

BIVAR



PRODUCT CATALOG

 Q-FLEX

Avantintie 7, FI-21420 Lieto
+358 2 4894 500
info@q-flex.fi | q-flex.fi

www.bivar.com

TABLE OF CONTENTS

Clear, Efficient, User-focused Design	01	Flexible Light Pipes	10
		SMD LED Systems	
		Through-Hole LED Systems	
Featured Products	02	LED Emitters	12
IP Rated Products		PLCC	
Light Pipe Positioning Tray		Surface Mount Chip	
ZeroLightBleed™ Products		Through Hole	
Light Pipe Design Kits		Ultraviolet UV	
Featured Panel Press-Fit Light Pipes	04	Modular Light Pipe System	14
Featured Board Mount Light Pipes	06	Surface Area Light Guides	15
Rigid Light Pipes	08	LED Indicators & Mounts	16
Panel Press-Fit		Hardware	18
Board Mount			

LIGHT IS FUNDAMENTAL TO LIFE

Bivar believes that simply having light isn't enough. When lives and livelihoods depend on light, it must be delivered in ways that are clear, efficient and above all, focused on the person using it.

Bivar offers the most expansive line of Light Pipes to meet today's product design challenges. See how our decades of experience integrating LEDs and Light Pipes can help your product communicate more effectively!



CLEAR, EFFICIENT, USER-FOCUSED DESIGN

At Bivar, we listen.

Engaging in your design process in the early stages allows us to collaborate, assess and apply our expertise, saving you time and money as your project evolves. We are a forward-focused, innovation-driven company.



We do more than route light from Point A to Point B.

We design products that are resilient and adaptable, capable of thriving in harsh environments and evolving alongside technological progress. Whether it's working alongside advanced AI capabilities and IoT integration or utilizing sustainable materials, our commitment to future-proofing guarantees that our products remain ahead of the curve.



Take a look at our featured products on the following pages to get a hint of what makes Bivar the industry leader.

IP Rated Products

When rugged and harsh environments are your game - Bivar has the tough players to match! IP Rated Products are key to keeping your application thriving in conditions that would make others cringe. With decades of experience, Bivar has IP Rated solutions that are well known in the industry. Find out how Bivar's IP Rated light pipes can protect your design.



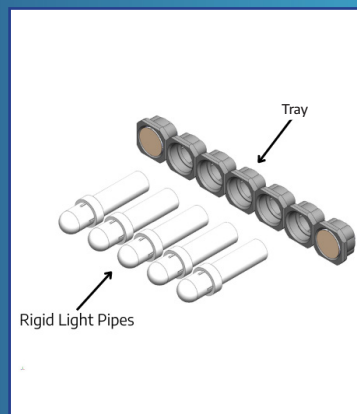
www.bivar.com/light-pipe-protection-for-rugged-harsh-environments/

BIVAR Light Advant

Light Pipe Positioning Tray

Light Pipe Positioning Tray offers a streamlined approach that simplifies assembly and saves time, providing a smarter, faster path to success.

With the addition of a tray designed for precise alignment and enhanced support, light pipe installation becomes more straightforward than ever. This improves retention and increases overall installation efficiency, offering a smarter, more seamless assembly experience.



www.bivar.com/light-pipe-positioning-tray

zer●lightbleed™ Products

Bivar is the originator of ZeroLightBleed™ technology, offering the most expansive line of Light Pipes to meet today's design challenges. The Bivar engineering team has decades of aggregate experience integrating LEDs and Light Pipes into product designs.

Find out how Light Pipes can help you communicate more effectively in your next design.



www.bivar.com/resources/video/zerolightbleed-solutions/

BIVAR
Light Pipe
Advantage

Light Pipe Design Kits

Designing a product can be complex, but Bivar's specialized design kits make it easier—and more fun!

Tailored for panel mount or board mount designs, each kit includes a selection of our most popular light pipes, giving you the tools to explore, experiment, and bring your ideas to life. Let's light the way to your next great design!



www.bivar.com/design-kits/

FEATURED PANEL PRESS-FIT LIGHT PIPES

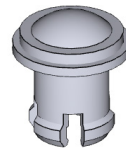
PLW5

Wide-capture lower body provides micro-lens to capture and emit more LED light.



