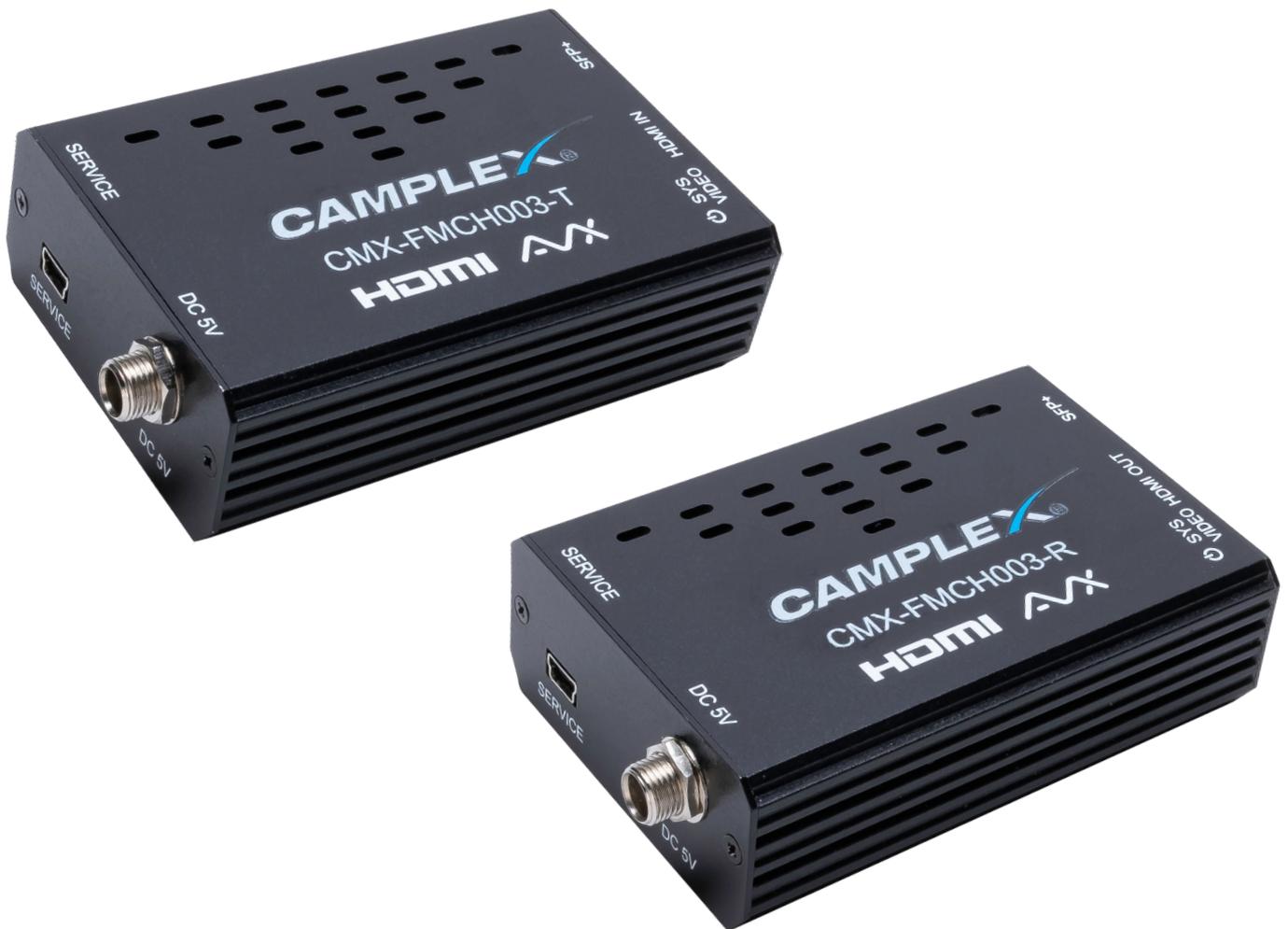




User Manual and Specifications

CMX-FMCH003

4K60 HDMI over Fiber Extender Set





SPECIFICATIONS

TX

Interfaces

Input Port	1 HDMI (Type A)
Output Port	1 10GbE LAN (SFP+)
Bi-directional Port	
Control I/O	1 USB (Mini-B)

