

Photonic Power Module

PPM-5



Key Features

- Complete power delivery system using only fiber optic cable
- Supports 750 to 850 nm and 900 to 1000 nm wavelength range delivering 0.5 to 1 W over 0.5 km of multi-mode fiber
- 5 V DC input, 5 V DC output
- Supports common fiber sizes: 62.5 or 100 μm
- Laser power and temperature monitoring interface
- Easy interfacing for designers

Applications

- Electronic circuits operating in:
 - high RF, EMI, and magnetic fields
 - high voltage environments
 - extreme environmental conditions
- Sensors, gauges, and actuators
- Data communication transceivers
- GPS and wireless receivers
- Current transducers in high-voltage environments

The JDSU PPM-5 Photonic Power Module is an integrated power system that delivers electrical power to another location carried only by light over fiber. This electrically-isolated power source can drive electronics in locations that are hazardous, electrically-noisy, remote, inaccessible, or exposed to extreme weather.

JDSU's unique solution enables optical energy from a self-contained laser diode module to deliver light via fiber to a photovoltaic power converter for conversion to electrical energy. Power input to drive the laser is 5 V DC. Converter output is 5 V DC. The PPM-5 can deliver up to 0.5 to 1 W of electrical power in the 750 to 850 nm and 900 to 1000 nm range depending on the laser source selected. Power can be delivered over distances of 0.5 km or greater using 62.5 or 100 μm multi-mode fiber.

The PPM-5 provides interfaces to monitor laser power and temperature. The module is designed for easy heat sinking and for simple pinout for daughter board or ribbon cable connection.

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. JDSU reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDSU makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDSU for more information. JDSU and the JDSU logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. ©2006 JDS Uniphase Corporation. All rights reserved. 30137400 Rev. 001 03/06 PPM5.DS.PP.AE