# HDMI 2.0 Fiber Extender Kit, Single Mode 500485

#### Overview:

The HDMI 2.0 Fiber Extender Kit, Single Mode (model: 500485) allows one HDMI 2.0 and one USB 1.1 channel to be transmitted up to 10km (6.25miles) at all resolutions up to 4K2K@60Hz over single mode fiber optic cable in a point-to-point configuration. In addition, the HDMI 2.0 Fiber Extender Kit, Single Mode is HDCP 2.2 compliant and supports IR and RS-232 pass-through and keyboard/mouse USB signal transmission.

# Applications:

- KVM applications
- Commercial and residential AV systems
- Classroom projector systems
- Boardroom systems
- Collaborative PC systems
- Medical information systems



### **Key Features:**

- Supports HDMI 4K @ 60fps (4:4:4 8bits)
- Supports HDR, which is 4K @ 60fps (4:2:0 10bits)
- Supports HDCP 2.2
- Extends HDMI signals up to 10km over single mode fiber optic cable
- Supports USB 1.1 for keyboard and mouse only
- Bi-directional IR pass-through
- Supports full frequency IR signal from 20KHz to 60KHz
- Includes wall-mount bracket kit

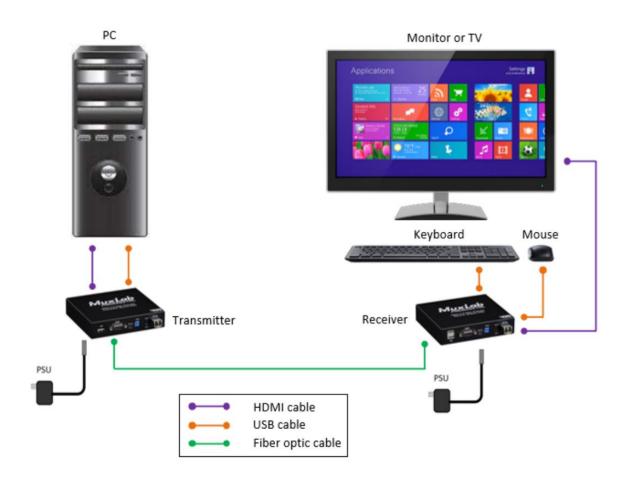
#### **Specifications**

HDMI compliance   HDMI 2.0a   HDCP 2.2   Video bandwidth   Single-link 594MHz [18Gbps]   Video support   HDR 4K2K @60 (4:2:0 10bits) / 4K2K @60 (4:4:4 8bits)   Audio support   Surround sound [up to 7.1ch) or stereo digital audio   Input TMDS signal   1.2 Volts [peak-to-peak]   Input DDC signal   5 Volts [peak-to-peak, TTL]   ESD protection   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]   PCB stack-up   Human bo	Specifications	
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)           Audio support         Surround sound [up to 7.1ch) or stereo digital audio           Input TMDS signal         1.2 Volts [peak-to-peak]           Input DDC signal         5 Volts [peak-to-peak, TTL]           ESD protection         Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]           PCB stack-up         4-layer board [impedance control — differential 100Ω; single 50Ω]           IR pass-thru         Bi-directional           RS-232 support         Yes           Input ports         Transmitter [TX] 1x HDMI, 1x 3.5mm         Receiver [RX] 1x fiber, 1x 3.5mm           Output ports         Transmitter [TX] 1x Kiber, 1x 3.5mm         Receiver [RX] 1x RB-232, 2xUSB           HDMI source control         Controllable via IR pass-through from RX to TX with IR extenders           HDMI connector         Type A [19-pin female]           USB connector         Type A [19-pin female]           USB connector         Transmitter [TX] IR receiver / IR blaster         Receiver [RX] IR receiver / IR blaster           Mechanical         Housing         Metal enclosure           Unit Dimensions (DxWxH)         Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)	Technical	
Video bandwidth         Single-link 594MHz [18Gbps]           Video support         HDR 4K2k@60 (4:2:0 10bits) / 4K2k@60 (4:4:4 8bits)           Audio support         Surround sound [up to 7.1ch) or stereo digital audio           Input TMDS signal         1.2 Volts [peak-to-peak]           Input DDC signal         5 Volts [peak-to-peak, TTL]           ESD protection         Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]           PCB stack-up         4-layer board [impedance control — differential 100Ω; single 50Ω]           IR pass-thru         Bi-directional           RS-232 support         Yes           Input ports         Transmitter [TX] 1x HDMI, 1x 3.5mm         Receiver [RX] 1x fiber, 1x 3.5mm           Output ports         Transmitter [TX] 1x fiber, 1x 3.5mm         Receiver [RX] 1x HDMI, 1x 3.5mm           In / Out ports         Transmitter [TX] 1x Res-232, 1x USB         Receiver [RX] 1x RDMI, 1x 3.5mm           In / Out ports         Transmitter [TX] 1x Research [RX] 1x R		HDMI 2.0a
