PLPC1 Panel Press-Fit Rigid Light Pipe - Theater Lighting Systems

Application Details
A leading portable stage lighting customer needs LED status indicators vertically positioned on a new version of a handheld remote-control unit. The handheld remote-control was relatively small presenting the designer with tight space constraints when positioning the surface mount LED inside the narrow remote-control casing.

Application Requirements
Due to the customer’s limited panel space and tight placement space inside the case the customer needs the smallest off-the-shelf light pipe and a smooth flush lens for a sleek exterior case profile. For fit and compatibility, a small footprint surface mount LED is needed. The LED should provide moderate brightness without causing distraction in dark stage areas.

Solution & Product Selection
A Panel Press-Fit Rigid Light Pipe was determined to be the best light pipe solution for the customer’s requirements. After reviewing the extensive standard product options, customer chose the PLPC1 series due to its very small 1mm lens diameter and unique flush mount countersink design.

Next, a surface mount LED was chosen for the design. The Bivar SM0402 series ultra-miniature package was selected as an ideal low-power match for this application. The water-clear lens enables adequate light output that is not too bright, avoiding distraction in the dark stage environment.

All-in-all: Meeting the need
Working with a very short window for first article approval, samples of a custom light pipe assembly were provided for test and final approval within 48 hours of receipt of the signed customer approval drawing. Bivar’s ability to meet a unique design challenge with a cost effective custom solution incorporating standard products allowed the customer to meet their demanding schedule. The first order for 10,000 units was placed with 72 hours of final approval.

Have a technical question? Need to talk to an engineer?
Our engineering team is here to help answer any questions you may have.