networking applications
 - Suitable for conduit or in-tray installations
 - Low cable plant maintenance
 - Armor option adds crush resistance and protection from rodent attacks

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

STANDARDS

North American Telcordia GR-409
 ANSI/TIA-568-C.3
European EN 50173
International ISO/IEC 11801

CONSTRUCTION


Each cable utilizes individual subunits containing a single 900 µm tight buffered fiber, surrounded by aramid yarns. Subunits are stranded around a dielectric central strength member, wrapped with mylar tape, and sheathed with a high-performance next-generation riser thermoplastic jacket.


TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000


RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
2	HDR002	0.268	6.8	32	48	4.0	10.2	2.7	6.8	150	660	45	198
4	HDR004	0.268	6.8	34	50	4.0	10.2	2.7	6.8	150	660	45	198
6	HDR006	0.315	8.0	48	72	4.7	12.0	3.2	8.0	150	660	45	198
12	HDR012	0.470	11.9	102	151	7.1	17.9	4.7	11.9	300	1320	90	396
24	HDR024	0.614	15.6	144	214	9.2	23.4	6.1	15.6	600	2640	180	792
36	HDR036	0.699	17.8	177	264	10.5	26.6	7.0	17.8	1000	4445	300	1584
48	HDR048	0.864	21.9	271	403	13.0	32.9	8.6	21.9	1000	4445	300	1584


This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

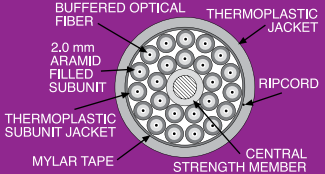
TIGHT BUFFER

MAX 48F



HPD





TIGHT BUFFER

MAX 48F



HPD



TEMPERATURE RATING

Operation	-20°C to +75°C
Storage	-40°C to +85°C
Installation	-20°C to +75°C

Sample Part Number: HDR006AB0707

FLAME RATING

Riser	OFNR/FT-4
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Indoor/Outdoor | Tight buffer | Plenum Rated | Security to FTTx

- Plenum rating enables installations to go directly from outside plant into building with no transition point requirement
- High tensile strength, crush-resistant and small-diameter design
- Tight-buffered fibers are ready for direct termination, no fan-out kits are needed
- All-dielectric design
- Available with Interlocking Armor
- Fully water-blocked core using a dry water-blocking system
- Designed for indoor/outdoor installation
- Designed for greater pulling distances
- Long-term reliability improved over traditional tight buffer premises cables
- Low cable-plant maintenance, ease-of-installation
- Reduced cable diameter, flexible, with easy access to buffer tube and fibers
- Ideal for security camera applications
- Suitable for conduit or in-tray installations

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

STANDARDS

North American NFPA 130
Telcordia GR-409
ANSI/ICEA S-87-640
ANSI/ICEA S-83-596
ANSI/ICEA S-104-696
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

One or two 900 µm tight-buffered fibers in a water-blocked 3.0 mm buffer tube, aramid strength members and a high-performance next-generation plenum thermoplastic jacket.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
1-2	ATP00x	0.235	6.0	26	38	3.5	9.0	2.4	6.0	300	1335	90	400

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.



Indoor/Outdoor | Tight buffer | Riser Rated | Security to FTTx

- Riser rating enables installations to go directly from outside plant into building with no transition point requirement
- High tensile strength, crush-resistant and small-diameter design
- Tight-buffered fibers are ready for direct termination, no fan-out kits are needed
- All-dielectric design
- Available with Interlocking Armor
- Fully water-blocked core using a dry water-blocking system
- Designed for indoor/outdoor installation
- Designed for greater pulling distances
- Long-term reliability improved over traditional tight buffer premises cables
- Low cable-plant maintenance, ease-of-installation
- Reduced cable diameter, flexible, with easy access to buffer tube and fibers
- Ideal for security camera applications
- Suitable for conduit or in-tray installations

RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
1-2	ATRO02	0.235	6.0	22	33	3.5	9.0	2.4	6.0	300	1335	90	400

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

STANDARDS

North American Telcordia GR-409
ANSI/ICEA S-87-640
ANSI/ICEA S-83-596
ANSI/ICEA S-104-696
EN 50173
SO/IEC 11801

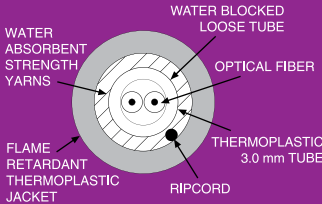
CONSTRUCTION

One or two 900 µm tight-buffered fibers in a water-blocked 3.0 mm buffer tube, aramid strength members and a high-performance next-generation riser thermoplastic jacket.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGAlite	62.5 µm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGAlite	50 µm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGAlite-10	50 µm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGAlite-10FB	50 µm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGAlite-10XB	50 µm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGAlite-10WB	50 µm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



TIGHT BUFFER



TIGHT BUFFER



TEMPERATURE RATING

	ATR
Operation	-40°C to +75°C
Storage	-40°C to +85°C
Installation	-20°C to +60°C

Sample Part Number: ATR002AB0707

FLAME RATING

Riser	OFNR/FT-4
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Indoor/Outdoor | Up to 432 fibers | Plenum Rated | Totally dry construction

- Plenum rating enables installation to go directly from outside plant to riser shaft with no transition points
- Cable core and buffer tubes use dry water-blocking technology
- Interlocking armor designs available
- No transition point required, available in riser and plenum rated
- Greatly reduced installation time and cost because there is no cleaning of gels required for installation
- System grounding requirements are eliminated (for non-armored versions)
- Suitable for conduit or in-tray installations

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	LTP006	0.260	6.6	30	45	3.9	9.9	2.6	6.6	300	1335	90	400
12	LTP012	0.260	6.6	33	49	3.9	9.9	2.6	6.6	300	1335	90	400
24	LTP12B024	0.370	9.4	55	82	5.6	14.1	3.7	9.4	300	1335	90	400
48	LTP12B048	0.370	9.4	56	83	5.6	14.1	3.7	9.4	300	1335	90	400
72	LTP12B072	0.460	11.7	80	119	6.9	17.5	4.6	11.7	600	2670	200	890
144	LTP12B144	0.670	17.0	209	311	10.1	25.5	6.7	17.0	1000	4448	300	1335
432	LTP12B432	0.940	23.9	362	539	14.1	35.8	9.4	23.9	1000	4448	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

STANDARDS

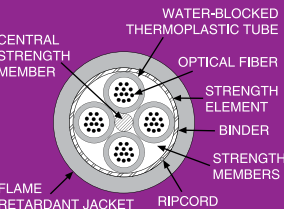
North American Telcordia GR-409
ICEA S-104-696 &
ANSI/ICEA S-87-640
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

Water-blocked color-coded loose tubes containing up to 12, 250 µm, individually colored fibers. Fiber counts over 12 use a dielectric central strength member. Water-blocking strength yarns are covered by a high performance next-generation plenum thermoplastic jacket.

TECHNICAL DATA

Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



LOOSE TUBE



TEMPERATURE RATING

Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-20°C to +60°C

Sample Part Number: LTP12B048FB3010/F5

FLAME RATING

Plenum	OFNP/FT-6
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Place Adventum® anywhere in a network, bypassing the traditional transition points required in most installations, saving significant cost over traditional OSP cables.