Video support         HDR 4K2K@60 (4:2:0 10bits) / 4K2K@60 (4:4:4 8bits)           Audio support         Surround sound [up to 7.1ch) or stereo digital audio           Input TMDS signal         1.2 Volts [peak-to-peak]           Input DDC signal         5 Volts [peak-to-peak, TTL]           ESD protection         Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]           PCB stack-up         4-layer board [impedance control — differential 100Ω; single 50Ω]           IR pass-thru         Bi-directional           RS-232 support         Yes           Input ports         Transmitter [TX] 1x HDMI, 1x 3.5mm         Receiver [RX] 1x fiber, 1x 3.5mm           Output ports         Transmitter [TX] 1x fiber, 1x 3.5mm         Receiver [RX] 1x HDMI, 1x 3.5mm           In / Out ports         Transmitter [TX] 1x RS-232, 1x USB         Receiver [RX] 1x HDMI, 1x 3.5mm           In / Out ports         Transmitter [TX] 1x RS-232, 1x USB         Receiver [RX] 1x RS-232, 2x USB           HDMI connector         Type A [19-pin female]           USB connector         Type A [19-pin female]           USB connector         Type A [19-pin female]           Jose and the properties of the proper	HDCP compliance	HDCP 2.2
Audio supportSurround sound [up to 7.1ch) or stereo digital audioInput TMDS signal1.2 Volts [peak-to-peak]Input DDC signal5 Volts [peak-to-peak, TTL]ESD protectionHuman body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]PCB stack-up4-layer board [impedance control — differential 100Ω; single 50Ω]IR pass-thruBi-directionalRS-232 supportYesInput portsTransmitter [TX] 1x HDMI, 1x 3.5mmReceiver [RX] 1x fiber, 1x 3.5mmOutput portsTransmitter [TX] 1x fiber, 1x 3.5mmReceiver [RX] 1x HDMI, 1x 3.5mmIn / Out portsTransmitter [TX] 1x RS-232, 1x USBReceiver [RX] 1x RS-232, 2xUSBHDMI source controlControllable via IR pass-through from RX to TX with IR extendersHDMI connectorType A [19-pin female]USB connectorType A [19-pin female]3.5mm connectorTransmitter [TX] IR receiver / IR blasterReceiver [RX] IR receiver / IR blasterMechanicalMetal enclosureUnit Dimensions (DxWxH)Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)Unit WeightTransmitter [TX] 1.02 lbs (0.46Kg)Receiver [RX] 1.00 lbs (0.45Kg)Wall Mounting HardwareWall-mount bracket kit, with screwsPower consumptionMax 10WOperation temperature0~40°C [32~104°F]Storage temperature-20~60°C [-4~140°F]Relative humildity20~90% RH [no condensation]Warranty2 years	Video bandwidth	Single-link 594MHz [18Gbps]
Input TMDS signal   1.2 Volts [peak-to-peak]	Video support	HDR 4K2K@60 (4:2:0 10bits) / 4K2K@60 (4:4:4 8bits)
Input DDC signal   5 Volts [peak-to-peak, TTL]	Audio support	Surround sound [up to 7.1ch) or stereo digital audio
Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]     PCB stack-up	Input TMDS signal	1.2 Volts [peak-to-peak]
PCB stack-up   4-layer board [impedance control — differential 100Ω; single 50Ω]   IR pass-thru   Bi-directional   RS-232 support   Yes   Transmitter [TX] 1x HDMI, 1x 3.5mm   Receiver [RX] 1x fiber, 1x 3.5mm   Output ports   Transmitter [TX] 1x HDMI, 1x 3.5mm   Receiver [RX] 1x RD-1x 3.5mm   Re		
Rp-ass-thru   Bi-directional   RS-232 support   Yes	ESD protection	Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]
RS-232 support Input ports Transmitter [TX] 1x HDMI, 1x 3.5mm Receiver [RX] 1x fiber, 1x 3.5mm Output ports Transmitter [TX] 1x fiber, 1x 3.5mm Receiver [RX] 1x HDMI, 1x 3.5mm Receiver [RX] 1x RS-232, 2x USB Receiver [RX]	PCB stack-up	4-layer board [impedance control — differential $100\Omega$ ; single $50\Omega$ ]