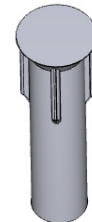
SGLC

IP68 Rated Sealing Gasket Lens Cap designed to provide ingress protection to LED status indication for applications exposed to harsh environments.



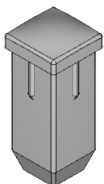
PLPC

Countersink flush mount design for smooth panel appearance.



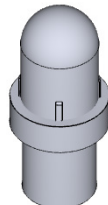
PLPQ

Square shaped lens design provides a clean symmetrical alternative to round lens.



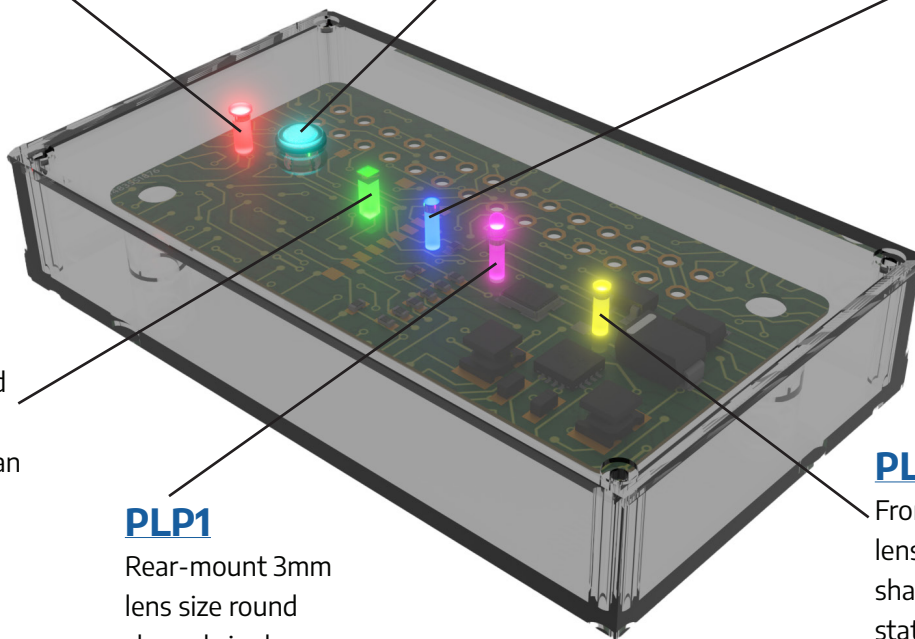
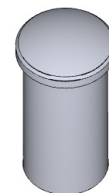
PLP1

Rear-mount 3mm lens size round shaped single station short distance light pipe.



PLP2

Front-mount 3mm lens size round shaped single station short distance light pipe.



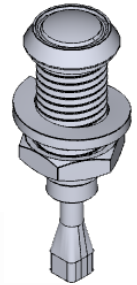
PLTR

IP67 threaded retention for maximum protection against dust and water.