Indoor/Outdoor | Up to 432 fibers | Riser or zero-halogen | Totally dry construction

- Riser rating enables installation to go directly from outside plant to riser shaft with no transition points
- Cable core and buffer tubes use dry water-blocking technology
- Interlocking armor designs available
- No transition point required
- Greatly reduced installation time and cost because there is no cleaning of gels required for installation
- System grounding requirements are eliminated (for non-armored versions)
- Suitable for conduit or in-tray installations

RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	LTR006	0.255	6.5	29	44	3.8	9.7	2.6	6.5	300	1335	90	400
12	LTR012	0.255	6.5	30	44	3.8	9.7	2.6	6.5	300	1335	90	400
24	LTR12B024	0.396	10.1	59	88	5.9	15.1	4.0	10.1	300	1335	90	400
48	LTR12B048	0.396	10.1	60	90	5.9	15.1	4.0	10.1	300	1335	90	400
72	LTR12B072	0.467	11.9	81	121	7.0	17.8	4.7	11.9	600	2670	200	890
144	LTR12B144	0.696	17.7	178	265	10.4	26.5	7.0	17.7	1000	4448	300	1335
432	LTR12B432	0.953	24.2	301	447	14.3	36.3	9.5	24.2	1000	4448	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

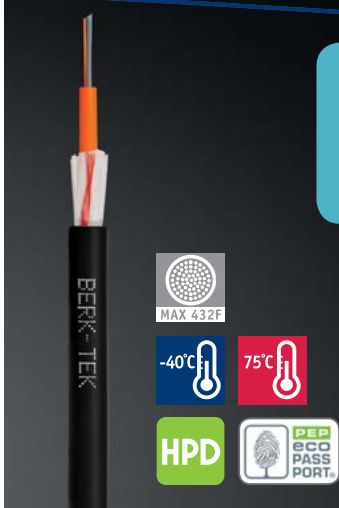
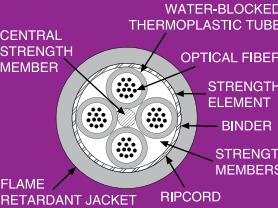
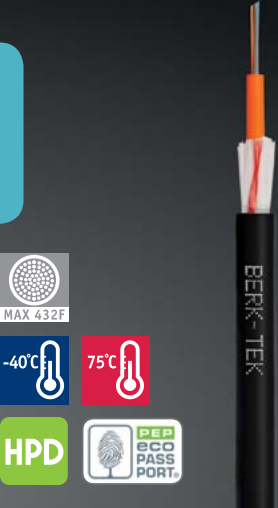
STANDARDS

North American Telcordia GR-409
ICEA S-104-696 &
ANSI/ICEA S-87-640
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

Water-blocked color-coded loose tubes containing up to 12, 250 µm, individually colored fibers. Fiber counts over 12 use a dielectric central strength member. Water-blocking strength yarns are covered by a high performance next-generation riser thermoplastic jacket.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-20°C to +60°C
Sample Part Number: LTR012LB3010/75	

FLAME RATING	
Riser	OFNR/FT-4





Chemical-resistant jacket | Indoor/Outdoor Plenum rated | 2 to 432 count fiber

- Harsh Environment (HE), chemical resistant jacket
- UV resistant outer jacket protects the cable in outside plant installations
- Can be installed directly from outside plant to riser shaft or through plenum spaces; transition points not needed
- Resistant to chemicals, fuels and de-icing agent
- Dry water-blocked, plenum rated, flexible loose tube design of all dielectric construction allows for installation in any outside plant or interior space
- No cleaning of gels required for installation, greatly reducing installation time and cost
- System grounding requirements are eliminated
- Suitable for conduit or in-tray installations

PLENUM (OFNP) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
2	LTP12B002-HE-D4	0.460	11.7	87	129	6.9	17.5	4.6	11.7	600	2670	200	890
4	LTP12B004-HE-D4	0.460	11.7	87	129	6.9	17.5	4.6	11.7	600	2670	200	890
6	LTP12B006-HE-D4	0.460	11.7	87	129	6.9	17.5	4.6	11.7	600	2670	200	890
8	LTP12B008-HE-D4	0.460	11.7	87	129	6.9	17.5	4.6	11.7	600	2670	200	890
12	LTP12B012-HE-D4	0.460	11.7	87	129	6.9	17.5	4.6	11.7	600	2670	200	890
24	LTP12B024-HE-D4	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
36	LTP12B036-HE-D4	0.460	11.7	88	131	6.9	17.5	4.6	11.7	600	2670	200	890
48	LTP12B048-HE-D4	0.460	11.7	88	131	6.9	17.5	4.6	11.7	600	2670	200	890
60	LTP12B060-HE	0.460	11.7	89	132	6.9	17.5	4.6	11.7	600	2670	200	890
72	LTP12B072-HE	0.460	11.7	89	132	6.9	17.5	4.6	11.7	600	2670	200	890
96	LTP12B096-HE	0.532	13.5	126	187	8.0	20.3	5.3	13.5	600	2670	200	890
144	LTP12B144-HE	0.700	17.8	212	315	10.5	26.7	7.0	17.8	1000	4448	300	1335
216	LTP12B216-HE	0.700	17.8	180	269	10.5	26.7	7.0	17.8	1000	4448	300	1335
432	LTP12B432-HE	0.940	23.9	362	539	14.1	35.8	9.4	23.9	1000	4448	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

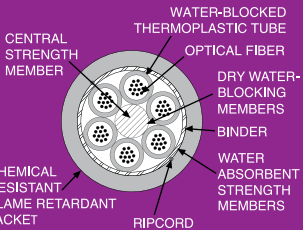
STANDARDS

North American
ICEA S-104-696
ANSI/ICEA S-83-596
ANSI/TIA-568-C.3
NFPA 130
Telcordia GR-409
EN 50173
ISO/IEC 11801

CONSTRUCTION

Chemical resistant water-blocked loose tubes with up to 12 250 µm fibers. Fiber counts >12 use a dielectric central strength member. Water-blocking strength yarns are covered by a chemical resistant plenum thermoplastic jacket.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-20°C to +60°C
Sample Part Number: LTP12B096FB30	

FLAME RATING	
Plenum	OFNP/FT-6

Designed for installation in harsh environments such as direct burial, aerial lashing, conduits and pathways that are subjected to wide temperature variations.



Outdoor, duct, aerial or direct burial | Up to 432 fibers | Riser or low-smoke zero-halogen (LSZH) options

- Gel-filled loose tubes
- Suitable for outside plant, in conduit, aerial lashing and cable tray installations
- Fully water-blocked core using dry water-blocking technology
- All dry constructions available by request
- All-dielectric and corrugated steel armor available for rodent resistance and direct buried installation
- High tensile strength, crush-resistant and small-diameter design allows for installation in small interior spaces
- Single-mode, multimode and hybrid design options available
- Armored designs available: all-dielectric, corrugated steel, interlocking armor aluminum and steel
- Provides for greater pulling distances, reducing installation time

TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
2	OPD002	0.400	10.2	54	81	6.0	15.2	4.0	10.2	400	1779	120	534
4	OPD004	0.400	10.2	55	81	6.0	15.2	4.0	10.2	400	1779	120	534
6	OPD006	0.400	10.2	55	81	6.0	15.2	4.0	10.2	400	1779	120	534
8	OPD008	0.400	10.2	56	84	6.0	15.2	4.0	10.2	400	1779	120	534
12	OPD012	0.400	10.2	57	84	6.0	15.2	4.0	10.2	400	1779	120	534
24	OPDD12B024	0.451	11.5	59	88	6.8	17.2	4.5	11.5	600	2670	180	800
36	OPDD12B036	0.451	11.5	62	93	6.8	17.2	4.5	11.5	600	2670	180	800
48	OPDD12B048	0.451	11.5	65	97	6.8	17.2	4.5	11.5	600	2670	180	800
72	OPDD12B072	0.489	12.4	82	122	7.3	18.6	4.9	12.4	600	2670	180	800
96	OPDD12B096	0.565	14.4	106	158	8.5	21.5	5.7	14.4	800	3560	240	1068
144	OPDD12B144	0.716	18.2	169	252	10.7	27.3	7.2	18.2	1000	4445	300	1335
216	OPDD12B216	0.740	18.8	178	265	11.1	28.2	7.4	18.8	1000	4445	300	1335
432	OPDD12B432	0.991	25.2	316	471	14.9	37.8	9.9	25.2	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

OUTDOOR CONSIDERATIONS

Berk-Tek recommends loose tube cables for outside plant installations, especially if aerially lashed or if the interbuilding conduit system is above the frost line and likely to fill with water.

