

EX-56SZM

4K-HDR HDMI over Fiber Extender

User Manual



rev: 200507
Made in Taiwan

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INTRODUCTION

The **EX-56SZM 4K-HDR HDMI over Fiber Extender** boosts up your video/audio transmission distance up to 300m(984ft) over duplex LC multimode fiber optic cables & 10km(6.25miles) over single mode fiber optic cables in Ultra-HD 4K2K@60 format and with HDCP2.2 support. Users can readily extend Ultra-HD sources from DVD players, Blu-ray Disc player, PS3, PC, and any other HDMI sources broadcasting to distant display monitors including HDMI or DVI enabled TV sets or LCD PC monitors.

FEATURES

- Supports 4K2K@60 4:4:4 8bits
- Supports HDR¹, which is 4K2K@60 4:2:0 10bits²
- Supports HDCP2.2
- Extends HDMI signals up to 300m (984ft) over duplex LC multimode fiber optic cables & 10km (6.25miles) over single mode fiber optic cables
- Uncompressed video and audio for no quality loss
- LED indicator light for power, HDMI and SFP signal status
- Wall mounting housing design for easy and robust installation



1. HDR = High Dynamic Range.
2. The video bandwidth of 4K2K@60 4:2:0 10bits (HDR) is 384 MHz, and the 4K2K@60 4:4:4 8bits is 594MHz.
3. HDCP 2.2 & HDCP 2.3 are equivalent to end users

PACKAGE CONTENTS

- 1x EX-56SZM [TX & RX]
- 2x DC 5V
- 1x User Manual

SPECIFICATIONS

Model Name		EX-56SZM	
Technical			
Role of usage		Transmitter [TX]	Receiver [RX]
HDMI compliance		HDMI 2.0a	
HDCP compliance		HDCP 2.2	
Video bandwidth		Single-link 594MHz [18Gbps]	
Video support		HDR 4K2K@60 (4:2:0 10bits) / 4K2K@60 (4:4:4 8bits)	
HDMI over UTP		Yes	
Audio support		Surround sound [up to 7.1ch] or stereo digital audio	
Equalization		Auto	
Input TMDS signal		1.2 Volts [peak-to-peak]	
Input DDC signal		5 Volts [peak-to-peak, TTL]	
ESD protection		[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±8kV	
PCB stack-up		6-layer board [impedance control — differential 100Ω; single 50Ω]	
Input		1x HDMI	1x fiber
Output		1x fiber	1x HDMI
HDMI connector		Type A [19-pin female]	
Mechanical			
Housing		Metal enclosure	
Dimensions [L x W x H]	Model	63 x 71 x 22mm[2.5" x 2.8" x 0.9"]	
	Package	264 x 170 x 77mm[10.3" x 6.7" x 3"]	
	Carton	430 x 358 x 291mm[1'4" x 1'2" x 11.5"]	
Weight	Model	195g [6.9oz]	195g [6.9oz]
	Package	1140g [2.5lbs]	
Fixedness		Wall-mounting case with screws	
Power supply		5V2A	
Power consumption		Max 10W	
Operation temperature		0~40°C [32~104°F]	
Storage temperature		-20~60°C [-4~140°F]	
Relative humidity		20~90% RH [no condensation]	

