Colorlight

OP4

## Fiber Optic Transceiver

Specification V1.1
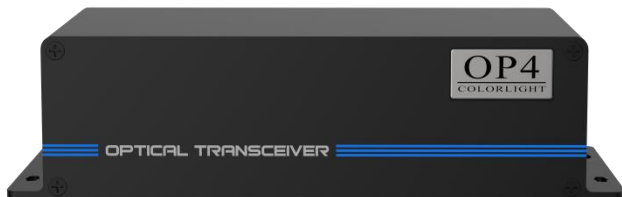
CONTENTS

01 INTRODUCTION

1.1 Overview

OP4 is a fiber optic transceiver specifically designed for long-distance transmission in LED display applications. Its compact and lightweight design ensures easy installation, whether inside or at the rear of an LED display cabinet. Additionally, all its ports are conveniently located on one side, simplifying the cabling process.

OP4 excels in providing long-distance transmission, impressive operational stability, and bi-directional optical-electrical conversion with no configuration required. Thanks to its versatile features, it is widely used in various sectors, including broadcast television, data centers, and monitoring centers.

1.2 Ports
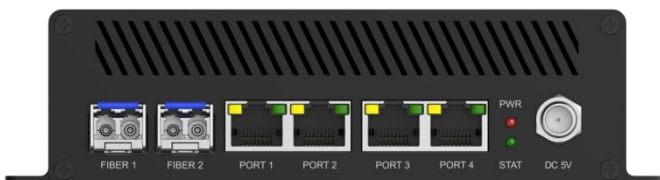
No.	Name	Description
1	FIBER1/FIBER2	2 × LC-LC fiber optic ports, with a transmission rate of 2.5Gb/s per port
2	PORT1~4	4×RJ45 Gigabit Ethernet ports for data transmission
3	DC 5V	Power inlet, with a locking power adapter included

Note: It is recommended to use 9/125μm single-mode LC-LC fiber optic cables with PC or UPC connectors.

02 FEATURES

- 2×fiber optic ports, with a transmission rate of 2.5Gb/s per port
- 4×RJ45 Gigabit Ethernet ports, with a transmission rate of 1Gb/s per port
- Includes a single-mode dual-core LC optical module, with a transmission distance up to 2km
- Specifically designed for LED control systems, offering high synchronization and stability
- Self-adapting bi-directional conversion between optical and electrical signals
- Hot-swappable and plug-and-play operation with no driver installation or configuration required
- Single-mode dual-core mode operation
- Supports paired mode or standalone mode (the latter requires a processor with fiber ports)
- Front-to-rear ventilation design ensures efficient heat dissipation, making OP4 suitable for high-temperature and enclosed environments
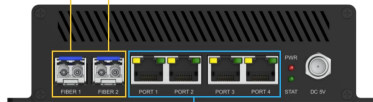
03 APPLICATIONS

Gigabit Ethernet cable
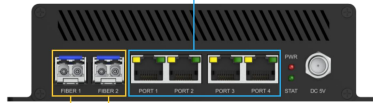
Fiber optic cable

Gigabit Ethernet cable

04 SPECIFICATIONS

Model		OP4
Optical module	Transmission rate	2.5Gb/s
	Specifications	• Connector type: Duplex LC • Wavelength: 1,310 nm • Transmission distance: 2km
Electrical specifications	Power supply	Power adapter • Input: AC 100~240V, 50/60Hz • Output: DC 5V
	Power consumption	15W
Operating environment	Temperature	-20℃~70℃/-4°F~158°F
	Humidity	0%RH~80%RH, non-condensing
Storage environment	Temperature	-25℃~80℃/-13°F~176°F
	Humidity	0%RH~90%RH, non-condensing
Device specifications	Dimensions (W×H×D)	170.8 mm×45.0 mm×82.5 mm/6.7''×1.8''×3.2''
	Net weight	0.3kg/0.7lbs

05 DIMENSIONS

Unit: mm
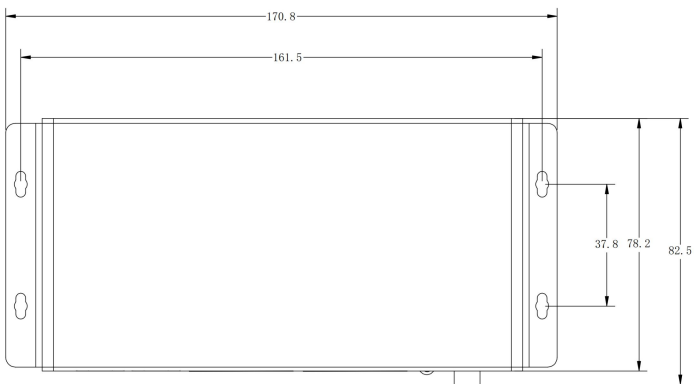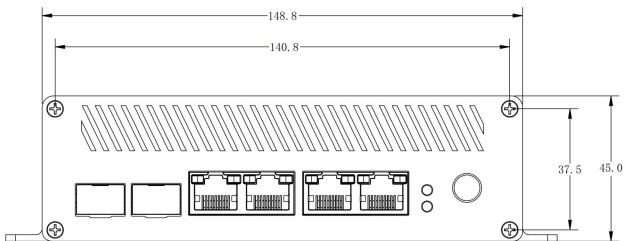
06 STATEMENT

Copyright © 2025 Colorlight Cloud Tech Ltd. All rights reserved.

No part of this document may be copied, reproduced, transcribed, or translated without the prior written permission of Colorlight Cloud Tech Ltd., nor be used for any commercial or profit-making purposes in any form or by any means.

Colorlight The logo is a registered trademark of Colorlight Cloud Tech Ltd.

Without written permission of the company or the trademark owner, no unit or individual may use, copy, modify, distribute, or reproduce any part of the above and other Colorlight trademarks in any way or for any reason, nor bundle them with other products for sale.

Due to possible changes in product batches and production processes, the text and pictures in the document may be adjusted and revised to match accurate product information, specifications, and features. Colorlight may make improvements and changes to this document without prior notice. Please refer to the actual product.

Thank you for choosing Colorlight Cloud Tech Ltd product. If you have any questions or suggestions during use, please contact us through official channels. We will do our utmost to provide support and listen to your valuable suggestions. For more information and updates, please visit www.colorlightinside.com or scan the QR code.

Colorlight