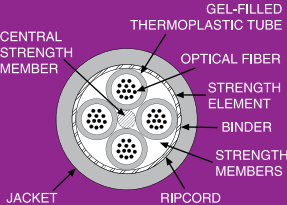
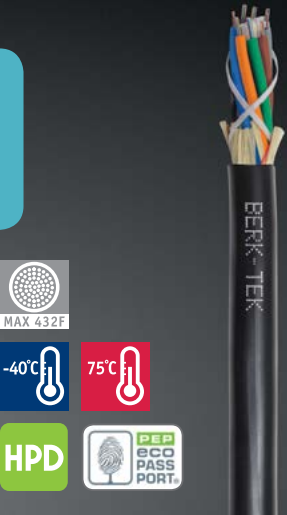
STANDARDS

North American Telcordia GR-20
ANSI/ICEA S-87-640
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

Water-blocked color-coded loose tubes containing up to 12, 250 μm, individually colored fibers. Fiber counts 12 and below use two dielectric strength members parallel to the loose tube. Fiber counts over 12 use a dielectric strength member. Water-blocking strength yarns are covered by a polyethylene jacket.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGAlite	62.5 μm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGAlite	50 μm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGAlite-10	50 μm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGAlite-10FB	50 μm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGAlite-10XB	50 μm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGAlite-10WB	50 μm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-30°C to +60°C

Sample Part Number: OPDD12B096XB3010/X5



Loose Tube Riser Rated | 2 to 144 Fibers | Armored and Low-Smoke Zero-Halogen (LSZH) options

- Gel-filled loose tubes
- Suitable for indoor/outdoor, in conduit, aerial lashing, and cable tray installations
- Fully water-blocked core using dry water-blocking technology
- All dry constructions available by request
- Corrugated steel armor available for rodent resistance and direct buried installation
- High tensile strength, crush-resistant and small-diameter design for installation in small interior spaces
- Single-mode, multimode and hybrid design options
- Armored designs available: corrugated steel, interlocking armor aluminum and steel
- Provides for greater pulling distances, reducing installation time
- Broad design selection allows for mix and match of fiber components to specific network applications
- System grounding problems eliminated
- Long-term reliability
- Low cable-plant maintenance, ease of installation
- Reduced network costs

RISER (OFNR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
2	OPR002	0.400	10.2	74	110	6.0	15.2	4.0	10.2	400	1779	120	534
4	OPR004	0.400	10.2	74	110	6.0	15.2	4.0	10.2	400	1779	120	534
6	OPR006	0.400	10.2	74	110	6.0	15.2	4.0	10.2	400	1779	120	534
8	OPR008	0.400	10.2	74	110	6.0	15.2	4.0	10.2	400	1779	120	534
12	OPR012	0.400	10.2	74	110	6.0	15.2	4.0	10.2	400	1779	120	534
18	OPR12B018	0.461	11.7	85	127	6.9	17.6	4.6	11.7	600	2670	180	800
24	OPR12B024	0.461	11.7	89	132	6.9	17.6	4.6	11.7	600	2670	180	800
48	OPR12B048	0.461	11.7	90	134	6.9	17.6	4.6	11.7	600	2670	180	800
96	OPR12B096	0.575	14.6	143	213	8.6	21.9	5.7	14.6	800	3560	240	1068
144	OPR12B144	0.730	18.5	229	340	11.0	27.8	7.3	18.5	1000	4445	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

NOTE: Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

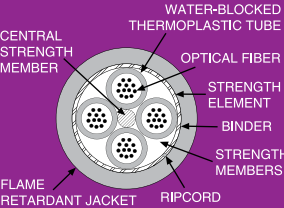
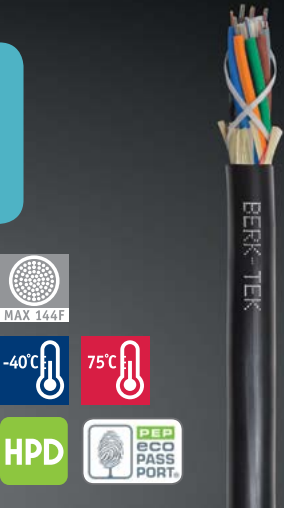
STANDARDS

North American	ANSI/ICEA S-104-696 ANSI/ICEA S-83-596 ANSI/ICEA S-87-640 ANSI/TIA-568-C.3 Telcordia GR-20, Telcordia GR-409 EN 50173
European International	ISO/IEC 11801

CONSTRUCTION

Gel-filled loose tubes with up to 12 fibers each, dielectric strength members (2 for fiber counts 2-12), water-blocking yarns, and a riser-rated jacket.

TECHNICAL DATA								Distance (meters)			
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		1 GbE	10 GbE	40 GbE	100 GbE
Multimode - Bend Insensitive								300	33	N/A	N/A
OM1	CB3510/25	GIGALite	62.5 μm	850/1300	3.5/1.0	200					
OM2+	LB3010/75	GIGALite	50 μm	850/1300	3.0/1.0	950					
OM3	EB3010/25	GIGALite-10	50 μm	850/1300	3.0/1.0	2000					
OM4	FB3010/F5	GIGALite-10FB	50 μm	850/1300	3.0/1.0	4700					
OM4+	XB3010/X5	GIGALite-10XB	50 μm	850/1300	3.0/1.0	4900					
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 μm	850-953/1300	3.0/1.0	4700					
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-30°C to +60°C
Sample Part Number: OPR12B096XB3010/X5	



Dielectric armor shield composed of glass reinforced plastic rods sandwiched between two riser rated jackets

- Available as riser-rated, LSZH, and outside plant
- All-dielectric, indoor/outdoor rodent-resistant cable
- Suitable for renewable wind and solar farms, industrial environments, and mass transit
- Glass reinforced plastic (GRP) dielectric armor between dual jackets
- Available with all dry construction or gel-filled tubes
- Suitable for conduit and in tray installations

TECHNICAL DATA — PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
12	OPRFG012	0.406	10.3	72	107	6.1	15.5	4.1	10.3	800	3559	240	1068
12	LTRG012	0.403	10.2	79	117	6.0	15.4	4.0	10.2	800	3559	240	1068
48	LTRG12B048	0.563	14.3	138	206	8.4	21.5	5.6	14.3	800	3559	240	1068
72	LTRG12B072	0.633	16.1	173	258	9.5	24.1	6.3	16.1	1000	4448	300	1335
96	LTRG12B096	0.703	17.9	211	314	10.5	26.8	7.0	17.9	1000	4448	300	1335
144	LTRG12B144	0.863	21.9	312	464	12.9	32.9	8.6	21.9	1000	4448	300	1335
216	LTRG12B216	0.863	21.9	304	452	12.9	32.9	8.6	21.9	1000	4448	300	1335
12	LTRZG012	0.403	10.2	78	117	6.0	15.4	4.0	10.2	800	3559	240	1068
48	LTZG12B048	0.563	14.3	148	221	8.4	21.5	5.6	14.3	800	3559	240	1068
72	LTZG12B072	0.633	16.1	185	275	9.5	24.1	6.3	16.1	1000	4448	300	1335
96	LTZG12B096	0.703	17.9	229	341	10.5	26.8	7.0	17.9	1000	4448	300	1335
144	LTZG12B144	0.863	21.9	338	503	12.9	32.9	8.6	21.9	1000	4448	300	1335
216	LTZG12B216	0.883	22.4	326	485	13.2	33.6	8.8	22.4	1000	4448	300	1335
12	OPZG012	0.563	14.3	158	235	8.4	21.5	5.6	14.3	450	2002	135	601
48	OPZG12B048	0.613	15.6	184	273	9.2	23.4	6.1	15.6	600	2670	180	800
72	OPZG12B072	0.653	16.6	207	308	9.8	24.9	6.5	16.6	600	2670	180	800
96	OPZG12B096	0.733	18.6	260	387	11.0	27.9	7.3	18.6	600	2670	180	800
144	OPZG12B144	0.883	22.4	366	545	13.2	33.6	8.8	22.4	600	2670	180	800
216	OPZG12B216	0.903	22.9	334	497	13.5	34.4	9.0	22.9	600	2670	180	800

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 40GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

STANDARDS

North American
ANSI/ICEA S-87-640
ANSI/ICEA S-104-696
ANSI/TIA-568-C.3
Telcordia GR-409
EN 50173
ISO/IEC 11801

European
International

CONSTRUCTION

Dielectric rods surround the core cable, sandwiched between two jackets.