Video

HDMI Compliance	HDMI 2.0 (DVI 1.0)	
HDCP Compliance	2.2	
Input Signal Types	4K@60 YUV 4:4:4	
Output Signal Types	4K@60 YUV 4:4:4	

		Resolutions
Maximum Input	HDMI	4096×2160p@60 YUV 4:4:4
Maximum Output	SFP+ (Streaming)	4096×2160p@60 YUV 4:4:4

Audio

HDMI	LPCM (8 Channels), Bitstream, High Bit Rate Bitstream
------	---

Power

Power Supply	5V/2.6A DC (Locking)
Power Consumption	TBD

Enclosure

Chassis Material	Metal (Steel)
Chassis Color	Black
Dimensions (W×H×D)	57mm×20.6mm×87mm [Case Only] 60mm×20.6mm×87mm [All Inclusive]
Weight	139g

RX

Interfaces

Input Port	1 10GbE LAN (SFP+)
Output Port	1 HDMI (Type A)
Bi-directional Port	
Control I/O	1 USB (Mini-B)

Video

HDMI Compliance	HDMI 2.0 (DVI 1.0)
HDCP Compliance	2.2
Input Signal Types	4K@60 YUV 4:4:4
Output Signal Types	4K@60 YUV 4:4:4

	Resolutions
Maximum Input	LAN (Streaming)4096×2160p@60 YUV 4:4:4
Maximum Output	HDMI4096×2160p@60 YUV 4:4:4

Audio

HDMI	LPCM (8 Channels), Bitstream, High Bit Rate Bitstream
------	---

Power

Power Supply	5V/2.6A DC (Locking)
Power Consumption	TBD

Enclosure

Chassis Material	Metal (Steel)
Chassis Color	Black
Dimensions (W×H×D)	57mm×20.6mm×87mm [Case Only] (W×H×D)60mm×20.6mm×87mm [All Inclusive]
Weight	139g

INTRODUCTION

The Camplex CMX-FMCH003 extender set is designed for high quality 4K AV extension over Single Mode or Multimode fiber (SFP+ dependent) with very minimum latency. The compact size of the units allows for greater flexibility during installation. Supports all HDMI 2.0 formats including multichannel PCM, Dolby True HD and DTS HD master audio.

APPLICATIONS

- A/V Extension Without RF Interference
- Long Distance Data and Video Transmission
- Household Entertainment, Lecture Halls, Meeting Rooms and Classrooms
- Point to Point Secure Video Conference

FEATURES

- Point-To-Point Extension of Audio, Video, and Control Signals
- Supports a Full Range of Formats Including 4K60 RGB/4:4:4, HDR10, 3D and Broadcast-Friendly 4K60 10-Bit 4:2:2
- Extension Up To 30km (SFP+ Module Dependent)
- Supports Single Mode or Multimode Fiber (SFP+ Module Dependent)
- Supports Pass-Through of 10/12-Bit HDR Sources
- Signal Transmission Interfaces With 10-Gigabit Ethernet Switches Via XFI
- (IEEE 802.3ae) Compatible 10-Gigabit Ethernet Connector

PACKAGE CONTENTS

- 1x UHD HDMI over Fiber Transmitter
- 1x UHD HDMI over Fiber Receiver
- 2x 5V/2.6A DC Power Adapter
- 2x Shockproof Feet (Set of 4)

