

# | POF extender

## POF-HDMI-TX/RX

### 1、 Brief Introduction

POF transmitter is a high-definition intelligent video extender. Using a digital uncompressed technology transmit lossless full HD images through POF fiber . It provides a fast Ethernet communication way via plastic optical fiber connections. The resonator light-emitting diode provides a high level of optical coupling capability for plastic optical fibers, reducing the rise / fall delay of the optical signal and allowing the Ethernet signal to be transmitted in the plastic optical fiber.

The use of simple fiber optic transceivers and flexible plastic fiber, to minimize the communication system terminal equipment installation and construction costs. Not only to achieve point-to-point deployment, but also to expand the point of many-to-multipoint.



### 2 , Product Features

- POF interface technology
- use of plastic optical fiber transmission
- Support HDMI / RS-232 synchronous transmission
- Support 1080P60Hz, transmission distance of 100 meters

- Plug and play
- Front panel LED feedback real-time status

### 3 ,Parameters

Model	POF-HDMI-TX/RX
Name	POF extender
Transmission Protocol	KENS-NET
Transmission medium	POF fiber. Φ2.2mm diameter dual-core plastic cable, the core material PMMA, wavelength 650nm
Transmitter (CT)	input: 1×HDMI, 1×RS-232, output 1×POF
Receiver (CR)	input: 1×POF, output: 1×HDMI, 1×RS-232
Max resolution	1080P3D@60Hz
Transmission rate	100Mbps
Transmission distance	100m
Standard protocol	HDMI1.4、DVI1.0、HDCP
Dimension(mm)	102mm/25mm/79mm(W/H/D)
Weight	240g
Operating temperature	0~50℃
Power supply	DC+12V/2A (external)

## II SI-POF Plastic fiber

### 1、Product introduction

Plastic Optical Fiber. Plastic optical fiber (POF) is made of highly transparent polymer such as polystyrene (PS), polymethyl methacrylate (PMMA), polycarbonate (PC) as core material, PMMA, fluorine plastic and so on. Class fiber (optical fiber). Different materials have different light attenuation properties and temperature applications. There are two main materials for making POF: one is polymethyl methacrylate polymer PMMA (Polymer Polymethylmethacrylate); the other is fluoropolymer (Perfluorinated polymers). Plastic fiber can be used not only for the last 100 to 1000 meters of the access network, but also for a variety of vehicles, aircraft and other means of delivery, is excellent short distance data transmission medium.



## 2、 Technical standard

Core material	PMMA
Cortical material	Fluorine resin
Fiber core diameter	980 $\mu\text{m}\pm 45\mu\text{m}$
Fiber cladding diameter	1000 $\mu\text{m}\pm 45\mu\text{m}$
Fiber optic cable diameter	(2.2 $\pm 0.1$ )mm $\times$ (4.4 $\pm 0.2$ )mm
Sheath material	Flammability PE
Sheath color	black
Minimum bending radius	25 mm
tensile strength	$\leq 140\text{N}$
Flammability rating	UL Grade VW-1
Attenuation@650nm	150 ~ 180dB/km
Numerical aperture	0.46

Cable weight	8 g/m
Operating temperature °C	- 50°C ~ 70°C