TECHNICAL DATA											
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz*km)		Distance (meters)			
Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGAlite	62.5 μm	850/1300	3.5/1.0	200		300	33	N/A	N/A
OM2+	LB3010/75	GIGAlite	50 μm	850/1300	3.0/1.0	950		750	150	N/A	N/A
OM3	EB3010/25	GIGAlite-10	50 μm	850/1300	3.0/1.0	2000		1000	300	100	70
OM4	FB3010/F5	GIGAlite-10FB	50 μm	850/1300	3.0/1.0	4700		1040	550	150	100
OM4+	XB3010/X5	GIGAlite-10XB	50 μm	850/1300	3.0/1.0	4900		1210	600	300	150
WideBand Multimode - Bend Insensitive								1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGAlite-10WB	50 μm	850-953/1300	3.0/1.0	4700		1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1								1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A		≥ 5000	≥ 10000	≥ 10000	≥ 10000



LOOSE TUBE



LOOSE TUBE



Replaces innerduct | Up to 432 fibers | Plenum, riser or low-smoke zero-halogen (LSZH)

- Jacketed armor that remains flexible due to the spiral wrap armoring process
- Easy one-pull installation into any environment
- Available in aluminum or steel interlock armor
- Compact outside diameters when compared to plenum innerduct or conduit
- Available in tight buffer or loose tube and composite copper and fiber designs
- Aluminum interlock offers 4 to 8 times the crush resistance of a standard dielectric fiber cable (steel, 5 to 10 times)
- Eliminates the need for conduit or plenum innerduct
- Significant cost savings in both materials and labor—up to 25%
- Suitable for hazardous environments or difficult installations
- Accommodates last minute relocations or pathway changes
- Provides a higher concentration of cables in an area than conduit
- Can be installed in campus environments due to the durability and indoor/outdoor rating of the cable
- Rugged armoring materials provide additional security for your fiber backbone
- Suitable for tray installations

Note: Armored cable installed in an outdoor environment should be bonded when passing into an indoor environment.

If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 40GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)

Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)

SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)

SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)

OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)

CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

PON (SMF; I/O ONLY): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

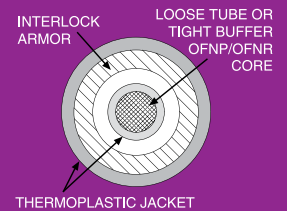
STANDARDS

North American
ANSI/TIA/EIA-568-B.3
ANSI/ICEA S-87-640
ANSI/ICEA S-83-596
Telcordia GR-409
EN 50173
ISO/IEC 11801

CONSTRUCTION

Spirally-wrapped interlocked aluminum or steel armor surrounds the core cable.

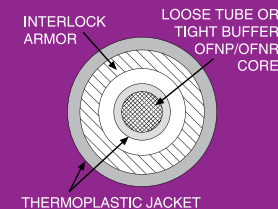
TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGALite	62.5 µm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGALite	50 µm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGALite-10	50 µm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGALite-10FB	50 µm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGALite-10XB	50 µm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGALite-10WB	50 µm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



TEMPERATURE RATING	
Operation	-40°C to +75°C
Storage	-60°C to +85°C
Installation	-30°C to +60°C
Sample Part Number: LTPK012FB3010/F5	

FLAME RATING	
Plenum	OFCP/FT-6
Riser	OFRC/FT-4

ARMORED



PREMISES DISTRIBUTION: PLENUM (OFCP)						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	PDPK006	0.495	12.6	78	116	7.4	18.9	5.0	12.6	100	445	30	133
12	PDPK012	0.523	13.3	87	129	7.8	19.9	5.2	13.3	100	445	30	133
18	PDPK018	0.584	14.8	111	166	8.8	22.3	5.8	14.8	150	667	45	200
24	PDPK024	0.584	14.8	123	183	8.8	22.3	5.8	14.8	150	667	45	200
36	PDPK12B036	0.821	20.9	233	347	12.3	31.3	8.2	20.9	300	1335	90	400
48	PDPK12B048	0.921	23.4	274	408	13.8	35.1	9.2	23.4	600	2640	180	800
72	PDPK12B072	0.974	24.7	361	537	14.6	37.1	9.7	24.7	600	2640	180	800
96	PDPK12B096	1.225	31.1	503	749	18.4	46.7	12.3	31.1	600	2640	180	800
120	PDPK12B120	1.225	31.1	492	732	18.4	46.7	12.3	31.1	1000	4445	300	1335
144	PDPK12B144	1.225	31.1	508	756	18.4	46.7	12.3	31.1	1000	4445	300	1335

ADVENTUM INDOOR/OUTDOOR LOOSE TUBE: PLENUM (OFCP)						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	LTPK006	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
8	LTPK008	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
12	LTPK012	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
24	LTPK12B024	0.730	18.5	184	274	11.0	27.8	7.3	18.5	600	2670	200	890
36	LTPK12B036	0.730	18.5	184	274	11.0	27.8	7.3	18.5	600	2670	200	890
48	LTPK12B048	0.730	18.5	185	275	11.0	27.8	7.3	18.5	600	2670	200	890
60	LTPK12B060	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
72	LTPK12B072	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
84	LTPK12B084	0.851	21.6	228	339	12.8	32.4	8.5	21.6	600	2670	200	890
96	LTPK12B096	0.851	21.6	247	368	12.8	32.4	8.5	21.6	600	2670	200	890
108	LTPK12B108	0.951	24.2	281	418	14.3	36.2	9.5	24.2	600	2670	200	890
120	LTPK12B120	0.951	24.2	304	452	14.3	36.2	9.5	24.2	600	2670	200	890
132	LTPK12B132	1.004	25.5	332	494	15.1	38.3	10.0	25.5	600	2670	200	890
144	LTPK12B144	1.004	25.5	359	535	15.1	38.3	10.0	25.5	1000	4448	300	1335
216	LTPK12B216	1.004	25.5	331	493	15.1	38.3	10.0	25.5	1000	4448	300	1335

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

PREMISES DISTRIBUTION: RISER (OFCR)						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	PDRK006	0.624	15.8	120	179	9.4	23.8	6.2	15.8	150	667	45	200
12	PDRK012	0.624	15.8	126	188	9.4	23.8	6.2	15.8	150	667	45	200
18	PDRK018	0.624	15.8	134	199	9.4	23.8	6.2	15.8	150	667	45	200
24	PDRK024	0.690	17.5	166	248	10.4	26.3	6.9	17.5	150	667	45	200
36	PDRK12B036	0.961	24.4	277	412	14.4	36.6	9.6	24.4	150	667	45	200
48	PDRK12B048	0.961	24.4	301	448	14.4	36.6	9.6	24.4	150	2670	180	800
72	PDRK12B072	1.080	27.4	397	591	16.2	41.1	10.8	27.4	600	2670	180	800
96	PDRK12B096	1.265	32.1	521	775	19.0	48.2	12.7	32.1	600	2670	180	800
120	PDRK12B120	1.265	32.1	524	780	19.0	48.2	12.7	32.1	1000	4445	300	1335
144	PDRK12B144	1.265	32.1	539	802	19.0	48.2	12.7	32.1	1000	4445	300	1335