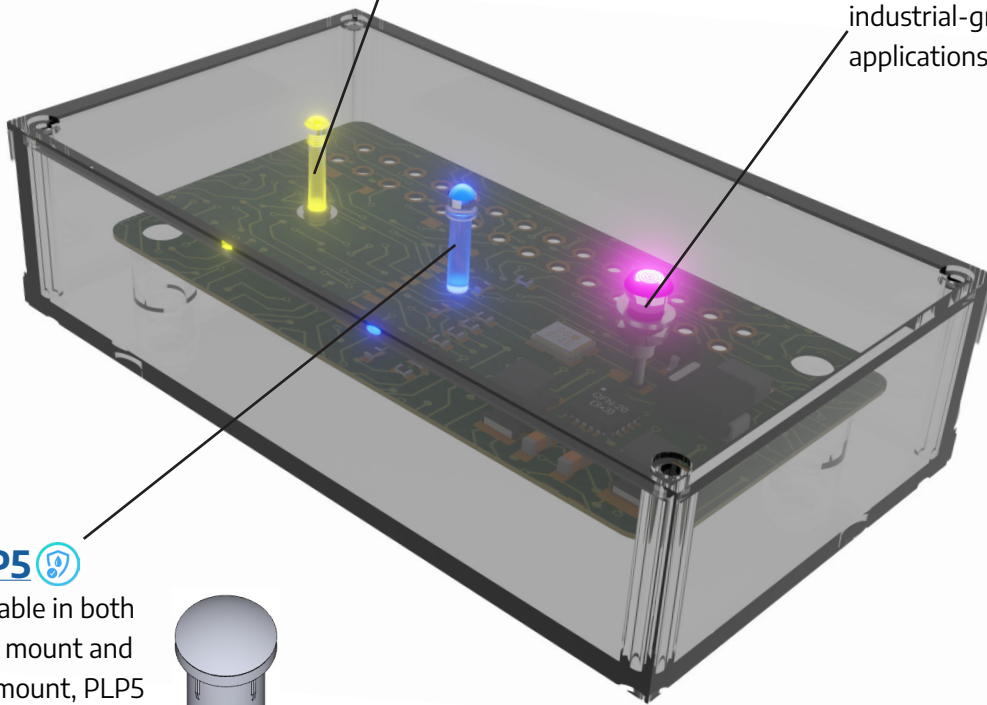
RHD

IP67 heavy-duty threaded retention for maximum protection in industrial-grade applications.



PLP5

Available in both front mount and rear mount, PLP5 is a IP54 5mm lens size round shaped single station short distance light pipe.



FEATURED BOARD MOUNT LIGHT PIPES

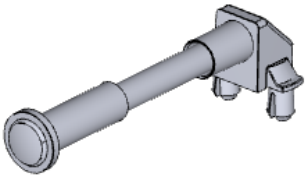
UHF zerolightbleed™

Silicone Flexible Light Pipe with ZeroLightBleed™ adapter and patent-pending rib design provides IP67 protection without a need for nut, washer, and gasket.



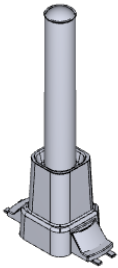
SZR zerolightbleed™

IP54 Right angle low profile ZeroLightBleed Flexible Light Pipe Adapter System for tight, constrained spaces.



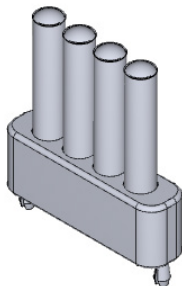
LPV zerolightbleed™

ZeroLightBleed™ surface mount adapter with built-in Bivar SMD LED and vertical light pipe.



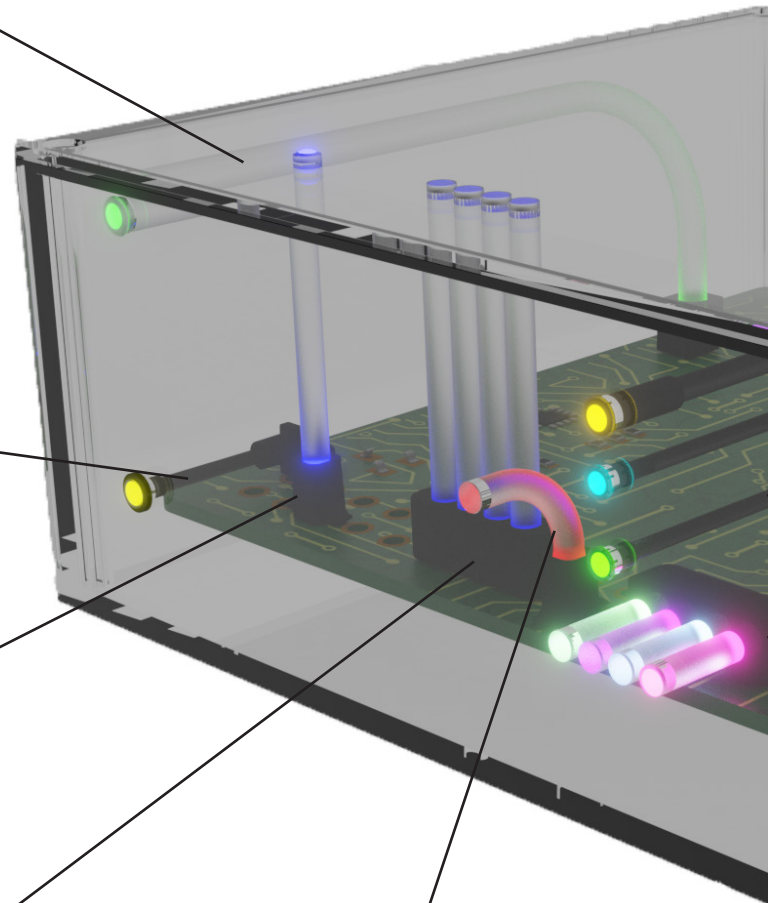
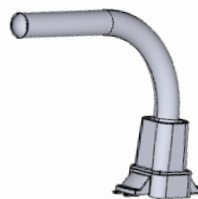
LPAV zerolightbleed™

