

HDMI 2.0 Fiber Optic Module





Copyright © 2023 Pixelhue Technology Ltd. All Rights Reserved.

No part of this document may be copied, reproduced, extracted or transmitted in any form or by any means without the prior written consent of Pixelhue Technology Ltd (hereinafter referred to as PIXELHUE).

Trademarks



PIXELHUE is a trademark of Pixelhue Technology Ltd.

Brand and product names mentioned in this manual may be trademarks, registered trademarks or copyrights of their respective holders.

Statement

Thank you for choosing PIXELHUE products. This document is intended to help you understand and use the products. PIXELHUE may make improvements and/or changes to this document at any time and without prior notice. If you experience any problems in use or have any suggestions, please contact us via the contact information given in this document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

This document could contain technical inaccuracies or typographical errors. Changes are periodically made to the information in this document; these changes are incorporated in new editions of this document.

The latest edition of user manuals can be downloaded from the PIXELHUE website www.pixelhue.com.

www.pixelhue.com ii

Introduction

The fiber optic HDMI 2.0 transmitter and receiver module supports the transmission of 4K60Hz resolution audios and videos, with the transmission rate of 18Gbps (6Gbps/CH). The module is downward compatible with 4K30Hz/1080p/720p. With the built-in advanced micro diffraction optical system, using wavelength division multiplexing technology, the module achieves high-definition video and audio transmission through a single LC multimode fiber. The easy and fast production and operation, convenient assembly, stable performance can meet the customer's rapid production needs.

The module is mainly used for HD video and audio data transmission between players with HDMI connectors and computers and HD TVs, monitors, projectors and other devices with HDMI connectors, thus becomes the ideal cable solution for applications such as digital home theaters, HD video conference systems, conference rooms, auditoriums, outdoor advertising, security cameras and more.



Features

- Wavelength division multiplexing technology to achieve HD video and audio transmission through one LC multimode fiber
- Built-in advanced micro diffraction optical system
- Easy and fast production, mass productivity ability, ease of use, anti-interference and good operability
- 300 m lossless transmission over OM4 fiber
- TMDS signal transmission through one multimode optical fiber, with good anti-interference performance
- HDCP/DDC/CEC transmission
- Hot-swapping

www.pixelhue.com 1

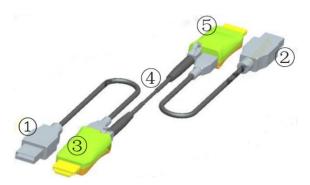
Specifications

Supported Protocols	HDMI 2.0, compatible with HDMI 1.4	
Resolution	4K60Hz/4K30Hz/1080p/1080i/720p	
Transmission Rate	18 Gbps (6 Gbps/CH)	
Operating Temperature	-20°C to 70°C	
Storage Temperature	-40°C to 85°C	
Power Supply	TX: 5V (when the power supply of the HDMI connector is insufficient, powered by the Micro USB connector) RX: 5V, powered by Micro USB connector	
Туре	HDMI Type-A	
Max. Transmission Distance	300 m (using OM4 fiber) Note: The final transmission distance is subject to the measured distance of the customer's cable.	
Cable Specification	850nm 50/125um OM4 LC-LC multimode fiber (single fiber)	

Notes:

- 1) Please use fiber optic cleaning pen to clean the fiber optic connector and fiber optic end before use.
- 2) If the snow, flicker, black screen and other abnormalities occur after you connect the adapter (extension cable) to the TX end or RX end, the test results of directly connecting the TX and RX ends to the player and TV shall prevail.

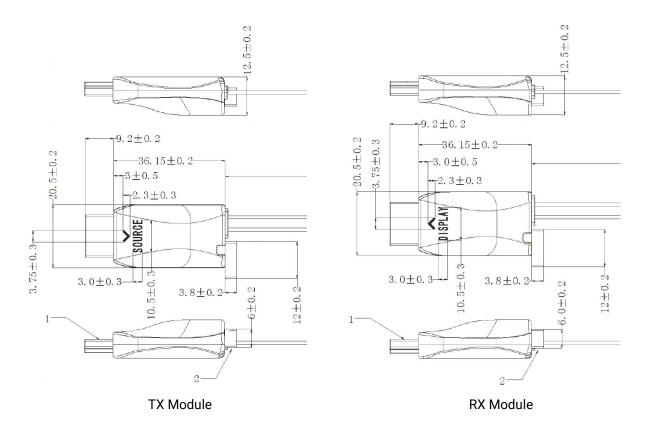
Connection Diagram



- 1)2) Connect to an external USB 5V power supply
- 3) RX end, connect to the display device (TV/projector/monitor)
- 4) LC-LC multimode fiber
- 5) TX end, connect to the source (computer/DVD/play box)

www.pixelhue.com 2

Dimensions



Ordering Information

Model	Name	Description
AFA.MA200T1C	A200TXC_HDMI 2.0 single fiber transmitter (with power supply connector/gold-plated copper shell/blue head)	HDMI fiber optic module, HDMI 2.0, TX, LC single fiber with MIRCO-USB power supply connector, copper shell gold/blue connector
AFA.MA200T1C	A200RXC_HDMI 2.0 single fiber receiver (with power supply connector/gold-plated copper shell/blue head)	HDMI fiber optic module, HDMI 2.0, RX, LC single fiber with MIRCO-USB power supply connector, copper shell gold/blue connector

www.pixelhue.com 3