ADVENTUM INDOOR/OUTDOOR LOOSE TUBE: RISER (OFCR)						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Loading			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	LTRK006	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90	400
8	LTRK008	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90	400
12	LTRK012	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90	400
24	LTRK12B024	0.744	18.9	186	277	11.2	28.3	7.4	18.9	300	1335	90	400
36	LTRK12B036	0.744	18.9	187	278	11.2	28.3	7.4	18.9	300	1335	90	400
48	LTRK12B048	0.744	18.9	187	279	11.2	28.3	7.4	18.9	300	1335	90	400
60	LTRK12B060	0.865	22.0	232	346	13.0	33.0	8.7	22.0	600	2670	200	890
72	LTRK12B072	0.865	22.0	232	345	13.0	33.0	8.7	22.0	600	2670	200	890
84	LTRK12B084	0.865	22.0	243	361	13.0	33.0	8.7	22.0	600	2670	200	890
96	LTRK12B096	0.965	24.5	276	411	14.5	36.8	9.7	24.5	600	2670	200	890
108	LTRK12B108	0.965	24.5	292	435	14.5	36.8	9.7	24.5	600	2670	200	890
120	LTRK12B120	1.018	25.9	326	486	15.3	38.8	10.2	25.9	600	2670	200	890
132	LTRK12B132	1.018	25.9	348	518	15.3	38.8	10.2	25.9	600	2670	200	890
144	LTRK12B144	1.018	25.9	360	536	15.3	38.8	10.2	25.9	1000	4448	300	1335
216	LTRK12B216	1.018	25.9	350	521	15.3	38.8	10.2	25.9	1000	4448	300	1335

ARMORED



TEMPERATURE RATING		
	PDPK & PDRK	LTPK & LTRK
Operation	-20°C to +75°C	-40°C to +75°C
Storage	-40°C to +85°C	-60°C to +85°C
Installation	0°C to +75°C	-20°C to +60°C

Sample Part Number: LTPK006FB3010/F5

FLAME RATING

Plenum	OFCP/FT-6
Riser	OFCR/FT-4



Security camera cable | Multiple fibers | Indoor/outdoor | DAS Connections

- Superior composite cable design combines optical fiber bandwidth with power for IP cameras or media converter via power conductors
- Available with up to 12 fibers and 4 conductors
- CL3P/PLTC-OF, wet and dry rated
- Multimode, Single-mode, and GIGAlite™ fibers
- Indoor/Outdoor dry water-blocked designs
- Enables PoE equipment to be located more than 100 meters from the switch
- Cost savings versus installation of a new electrical outlet
- CL3P-OF/PLTC-OF allows cable to be installed in communication pathways, trays, and conduits
- Ease of installation
- Aluminum or steel interlock armored designs available
- Armor option adds crush resistance and is a cost effective alternative to plenum innerduct
- Broad design selection allows for mix and match of copper and fiber components to specific networking applications
- Immune to EMR/RFI
- Indoor only with up to four 12 or 18 AWG conductors

PLENUM (CL3P & CMP) RATED TECHNICAL DATA — PHYSICAL							Install		Long Term		PoE		PoE+	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Distance				
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	ft.	m	ft.	m	
2	HDPC002-002X12AWG	0.314	8.0	93	138	4.7	12.0	3.1	8.0	6560	1999	1856	566	
12	ACPC012-002x12AWG	0.317	8.1	79	118	4.8	12.1	3.2	8.1	6560	1999	1856	566	

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

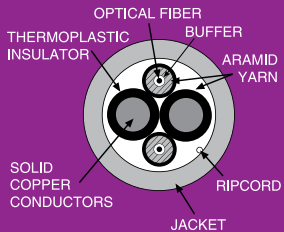
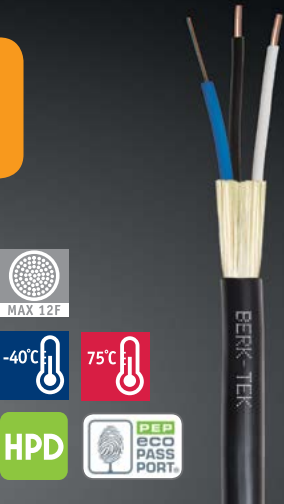
STANDARDS

North American UL 444, UL 13, Telcordia GR-409
 ANSI/TIA-568-C.3
 ANSI/ICEA S-104-696
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

Each cable consists of multiple plenum insulated copper conductors and multiple fibers cabled together within an outer jacket.

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGAlite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGAlite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGAlite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGAlite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGAlite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGAlite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000



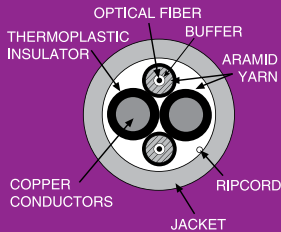
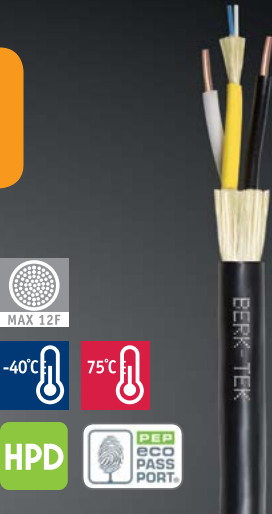
TEMPERATURE RATING		
	ACPC	HDPC
Operation	-40°C to +75°C	-40°C to +75°C
Storage	-60°C to +85°C	-40°C to +85°C
Installation	-20°C to +60°C	-10°C to +70°C
Sample Part Number: ACPC012XB3010/x5		

FLAME RATING	
Plenum	NFPA 262, CMP





COMPOSITE



Security camera cable | Multiple fibers | Indoor/outdoor | TFFN or THWN conductors | DAS Connections

- Superior composite cable design combines optical fiber bandwidth with power for IP cameras or media converter via power conductors
- Available with up to 12 fibers and 8 conductors
- CL3R/PLTC-OF, wet and dry rated
- Multimode, Single-mode, and GIGAlite™ fibers
- Indoor/Outdoor dry water-blocked designs
- Enables PoE equipment to be located more than 100 meters from the switch
- Cost savings versus installation of a new electrical outlet
- CL3R-OF/PLTC-OF allows cable to be installed in communication pathways, trays, and conduits
- Ease of installation
- Aluminum or steel interlock armored designs available
- Armor option adds crush resistance and is a cost effective alternative to plenum innerduct
- Broad design selection allows for mix and match of copper and fiber components to specific networking applications
- Immune to EMR/RFI
- Indoor only with up to eight 12 or 18 AWG conductors

RISER (CL3R & CMR) RATED TECHNICAL DATA — PHYSICAL						Install		Long Term		PoE		PoE+	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius				Max. Distance			
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	ft.	m	ft.	m
2	HDRC002-002X12AWG	0.340	8.6	93	138	5.1	13.0	3.4	8.6	6560	1999	1856	566
12	ACRC012-002X12AWG	0.375	9.5	87	129	5.6	14.3	3.8	9.5	6560	1999	1856	566
12	OPRC012-002X12AWG	0.375	9.5	88	131	5.6	14.3	3.8	9.5	6560	1999	1856	566
2	HDRC002-002X18AWG	0.320	8.1	49	72	4.8	12.2	3.2	8.1	2000	609	500	152

This is a representative part number listing. For part number details, refer to page 105.
If HPD or PEP certification is required, additional lead time may be needed. For details, please contact us at 1-800-BERK-TEK.