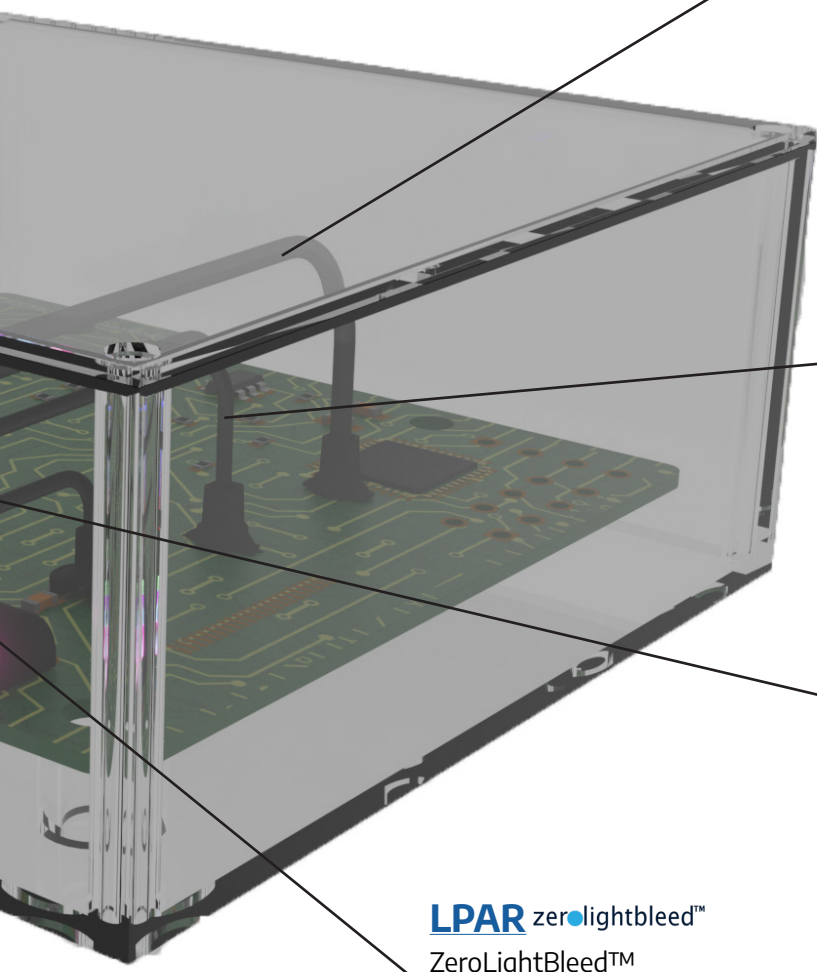
ZeroLightBleed™ adapter 4 station vertical light pipe array.




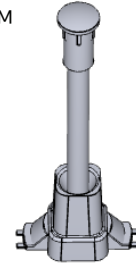
LPR zerolightbleed™

ZeroLightBleed™ surface mount adapter with built-in Bivar SMD LED and right-angle light pipe.

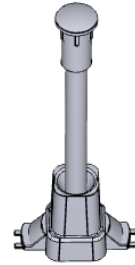




SZ IP54  zer●lightbleed™
IP54 ZeroLightBleed™
Flexible Light Pipe
Adapter System.



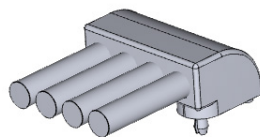
SZ zer●lightbleed™
ZeroLightBleed™
Flexible Light Pipe
Adapter System.



