



SMD\_4 Series

## Project

Programmable power unit

## Application Characteristics

Next generation DC power supplies are designed to deliver exceptional load transient response, low noise, and the highest power density in the industry. The power density is often enhanced by a stylish front air intake that allows the units to be stacked without any required clearance between the power supplies.



DC power supply units offer essential features like 10- turn potentiometers for setting voltage and current, 3.5 digit LED readout plus front panel over-voltage protection (OVP) preview/adjustment and reset.

Many advanced power supplies combine onboard intelligent controls with the standard power electronics common to all units. These controls enable sophisticated sequencing, constant power mode and save/recall of instrument settings. Vacuum fluorescent graphical displays can communicate in some eight languages, and the units typically feature context sensitive “soft” keys and front panel keyboard that simplifies programming.

The DC power supplies are ideal for customers requiring simple front panel analog controls or external control.

## Application Requirements

Power supply units with a front air intake do not typically have room on the PCB for front panel mount LEDs. As a result, the application required light pipes to transmit light from the surface mount LED to the front of the panel.



The low-profile light pipe needed to be flush with the panel, and ensure easy panel removal/installation.

## Light Pipe Provided

VCC's light pipes provide an easy method for transmitting light from board-mounted LEDs to a front panel. The panel flush low profile LPCM Series light pipe features a panel flush design that blends in until light is emitted. Made from an optical grade acrylic that maximizes light transmission. The LED is effectively matched to the LPCM light pipe to maximize the brightness with a minimal light loss.



LPCM Series



SMD Series

- Low profile - flush with the panel
- Optical grade acrylic - maximizes light transmission
- Minimal light loss

Start a Conversation with one of our Technical Engineers Today!

# Case Study

## LPCM Series

The LPCM Series light pipe simplifies installation and maintenance by enabling efficient production assembly and easy panel removal. The light pipe mates to any PCB using a LED mount socket for circuits boards.

The LPCM Series light pipe is available in standard lengths of .300" to 1.20", with custom lengths available upon request, the LPCM Series light pipe



- **Mounting** - board mount (use SMD\_4 LED mounting socket)
- **Material** - acrylic (clear optical grade) UL 94-HB
- **Diameter** - Light pipe diameter 0.173"
- **Accessories** - RTN150 retainer for high-vibration environments



RTN Series



SMD\_4 Series

SMD Series is a surface LED mounting socket for circuits boards. It provides unique contact design permits automatic adjustment to the various sized and shapes of LED leads. SMD series mount horizontally and are relampable (no direct soldering to the LED).



## Results & Benefits

The LPCM Series light pipe is a cost effective solution for bringing light from board to the user panel for indication. The rugged LED light pipe offers uniform illumination, reduces shadowing, and eliminates glare.

Offering easy installation and maintenance, a standard or custom LED light pipe from VCC delivers an efficient lighting solution with a lower cost and lead time.



## Value-added Service

VCC understand the importance of visual communications and brings value to your design challenge. VCC becomes an extension of your design team and can provide technical advice and value to your design challenge.



Are you ready for next level illuminated components?