SUPPORTED BANDWIDTH

ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
PON (SMF): (RfOG, APON, BPON, EPON, GPON, WDM-PON, NG-PON)

STANDARDS

North American UL 444, UL 13, Telcordia GR-409
 ANSI/ICEA S-104-696
European EN 50173
International ISO/IEC 11801

CONSTRUCTION

A wide variety of constructions are available in this family. Multiple THWN or TFFN conductors are cabled together with a tight buffer construction (HDR) or with loose tube constructions (ACR or OPR).

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz•km)	Distance (meters)			
Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM1	CB3510/25	GIGAlite	62.5 μm	850/1300	3.5/1.0	200	300	33	N/A	N/A
OM2+	LB3010/75	GIGAlite	50 μm	850/1300	3.0/1.0	950	750	150	N/A	N/A
OM3	EB3010/25	GIGAlite-10	50 μm	850/1300	3.0/1.0	2000	1000	300	100	70
OM4	FB3010/F5	GIGAlite-10FB	50 μm	850/1300	3.0/1.0	4700	1040	550	150	100
OM4+	XB3010/X5	GIGAlite-10XB	50 μm	850/1300	3.0/1.0	4900	1210	600	300	150
WideBand Multimode - Bend Insensitive							1 GbE	10 GbE	40 GbE	100 GbE
OM5	WB3010/W5	GIGAlite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
Single-Mode - Bend Insensitive - ITU-T G.657.A1							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0707	Standard for Tight Buffer	SMF	1300/1550	0.5/0.5	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000
OS2	AB0403	Standard for Loose Tube	SMF	1300/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000

COMPOSITE



TEMPERATURE RATING

	ACRC & OPRC	HDRC
Operation	-40°C to +75°C	-40°C to +75°C
Storage	-60°C to +85°C	-40°C to +85°C
Installation	-20°C to +60°C	-20°C to +60°C

Sample Part Number: ACRC002AB0707-002X12AWG

FLAME RATING

Riser	UL1666, CMR
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Berk-Tek’s Buffer Tube Break-Out Kits are specifically designed for the termination of 6-fiber and 12-fiber loose tube cables.

24” or 36” options | Available with 6 or 12 tubes | One kit needed for each end of a terminated tube

- Break-out tubing
- New snap-together unit eliminates need for epoxy
- Compact design
- Quick and easy-to-install
- Optimized for field termination of loose tube cables
- Terminates 2.4 mm and 3.0 mm buffer tubes
- Excellent fiber routing capabilities
- Bend radius protection designed into each unit

BUFFER TUBE BREAK-OUT KITS		
Part Number	Diameter	Weight
10033624	24 inches	12
10033625	36 inches	12
10033626	24 inches	6
10033627	36 inches	6

This is a representative part number listing. For part number details, refer to page 105.

SUPPORTED BANDWIDTH

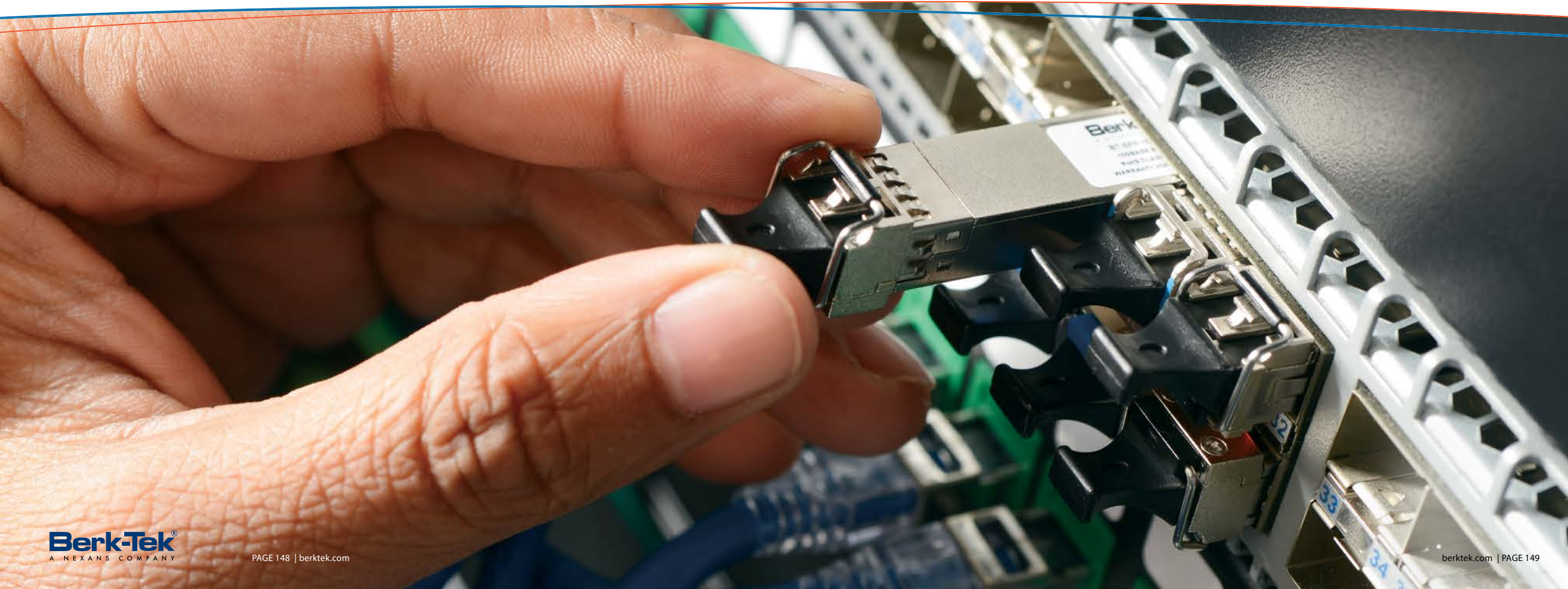
IEEE 802.3	100GBASE-SR	100 Gbps
IEEE 802.3	40GBASE-SR	40 Gbps
IEEE 802.3	10GBASE-X	10 Gbps
IEEE 802.3	1000BASE-SX/LX	1 Gbps
IEEE 802.3	10BASE-F	10 Mbps
IEEE 802.3	FOIRL	10 Mbps
FDDI		100 Mbps
ATM		155 Mbps
		622 Mbps
		1.2/2.4 Gbps
Fibre Channel	FC-PH	1.062 Gbps

STANDARDS

North American	Telcordia GR-409
	ANSI/TIA-568-C.3
European	EN 50173
International	ISO/IEC 11801

NOTE: Pre-polished connectors terminated to all dry loose tube cables

Please follow procedures for use of adhesive when using factory pre-polished connectors. Procedures available at www.berktek.com or upon request at 1-800-BERKTEK (1-800-237-5835).



1 GB ETHERNET	
SFP Transceiver	154
10 GB ETHERNET	
SFP+ Transceiver.....	156
FIBRE CHANNEL	
SFP+ Transceiver.....	158
40 GB ETHERNET	
QSFP+ Transceiver.....	160

Berk-Tek Transceivers: Own the link. See the difference.

Compatibility guaranteed.

All Berk-Tek transceivers are 100% compatible with major equipment manufacturers. It's a common misconception that equipment manufacturers can deny warranty support on your router or switch if you have purchased third-party transceivers. This is not the case; in fact, it is illegal for them to do so. The Magnuson-Moss Warranty Act of 1975 prohibits manufacturers from linking a warranty to the use of branded product sold by the same manufacturer.