SMFLP
Board mount
adapter system
for Bivar SMD
LED and flexible
light pipe.



LPAR zer●lightbleed™
ZeroLightBleed™
adapter 4 station
right-angle light pipe
array.



II RIGID LIGHT PIPES

Panel Press-Fit

Take a look at Bivar's Panel Press-Fit light pipes. When you need a short-distance light pipe that presses securely into your panel, hovering as close as possible to SMD LED without touching, Bivar has you covered.



RHD

IP67 heavy-duty threaded retention for maximum protection in industrial-grade applications.



SGLC

IP68 Rated Sealing Gasket Lens Cap designed to provide ingress protection to LED status indication.



PLTR

IP67 threaded retention for maximum protection against dust and water.



PLPC

Countersink flush mount design for smooth panel appearance.



PLW5

Wide-capture lower body provides micro-lens to capture and emit more LED light.



PLPQ

Square shaped lens design provides a clean symmetrical alternative to round lens.



PLP1

Rear-mount 3mm lens size round shaped single station short distance light pipe.



PLP2

Front-mount 3mm lens size round shaped single station short distance light pipe.



PLP5

Available in both front mount and rear mount, PLP5 is a 5mm lens size round shaped single station short distance light pipe.



MLPS-B

Light Pipe Positioning Tray provides precise alignment and enhanced support, while increasing installation efficiency.



Board Mount

Board Mount Rigid Light Pipes give you LED illumination exactly where you want it. Bivar offers a short-distance light pipe that can be mounted directly onto your PCB over an SMD LED.



LPV zeroLightBleed™

ZeroLightBleed™ surface mount adapter with built-in Bivar SMD LED and vertical light pipe.



LPAV zeroLightBleed™

ZeroLightBleed™ adapter 4 station vertical light pipe array.



LPR zeroLightBleed™

ZeroLightBleed™ surface mount adapter with built-in Bivar SMD LED and right-angle light pipe.



LPAV zeroLightBleed™

ZeroLightBleed™ adapter 4 station right-angle light pipe array.



VLP

Rear-mount round or rectangular lens single station short distance light pipe.



SLP

Rear-mount 90° variable centerline round lens single station short distance right angle light pipe.



RLP

Multi-station single-level right-angle light pipe array for use with Bivar SMD LEDs.



LP

Two-level round lens single station short distance right angle light pipe.



BGLP

10 uniform segment LED display using clear PMMA sheet material.



PBLP

Unique rear-mount push-button light pipe for use with various right angle switches.

II FLEXIBLE LIGHT PIPES

SMD LED Systems

Bivar offers LED illumination for your most customized needs. For longer distances that require mounting directly onto a PCB, choose the jacketed fiber optic light system.



UHF zeroLightBleed™

Clear silicone flexible light pipe with ZeroLightBleed™ adapter and patent-pending rib design that seals and protects from ingress without a need for nut, washer, and gasket.

- IP67 rated
- Available in 3mm, 4mm, and 5mm diameter. Length 0.250 in. to 6 in.
- Wide temperature range of -40° to 200° Celsius



SZR zeroLightBleed™

Right angle low profile ZeroLightBleed™ adapter system for Bivar SMD LED and Flexible Light Pipes.

- Low profile for applications that need LED light routed in tight spaces.
- Ideal for use in enclosures where height is limited and space constrained.
- Range of IP54 lens sizes, shapes, and colors available.



SZ zeroLightBleed™

ZeroLightBleed™ adapter system for Bivar SMD LED and flexible light pipe. IP54 option available.

- 3 mounting options: Surface Mount, Firm Retention, Post Retention
- Adapter with splash-guard built-in SMD LED option. Available in single and multi-color.
- Reinforced packaging ideal for rugged environment applications.



SMFLP System

Board mount adapter system for Bivar SMD LED and flexible light pipe.

- Available in 1mm, 2mm optical fiber diameter.
- Optical fiber length: 1.0 in. to over 100 ft.
- Lens shapes: Round, Oval, Rectangular



IP Rated



SMTV01 System

Surface mount adapter system with built-in 0606 SMD LED.

- Single and multi-color SMD LED.
- Ordered separately with Bivar 2mm Optical Fiber/Lens Cap.
- Wide range of lens sizes, lens profiles, and lengths.
- Adapter provided on tape and reel for easy installation.