Input ports Transmitter [TX] 1x HDMI, 1x 3.5mm Receiver [RX] 1x fiber, 1x 3.5mm  Output ports Transmitter [TX] 1x fiber, 1x 3.5mm Receiver [RX] 1x HDMI, 1x 3.5mm  In / Out ports Transmitter [TX] 1x RS-232, 1x USB Receiver [RX] 1x RS-232, 2x USB  HDMI source control Controllable via IR pass-through from RX to TX with IR extenders  HDMI connector Type A [19-pin female] USB connector Type A  3.5mm connector Transmitter [TX] 1R receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Medianical Housing Metal enclosure  Unit Dimensions (DxWxH) Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm) Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight Transmitter [TX] 1.02 lbs (0.46Kg) Receiver [RX] 1.00 lbs (0.45Kg)  Wall Mounting Hardware Power supply 12V2A  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] Warranty 2 years	IR pass-thru	Bi-directional
Output portsTransmitter [TX] 1x fiber, 1x 3.5mmReceiver [RX] 1x HDMI, 1x 3.5mmIn / Out portsTransmitter [TX] 1x RS-232, 1x USBReceiver [RX] 1x RS-232, 2xUSBHDMI source controlControllable via IR pass-through from RX to TX with IR extendersHDMI connectorType A [19-pin female]USB connectorType A3.5mm connectorTransmitter [TX] IR receiver / IR blasterReceiver [RX] IR receiver / IR blasterMechanicalMetal enclosureUnit Dimensions (DxWxH)Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)Unit WeightTransmitter [TX] 1.02 lbs (0.46Kg)Receiver [RX] 1.00 lbs (0.45Kg)Wall Mounting HardwareWall-mount bracket kit, with screwsPower supply12V2APower consumptionMax 10WOperation temperature0~40°C [32~104°F]Storage temperature-20~60°C [-4~140°F]Relative humidity20~90% RH [no condensation]Warranty2 years		1.44
In / Out ports  Transmitter [TX] 1x RS-232, 1x USB Receiver [RX] 1x RS-232, 2xUSB  HDMI source control  Controllable via IR pass-through from RX to TX with IR extenders  Type A [19-pin female]  USB connector  Type A  3.5mm connector  Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Mechanical  Housing  Metal enclosure  Unit Dimensions (DxWxH)  Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight  Transmitter [TX] 1.02 lbs (0.46Kg) Receiver [RX] 1.00 lbs (0.45Kg)  Wall Mounting Hardware  Power supply  12V2A  Power consumption  Max 10W  Operation temperature  -20~60°C [-4~140°F]  Storage temperature  Relative humidity  2 years	Input ports	Transmitter [TX] 1x HDMI, 1x 3.5mm Receiver [RX] 1x fiber, 1x 3.5mm
HDMI source control  HDMI connector  Type A [19-pin female]  USB connector  Type A  3.5mm connector  Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Mechanical  Housing  Metal enclosure  Unit Dimensions (DxWxH)  Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight  Transmitter [TX] 1.02 lbs (0.46Kg)  Wall Mounting Hardware  Power supply  12V2A  Power consumption  Max 10W  Operation temperature  Controllable via IR pass-through from RX to TX with IR extenders  Type A  Transmitter [TX] IR receiver / IR blaster  Receiver [RX] IR receiver / IR blaster  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Transmitter [TX] 1.02 lbs (0.46Kg)  Receiver [RX] 1.00 lbs (0.45Kg)  Wall-mount bracket kit, with screws  Power supply  12V2A  Power consumption  Max 10W  Operation temperature  -20~60°C [-4~140°F]  Storage temperature  -20~60°C [-4~140°F]  Relative humidity  2 years		
HDMI connector  Type A [19-pin female]  USB connector  Type A  3.5mm connector  Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Mechanical  Housing  Metal enclosure  Unit Dimensions (DxWxH)  Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight  Transmitter [TX] 1.02 lbs (0.46Kg) Receiver [RX] 1.00 lbs (0.45Kg)  Wall Mounting Hardware  Power supply  12V2A  Power consumption  Max 10W  Operation temperature  0~40°C [32~104°F]  Storage temperature  -20~60°C [-4~140°F]  Relative humidity  2 years	In / Out ports	Transmitter [TX] 1x RS-232, 1x USB Receiver [RX] 1x RS-232, 2xUSB