Ever-increasing bandwidth demand is continually driving changes to your network and data center. In fact, in the coming years, you will surely need more servers, more switches and more storage capacity connected at higher data rates. That's why it's so important to "own the link."

What does that mean?

In the past, transceivers have been purchased from equipment manufacturers; but since a transceiver's performance has more to do with the cabling than equipment, it makes more sense to specify the cable and transceivers together. That way, you own the entire link.

Longer reach + More connections.

Using Berk-Tek's 40Gbps transceivers paired with our GIGAlite™-10XB glass, we guarantee enough power budget to support a link distance of up to 500 meters. Standard compliant solutions offer only 150 meters at 40Gbps. Of course, you can trade off distance for more connections, but with Berk-Tek's solutions, you have the flexibility to scale your network and data center to whatever your current and future needs require.



Download Berk-Tek's Power Budget Calculator

Berk-Tek's Power Budget Calculator puts sophisticated Layer 1 performance right in your hands. The Power Budget Calculator takes the complex interactions of the various contributors to link performance and puts them into a simple-to-use calculator to allow you to design a link that works best — an especially important advantage as data rates increase and power budgets become more restricted.

Engineered Links at the Transceiver Level: For many years, users have been taking advantage of "Engineered Links" in order to provide improved connectivity between devices in a network. An Engineered Link is one where some attribute is specified to be better than the minimum compliance value, resulting in improved performance.

Berk-Tek GIGAlite™-10XB is a great example of this. The experts at Berk-Tek's TEK Center defined a set of parameters for the optical fiber to provide extended reach, and/or additional connection points, to facilitate migration paths to higher data rates.

Now, the TEK Center experts have applied that same knowledge to transceiver performance. By combining the enhanced performance of the optical fiber with associated transceiver specifications, a significantly improved link can now be designed.

You can download the Berk-Tek Power Budget Calculator at www.berktektransceivers.com



The bottom line: you can buy transceivers from a lot of vendors, but only one transceiver brand is backed by decades of proven quality, industry-leading technical expertise and unmatched customer service. Only one line of transceivers provides you with the assurance, trust and value that the Berk-Tek name represents.

Provides a quick and reliable interface for the 1G Ethernet application.



All Berk-Tek optical Ethernet transceivers are fully compatible with their associated OEM hardware.

- 1.25 Gb/s bi-directional data links
- Compliant with IEEE 802.3z 1000BASE
- Compliant with SFF8431
- Hot-pluggable SFP footprint
- Built-in digital diagnostics
- Class 1 laser product complies with EN 60825-1
- Single power supply 3.3V
- Fully compatible with any IEEE compliant link
- 100% OEM compatibility
- Operating temperature ranges: 0°C to 70°C, or -5°C to 85°C



SFP-1GBE-SX

- Uncooled 850 nm VCSEL laser transmitter
- Up to 1200-meter reach with GIGAlite-10XB optical fiber

SFP-1GBE-LX

- 1310 nm DFB laser transmitter

SFP-1GBE-T

- BASE-T connection, RJ45
- 100 meters on Cat 5e or better

MULTIMODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-1GBE-SX-AR	81000588	Arista compatible 1GbE Short Reach SFP	SFP-1G-SX-ARISTA
SFP-1GBE-SX-CI	81000573	Cisco compatible 1GbE Short Reach SFP	GLC-SX-MM
SFP-1GBE-SX-DE	81000606	Dell compatible 1GbE Short Reach SFP	GP-SFP2-1S
SFP-1GBE-SX-HP	81000618	HP compatible 1GbE Short Reach SFP	J4858C
SFP-1GBE-SX-JU	81000612	Juniper compatible 1GbE Short Reach SFP	EX-SFP-1GE-SX

SINGLE-MODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-1GBE-LX-AR	81000589	Arista compatible 1GbE Long Reach SFP	SFP-1G-LX-ARISTA
SFP-1GBE-LX-CI	81000574	Cisco compatible 1GbE Long Reach SFP	GLC-LH-SM
SFP-1GBE-LX-DE	81000607	Dell compatible 1GbE Long Reach SFP	GP-SFP2-1Y
SFP-1GBE-LX-HP	81000619	HP compatible 1GbE Long Reach SFP	J4859C
SFP-1GBE-LX-JU	81000613	Juniper compatible 1GbE Long Reach SFP	EX-SFP-1GE-LX

TWISTED PAIR			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-1GBE-T-AR	81000677	Arista compatible 1000BASE-T SFP+	SFP-1G-T
SFP-1GBE-T-BR	81000678	Brocade compatible 1000BASE-T SFP+	E1MG-TX
SFP-1GBE-T-CI	81000679	Cisco compatible 1000BASE-T SFP+	GLC-T
SFP-1GBE-T-DE	81000680	Dell compatible 1000BASE-T SFP+	310-7225
SFP-1GBE-T-HP	81000681	HP compatible 1000BASE-T SFP+	J8177C
SFP-1GBE-T-JU	81000682	Juniper compatible 1000BASE-T SFP+	EX-SFP-1GE-T



REACH		
	SX	LX
OM3	550	550
OM4	550	550
GIGAlite-10 EB	1000	600
GIGAlite-10 FB	1040	600
GIGAlite-10 XB	1210	600
SM	NA	10000

Provides a quick and reliable interface for the 10G Ethernet application.



All Berk-Tek optical Ethernet transceivers are fully compatible with their associated OEM hardware.

- 10.3125 GBd bi-directional data links
- Compliant with IEEE 802.3ae 10GBASE
- Compliant with SFF8431
- Hot-pluggable SFP footprint
- Built-in digital diagnostics
- Class 1 laser product complies with EN 60825-1
- Single power supply 3.3V
- Fully compatible with any IEEE compliant link
- 100% OEM compatibility
- Operating temperature ranges: 0°C to 70°C, or -5°C to 85°C

SFP-10GBE-SR

- Uncooled 850 nm VCSEL laser transmitter
- Up to 600 -meter reach with GIGAlite-10XB optical fiber

SFP-10GBE-LR

- 1310 nm DFB laser transmitter

SFP-10GBE-T

- BASE-T connection, RJ45
- 30 meter reach on Cat 6A or better

MULTIMODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-10GBE-SR-AR	81000590	Arista compatible 10GbE Short Reach SFP+	SFP-10G-SR-ARISTA
SFP-10GBE-SR-BR	81000594	Brocade compatible 10GbE Short Reach SFP+	10G-SFPP-SR
SFP-10GBE-SR-CI	81000575	Cisco compatible 10GbE Short Reach SFP+	SFP-10G-SR
SFP-10GBE-SR-DE	81000608	Dell compatible 10GbE Short Reach SFP+	GP-10GSFP-1S
SFP-10GBE-SR-HP	81000620	HP compatible 10GbE Short Reach SFP+	J9150A
SFP-10GBE-SR-JU	81000614	Juniper compatible 10GbE Short Reach SFP+	EX-SFP-10GE-SR

SINGLE-MODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-10GBE-LR-AR	81000591	Arista compatible 10GbE Long Reach SFP+	SFP-10G-LR-ARISTA
SFP-10GBE-LR-BR	81000595	Brocade compatible 10GbE Long Reach SFP+	10G-SFPP-LR
SFP-10GBE-LR-CI	81000576	Cisco compatible 10GbE Long Reach SFP+	SFP-10G-LR
SFP-10GBE-LR-DE	81000609	Dell compatible 10GbE Long Reach SFP+	GP-10GSFP-1L
SFP-10GBE-LR-HP	81000621	HP compatible 10GbE Long Reach SFP+	J9151A
SFP-10GBE-LR-JU	81000615	Juniper compatible 10GbE Long Reach SFP+	EX-SFP-10GE-LR

TWISTED PAIR			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-10GBE-T-AR	81000671	Arista compatible 10GbE BASE-T SFP+	NA
SFP-10GBE-T-BR	81000672	Brocade compatible 10GbE BASE-T SFP+	NA
SFP-10GBE-T-CI	81000673	Cisco compatible 10GbE BASE-T SFP+	NA
SFP-10GBE-T-DE	81000674	Dell compatible 10GbE BASE-T SFP+	NA
SFP-10GBE-T-HP	81000675	HP compatible 10GbE BASE-T SFP+	813874-B21
SFP-10GBE-T-JU	81000676	Juniper compatible 10GbE BASE-T SFP+	NA



REACH		
	SR	LR
OM3	300	NA
OM4	400	NA
GIGAlite-10 EB	300	NA
GIGAlite-10 FB	550	NA
GIGAlite-10 XB	600	NA
SM	NA	10000



All Berk-Tek optical Fibre Channel transceivers are fully compatible with their associated OEM hardware.