Optical Fiber/Lens Cap

Flexible optical fiber with attached lens for use with Bivar Flexible Light Pipe adapters. IP option available.

- Maximum bend radius of flexible optical fiber light pipe is 10X the outer diameter.
- Available in 1mm, 2mm optical fiber diameter.
- Optical fiber length: 1.0 in. to over 100 ft.
- Allowable cut length is up to 3 decimal places.

Through Hole LED System

Take LED illumination anywhere you need it. This jacketed fiber optic light pipe system is ideal for longer distances that require mounting directly onto a PCB.



ORFLP System

Board mount adapter system with built-in Bivar 4-pin Through-Hole Superflux LED and Flexible Light Pipe.

- Available in 1mm, 2mm optical fiber diameter.
- Optical fiber length: 1.0 in. to over 100 ft.
- Single and multi-color Superflux LEDs.
- Lens shapes: Round, Oval, Rectangular



FLP System

Board mount adapter with built-in Bivar Through-Hole LED and Flexible Light Pipe.

- Available in 1mm, 2mm optical fiber diameter.
- Optical fiber length: 1.0 in. to over 100 ft.
- Vertical and right-angle adapter configurations.
- Single and multi-color Through-Hole LEDs

LED EMITTERS

PLCC

Plastic Leaded Chip Carrier.



SMTL2

PLCC2 SMD LED Top View Low Profile Package.



SMTL4

PLCC4 SMD LED Top View Low Profile Package.



SMTL6

PLCC6 SMD LED Top View Low Profile Package.



SMS1105

PLCC2 SMD LED Side View Low Profile Package.

Surface Mount Miniature

Industry standard high quality SMD LEDs for individual use or with Bivar Light Pipes.



SM0402

Ultra-miniature 0402 industry standard SMD LED package.



SM0603

Miniature 0603 industry standard SMD LED package.



SM0605

Miniature 0605 industry standard SMD LED package.



SM0805

Miniature 0805 industry standard SMD LED package.



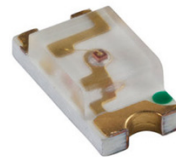
SM0807

Miniature 0807 industry standard SMD LED package.



SM1204

Miniature 1204 industry standard right angle mounting SMD LED package.



SM1206

Miniature 1206 industry standard SMD LED package.



SM1210

Miniature 1210 industry standard SMD LED package.

Through Hole

Industry standard high quality Through Hole LEDs for individual use or with Bivar Light Pipes.



1.8MM

Industry standard 1.8mm small footprint package.



3MM (T-1)

Industry standard 3mm (T-1) package.



5MM (T-1 3/4)

Industry standard 5mm (T-1 3/4) package.



7.6MM Square

Industry standard 7.6mm square package.



Rectangular

Industry standard rectangular package.

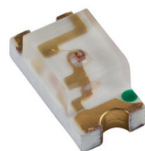
Ultraviolet UV

Industry standard high quality SMD and Through-Hole UV-A LEDs.



SM0603

Miniature 0603 industry standard SMD LED UV package.



SM1206

Miniature 1206 industry standard SMD LED UV package.



UV3TZ

3mm (T-1) industry standard tight tolerance Through-Hole LED UV package.



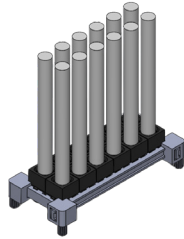
UV5TZ

5mm (T-1 3/4) industry standard tight tolerance Through-Hole LED UV package.

MODULAR LIGHT PIPE SYSTEM

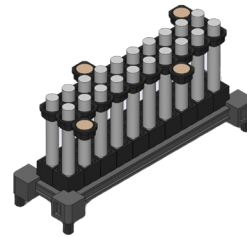
Modular Light Pipe System

Improves how your device communicates with users. The patent-pending configurable light pipe system offers precision bezel alignment, taking communication beyond what other solutions can offer.