USB connector  3.5mm connector Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Mechanical Housing Metal enclosure  Unit Dimensions (DxWxH) Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm) Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight Transmitter [TX] 1.02 lbs (0.46Kg) Receiver [RX] 1.00 lbs (0.45Kg)  Wall Mounting Hardware Power supply 12V2A 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] Warranty 2 years		
3.5mm connector  Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster  Mechanical  Housing  Metal enclosure  Unit Dimensions (DxWxH)  Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)  Unit Weight  Transmitter [TX] 1.02 lbs (0.46Kg)  Wall Mounting Hardware  Power supply  12V2A  Power consumption  Max 10W  Operation temperature  0~40°C [32~104°F]  Storage temperature  -20~60°C [-4~140°F]  Relative humidity  2 years	HDMI connector	Type A [19-pin female]
Mechanical         Housing         Metal enclosure           Unit Dimensions (DxWxH)         Transmitter [TX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm) Receiver [RX] 4.9" x 4.4" x 1.1" (125mm x 112mm x 28mm)           Unit Weight         Transmitter [TX] 1.02 lbs (0.46Kg) Receiver [RX] 1.00 lbs (0.45Kg)           Wall Mounting Hardware         Wall-mount bracket kit, with screws           Power supply         12V2A           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]           Warranty         2 years		
Metal enclosure	***************************************	Transmitter [TX] IR receiver / IR blaster Receiver [RX] IR receiver / IR blaster
Unit Dimensions (DxWxH)	Mechanical	
Receiver [RX]		11101011 111010111
Unit Weight         Transmitter [TX] 1.02 lbs (0.46Kg)         Receiver [RX] 1.00 lbs (0.45Kg)           Wall Mounting Hardware         Wall-mount bracket kit, with screws           Power supply         12V2A           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]           Warranty         2 years	Unit Dimensions (DxWxH)	
Wall Mounting Hardware         Wall-mount bracket kit, with screws           Power supply         12V2A           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]           Warranty         2 years		
Power supply         12V2A           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]           Warranty         2 years		
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]           Warranty         2 years		
Operation temperature         0~40°C [32~104°F]           Storage temperature         -20~60°C [-4~140°F]           Relative humidity         20~90% RH [no condensation]           Warranty         2 years		1 1 1
Storage temperature         -20~60°C [-4~140°F]           Relative humidity         20~90% RH [no condensation]           Warranty         2 years		
Relative humidity     20~90% RH [no condensation]       Warranty     2 years	•	
Warranty 2 years		• •
	,	
Order Information 500485 HDMI 2.0 Fiber Extender Kit, Single Mode (UPC: 627699004852)	Order Information	500485 HDMI 2.0 Fiber Extender Kit, Single Mode (UPC: 627699004852)



# **HDMI 2.0 Fiber Extender Kit, Single Mode** 500485

# **Typical Application**





**Transmitter (Source Side)** 

Receiver (Display Side)

# © MuxLab Inc. 2022

HDMI 2.0 Fiber Extender Kit, Single Mode

# MuxLab Inc.

2321 Rue Cohen, Montreal, Quebec, Canada, H4R 2N7

Tel: (514) 905 0588 Fax: (514) 905 0589

Toll Free:1 877 689-5228 E-mail: info@muxlab.com www.muxlab.com