- Compliant with Fibre Channel FC-PI-5 specification
- Compliant with SFF8431 and SFF8472
- Hot-pluggable SFP footprint
- Built-in digital diagnostics
- Duplex LC connector
- Class 1 laser product complies with EN 60825-1
- Single power supply 3.3V
- 100% OEM compatibility
- Operating temperature range: 0°C to 70°C

SFP-8GFC-LW

- 8.5 GBd bi-directional data links
- 1310 nm DFB laser transmitter
- Up to 10km on standard single-mode optical fiber
- Fully compatible with any 8G Fibre Channel link

SFP-8GFC-SW

- Uncooled 850 nm VCSEL transmitter
- Up to 225 meter reach with GIGAlite-10XB optical fiber
- Fully compatible with any 8G Fibre Channel link

SFP-16GFC-SW+

- 14.025 GBd bi-directional data links
- Uncooled 850 nm VCSEL transmitter
- Up to 200 meter reach with GIGAlite-10XB optical fiber
- Fully compatible with any 16G Fibre Channel link

MULTIMODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-8GFC-SW-BR	81000596	Brocade compatible 8GFC Short Reach SFP+	8G-SFPP-SR
SFP-8GFC-SW-CI	81000601	Cisco compatible 8GFC Short Reach SFP+	DS-SFP-FC8G-SW
SFP-8GFC-SW+-BR	Call for details	Brocade compatible 8GFC Enhanced Short Reach SFP+	NA
SFP-8GFC-SW+-CI	Call for details	Cisco compatible 8GFC Enhanced Short Reach SFP+	NA
SFP-16GFC-SW-BR	81000598	Brocade compatible 16GFC Short Reach SFP+	16G-SFPP-SR
SFP-16GFC-SW-CI	81000603	Cisco compatible 16GFC Short Reach SFP+	DS-SFP-FC16G-SW
SFP-16GFC-SW+-BR	Call for details	Brocade compatible 16GFC Enhanced Short Reach SFP+	NA
SFP-16GFC-SW+-CI	Call for details	Cisco compatible 16GFC Enhanced Short Reach SFP+	NA

SINGLE-MODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
SFP-8GFC-LW-BR	81000597	Brocade compatible 8GFC Long Reach SFP+	8G-SFPP-LR
SFP-8GFC-LW-CI	81000602	Cisco compatible 8GFC Long Reach SFP+	DS-SFP-FC8G-LW



REACH			
	8G SW	8G SW+	8G LW
OM3	150	NA	NA
OM4	190	NA	NA
GIGAlite-10 EB	150	225	NA
GIGAlite-10 FB	190	270	NA
GIGAlite-10 XB	225	300	NA
SM	NA	NA	10000

	16G SW	16G SW+	16G LW
OM3	100	NA	NA
OM4	125	NA	NA
GIGAlite-10 EB	100	150	NA
GIGAlite-10 FB	125	175	NA
GIGAlite-10 XB	140	200	NA
SM	NA	NA	10000

Provides a quick and reliable interface for the 40G Ethernet application.



All Berk-Tek optical Ethernet transceivers are fully compatible with their associated OEM hardware.

- 4 channel 10.3125 GBd bi-directional transceiver module
- Compliant with IEEE 802.3ba 40GBASE and SFF8436
- Hot-pluggable QSFP footprint
- Built-in digital diagnostics
- Class 1 laser product complies with EN 60825-1
- Fully compatible with any IEEE compliant link
- Enhanced link performance when used in conjunction with Berk-Tek GIGAlite glass
- 100% OEM compatibility
- Operating temperature range: 0°C to 70°C

QSFP-10GBE-SR4

- Compliant with IEEE 802.3ba 40GBASE-SR4
- Uncooled 850 nm VCSEL laser transmitter
- 12-fiber MPO connector
- Power consumption < 1.5 Watts

QSFP-40GBE-LR4

- Compliant with IEEE 802.3ba 40GBASE-LR4
- 1310 nm DFB laser transmitter
- 2-fiber MPO connector
- Power consumption < ? Watts

MULTIMODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
QSFP-40GBE-SR4-AR	81000592	Arista compatible 40GbE Short Reach QSFP	QSFP-40G-SR4-ARISTA
QSFP-40GBE-SR4-AR	81000599	Brocade compatible 40GbE Short Reach QSFP	40G-QSFP-SR4-INT
QSFP-40GBE-SR4-CI	81000604	Cisco compatible 40GbE Short Reach QSFP	QSFP-40G-SR4
QSFP-40GBE-SR4-DE	81000610	Dell compatible 40GbE Short Reach QSFP	GP-QSFP-40GE-1SR
QSFP-40GBE-SR4-HP	81000622	HP compatible 40GbE Short Reach QSFP	JG709A
QSFP-40GBE-SR4-JU	81000616	Juniper compatible 40GbE Short Reach QSFP	QFX-QSFP-40G-SR4
QSFP-40GBE-SR4+-AR	Call for details	Arista compatible 40GbE Enhanced Short Reach QSFP	NA
QSFP-40GBE-SR4+-BR	Call for details	Brocade compatible 40GbE Enhanced Short Reach QSFP	NA
QSFP-40GBE-SR4+-CI	Call for details	Cisco compatible 40GbE Enhanced Short Reach QSFP	NA
QSFP-40GBE-SR4+-DE	Call for details	Dell compatible 40GbE Enhanced Short Reach QSFP	NA
QSFP-40GBE-SR4+-HP	Call for details	HP compatible 40GbE Enhanced Short Reach QSFP	NA
QSFP-40GBE-SR4+-JU	Call for details	Juniper compatible 40GbE Enhanced Short Reach QSFP	NA

SINGLE-MODE			
Berk-Tek Part Number	Material Number	Description	OEM Part Number
QSFP-40GBE-LR4-AR	81000593	Arista compatible 40GbE Long Reach QSFP	QSFP-40GE-LR4-ARISTA
QSFP-40GBE-LR4-BR	81000600	Brocade compatible 40GbE Long Reach QSFP	40G-QSFP-LR4
QSFP-40GBE-LR4-CI	81000605	Cisco compatible 40GbE Long Reach QSFP	QSFP-40GE-LR4
QSFP-40GBE-LR4-DE	81000611	Dell compatible 40GbE Long Reach QSFP	GP-QSFP-40GE-1LR
QSFP-40GBE-LR4-HP	81000623	HP compatible 40GbE Long Reach QSFP	JG661A
QSFP-40GBE-LR4-JU	81000617	Juniper compatible 40GbE Long Reach QSFP	JNP-QSFP-40G-LR4



REACH			
	SR4	SR4+	LR4
OM3	100	NA	NA
OM4	150	NA	NA
GIGAlite-10 EB	100	300	NA
GIGAlite-10 FB	150	400	NA
GIGAlite-10 XB	300	500	NA
SM	NA	NA	10000





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BTPRDCTCTLG 02/17