PANEL DESCRIPTIONS

Transmitting unit ► EX-56SZM-TX



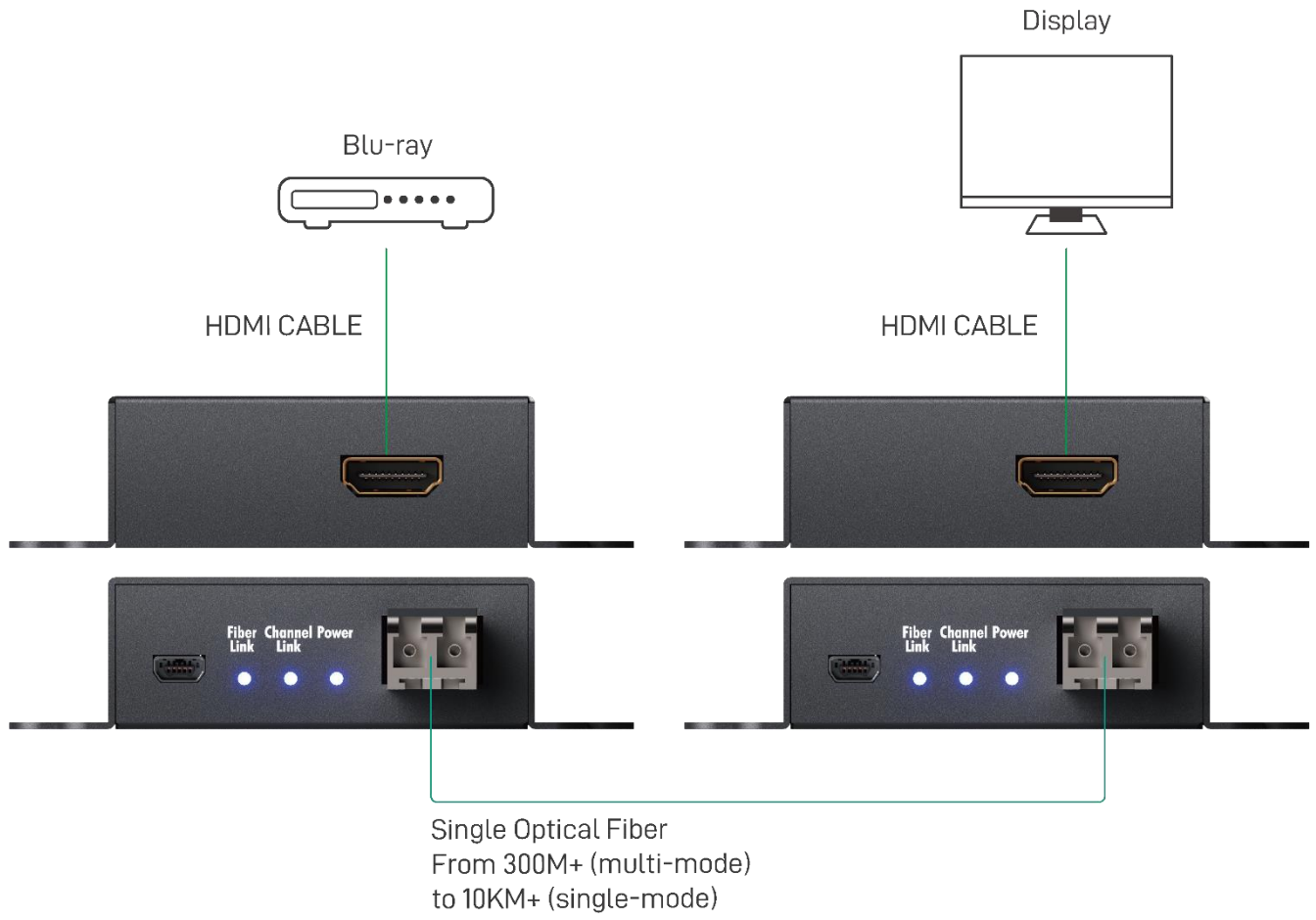
1. **HDMI IN:** Connect to a HDMI source with a HDMI male-male cable
2. **+5V DC/FW update:** Connect to a 5V power supply unit
3. **Module LED, Link LED, Power LED**
Module LED: LED is shine when fiber module connects to device
Link LED: LED is shine when fiber cable connects to device
Power LED: Power indicator LED
4. **SFP OUT:** Connect a duplex, LC terminated multimode fiber cable

Receiving unit ► EX-56SZM-RX

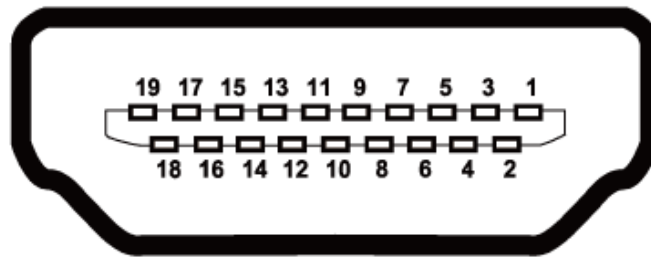


1. **HDMI OUT:** Connect to a HDMI display with a HDMI male-male cable
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Module LED: LED is shine when fiber module connects to device
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Power LED: Power indicator LED
4. **SFP IN:** Connect a duplex, LC terminated multimode fiber cable

CONNECTION DIAGRAM



HDMI PIN DEFINITION



Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	Pin 11	TMDS Clock Shield
Pin 2	TMDS Data2 Shield	Pin 12	TMDS Clock-
Pin 3	TMDS Data2-	Pin 13	CEC
Pin 4	TMDS Data1+	Pin 14	Reserved (N.C. on device)
Pin 5	TMDS Data1 Shield	Pin 15	SCL
Pin 6	TMDS Data1-	Pin 16	SDA
Pin 7	TMDS Data0+	Pin 17	DDC/CEC Ground
Pin 8	TMDS Data0 Shield	Pin 18	+5V Power
Pin 9	TMDS Data0-	Pin 19	Hot Plug Detect
Pin 10	TMDS Clock+		

WARRANTY

The SELLER warrants the **EX-56SZM 4K-HDR HDMI over Fiber Extender** free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the EX-56SZM features and specifications is subject to change without further notice.**