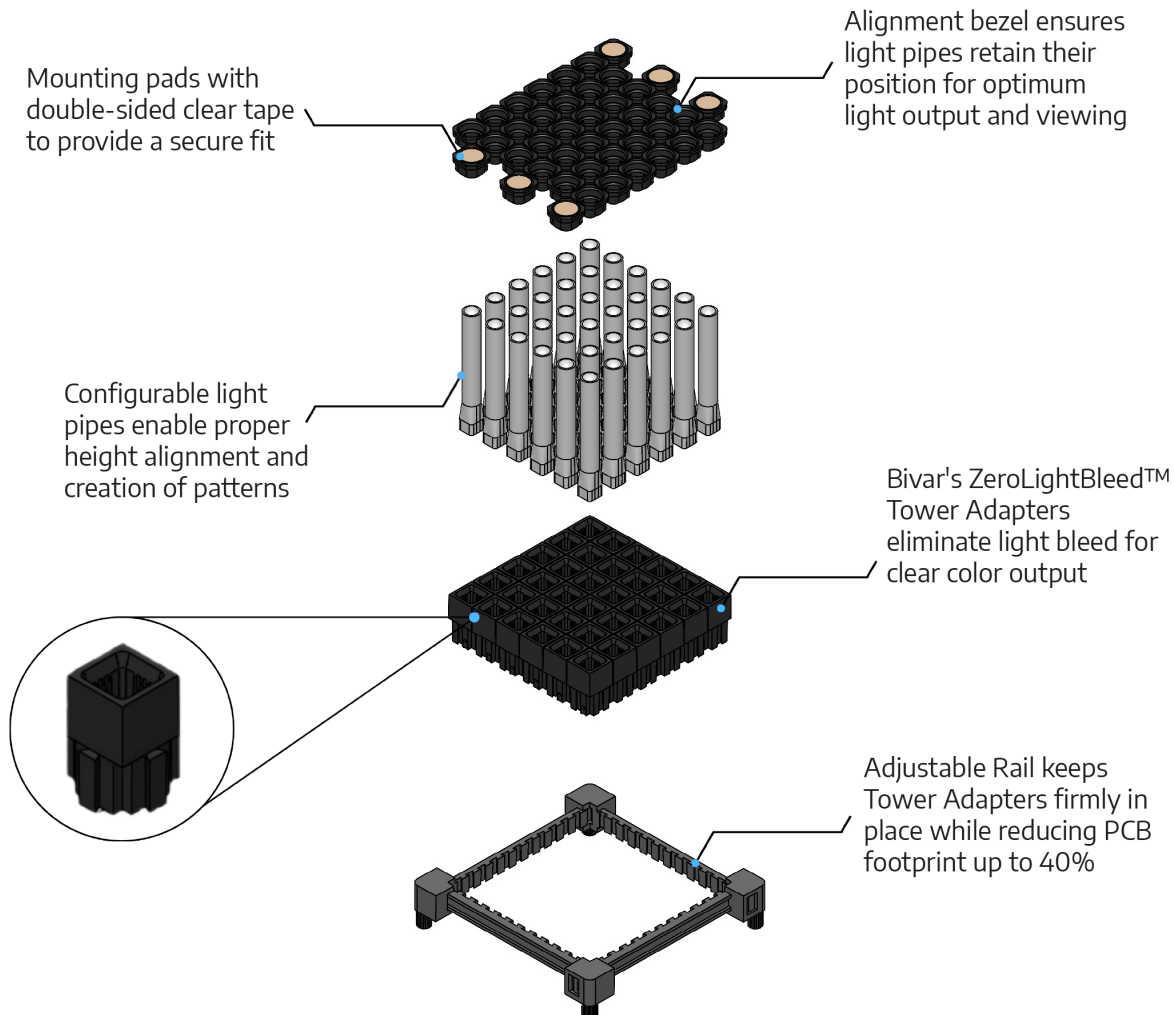
MLPS-RT

The MLPS-RT Rail and Tower design combines an adjustable rail with ZeroLightBleed adapter technology resulting in a highly efficient light pipe system. The compact MLPS-RT PCB footprint saves valuable space while maximizing light output.



MLPS-RTB

With Rail, Tower, and precision Alignment Bezel, MLPS-RTB, gives you the ultimate in modular light pipe system for device communication. It provides single part number convenience, along with ease of installation and the ability to personalize using Bivar's light pipe system configurator.