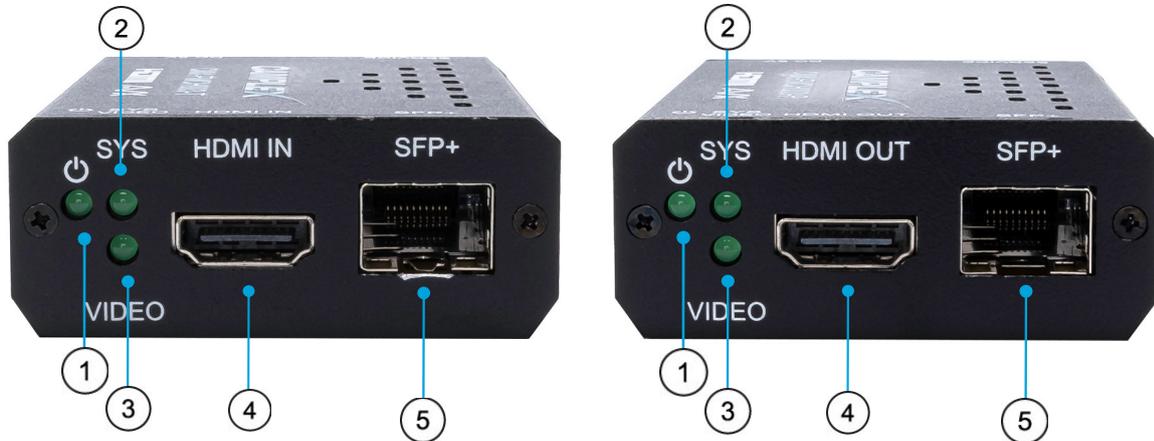
NOTE: SFP Modules Sold Separately

SYSTEM REQUIREMENTS

- HDMI source equipment such as a media player, video game console, PC or set-top box
- Compatible fiber-based receiver
- IEEE 802.3ae compatible SFP+ fiber module supporting a dual-optical fiber connection style, such as LC, or a pre-terminated crossover dual-optical fiber cable

Operation Controls and Functions

Front Panel:



- 1. Power LED:** This LED will illuminate to indicate the unit is on and receiving power
- 2. System LED:** This LED will illuminate to indicate that the system is stable and ready to process audio/video streams
- 3. Video LED:** This LED will illuminate to indicate that the video source is stable, and streaming is in process
- 4. HDMI IN / OUT Port:** Connect source such as media player, game console or set-top box to HDMI in; connect a display or projector to the HDMI out.
- 5. SFP Port:** Insert a standard SFP+ module and connect the appropriate optical cable to allow data transmission to a compatible receiver

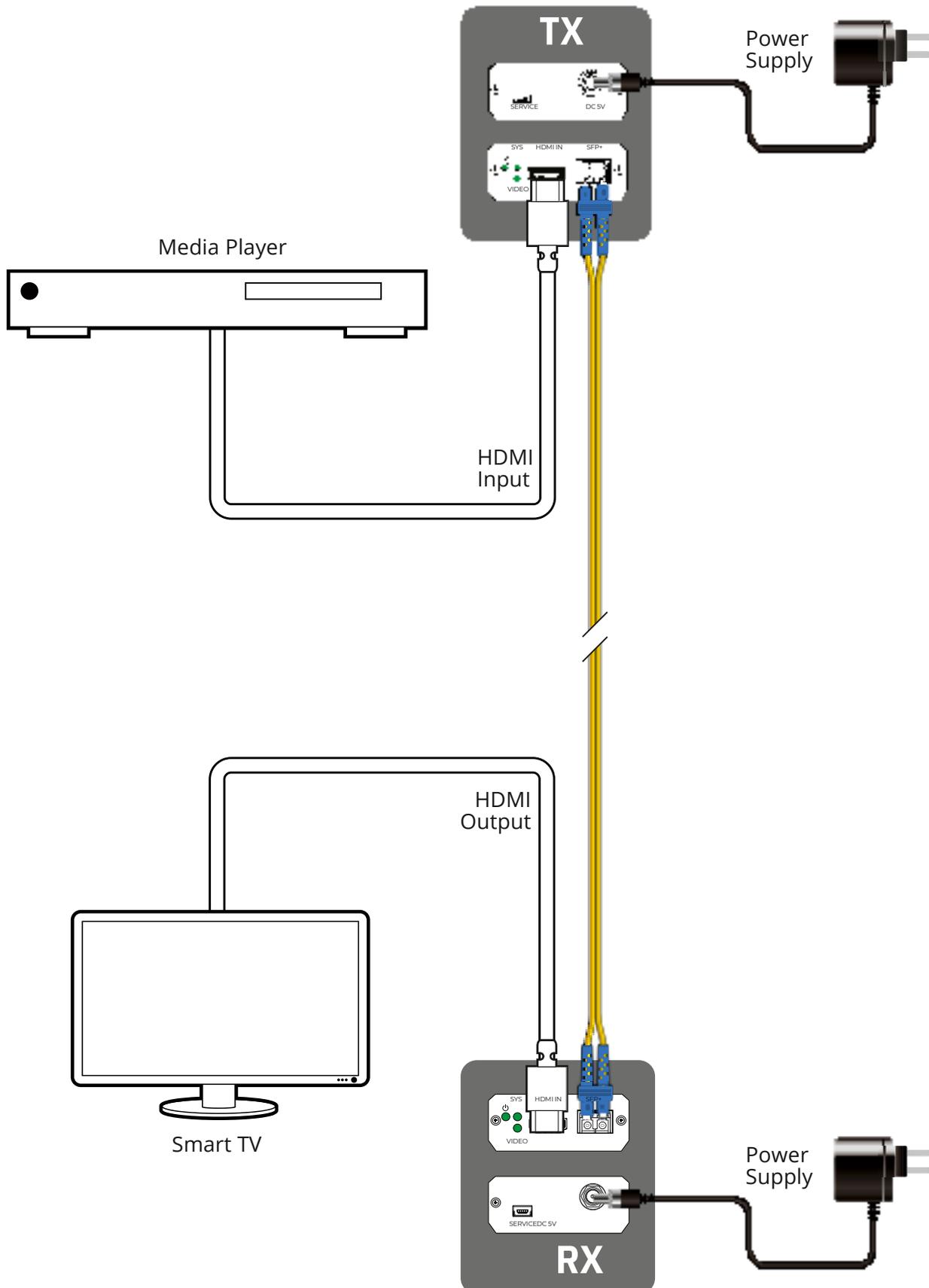
Rear Panel:



- 1. Service (USB Mini-B) Port:** Factory use only
- 2. DC 5V Port:** Plug the 5V DC power adapter into this port and connect it to an AC wall outlet for power

NOTE: SFP Modules Sold Separately

Connection Diagram:



Video Specifications Supported:

Supported Resolutions (Hz)

720x400p@70/85
640x480p@60/72/75/85
720x480i@60
720x480p@60
720x576i@50
720x576p@50
800x600p@56/60/72/75/85
848x480p@60
1024x768p@60/70/75/85
1152x864p@75
1280x720p@60
1280x768p@60/75/85
1280x800p@60/75/85
1280x960p@60/85
1280x1024p@60/75/85
1360x768p@60
1366x768p@60
1400x1050p@60
1440x900p@60/75
1600x1200p@60
1680x1050p@60
1920x1080i@50/60
1920x1080p@24/25/30
1920x1080p@50/60
2560x1440p@60RB
2569x1600p@60RB
3840x2160p@24/25/30
3840x2160p@50/60 (4:2:0)
3840x2160p@24 HDR10
3840x2160p@50/60 (4:2:0) HDR10
3840x2160p@50/60
4096x2160p@24/25/30
4096x2160p@50/60 (4:2:0)
4096x2160p@50/60 (4:2:0) HDR10
4096x2160p@50/60

Audio Specifications Supported:

- Supports 8 channels of LPCM audio at sample rates of 32, 44.1, 48khz
- Standard & High Definition Bitstream supported

Cable Specifications Supported:

<i>HDMI Resolution</i>	<i>1080p</i>	<i>1080p</i>	<i>4K30</i>	<i>4K60</i>
<i>Bit Rate</i>	<i>8-bit</i>	<i>12-bit</i>	<i>(4:4:4) 8-bit</i>	<i>(4:4:4) 8-bit</i>
<i>HDMI Cable Length</i>	15m	10m	5m	3m

<i>Fiber Cable</i>	<i>Length</i>
Multimode Fiber (OM3)	300m (984 Feet)
Multimode Fiber (OM4)	550m (1804 Feet)
Single Mode Fiber	30km (18.6 Miles)

Bandwidth Category Examples:

1080p (FHD Video)

- Up to 1080p@60Hz, 12-bit color
- Data rates lower than 5.3Gbps or below 225MHz TMDS clock

4K30 (4K UHD Video)

- 4K@24/25/30Hz & 4K@50/60Hz (4:2:0), 8-bit color
- Data rates higher than 5.3Gbps or above 225MHz TMDS clock but below 10.2Gbps

4K60 (4K UHD+ Video)

- 4K@50/60Hz (4:4:4, 8-bit)
- 4K@50/60Hz (4:2:0, 10-bit HDR)
- Data rates higher than 10.2Gbps