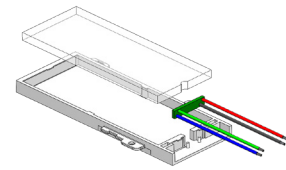
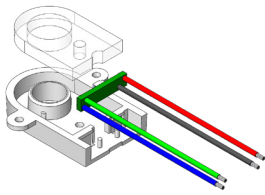


II SURFACE AREA LIGHT GUIDES

Light Guides

Surface Area Light Guides from Bivar are designed to bring the distinctive LED lighting seen in consumer and automotive applications to OEM enclosure, equipment, and device designs. These cutting-edge light guides combine light pipe technology, lensing, and control techniques to uniformly illuminate surface areas in a space-saving design.

Bivar's high reliability PLCC surface mount LEDs onboard ensure vibrant color output, attractive appearance, and long-lasting performance. With color-coding and functional effects such as flashing, sequential blinking, and patterns, these light guides offer eye-catching illumination that enhances information delivery while improving guidance and safety.

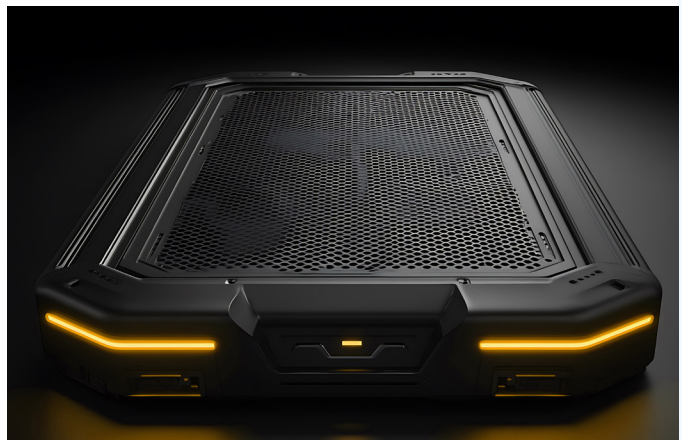


SAC

Circular shaped surface area light guides feature a high quality RGB light engine and are available in two sizes. SAC provides easy product installation with several mounting options including mounting screw and adhesive attachment.

SAR

Rectangular shaped surface area light guides feature a high quality RGB light engine and are available in two sizes. SAR provides easy product installation with several mounting options including snap, slide-in, mounting screw, and adhesive attachment.



SASG

Surface Area Side Glow Light Guides are designed for seamless integration near essential sensors and controls. They are ideal for applications that demand discreet yet effective LED edge side-lighting. Critical system status information can be relayed visually in real time, making these guides a crucial element for user interface design.

Panel and Circuit Board LED Indicators

Bivar has a large selection of panel mount indicators and circuit board indicators that can fit into your design requirement. Available in all type of sizes, colors, profiles, voltage, wavelengths, and more, check them out at our website today.

www.bivar.com/led-indication/panel-mount-indicators/

www.bivar.com/led-indication/circuit-board-indicators/



LED Mounts

If precision is what your design requires, Bivar has what you want in a large selection of panel mount clips and rings, including extruded and molded self-retaining LED mounts. Feeling extra exacting? Custom designs available!

www.bivar.com/led-indication/led-mounts-holders/



Circuit Board Hardware

Got a bit of a challenge? Nope, not when you've got Bivar. We offer vertical or horizontal circuit board card guides for everything from basic to the most challenging applications and environments. PCB mounting options include everything from low profile to static sensitive and increased retention for those high vibration installations.

www.bivar.com/circuit-board-hardware-overview/



Component Hardware

It's like a bouncer for your circuit boards. Don't let vibration or electrical transmissions threaten the integrity of your circuit boards and components. Position and protect them with PCB Standoffs/Supports from Bivar. Our design accommodates standard screw sizes in firm-retaining and self-retaining options.

www.bivar.com/component-hardware-overview/





CONTACT US

Address: 4 Thomas Irvine, CA 92618

TEL: 1-800-767-3652

Web: www.bivar.com

E-Mail: sales@bivar.com

Q-FLEX

Avantintie 7, FI-21420 Lieto

+358 2 4894 500

info@q-flex.fi | q-flex.fi

BIVAR