



The IDK NJR-01UHD is an HDMI network transmitter and receiver set for long distance transmission of HDMI signals over a fiber optic cable. This extender can transmit 4K@60 video signals that have four times the resolution of full HD, and it supports RS-232C bidirectional communication and LAN transmission. The NT-T01UHD/NT-R01UHD can be used not only as a set of transmitter and receiver but also as a transmitter or receiver of "IP-NINJAR" series. When NJR-T01UHD and NJR-R04HD are used together in a system, NJR-R04HD can output 4K video image as four 1080p signals. When NJR-R01UHD and NJR-T04HD are used together in a system, NJR-R01UHD can output four 1080p signals from NJR-T04HD as one 4K video image. It cannot be connected to OPF series units or FDX.

■ Specification

Item			Description				
Model number			NJR-T01UHD (Transmitter)	NJR-R01UHD (Receiver)			
Input	Video	HDMI / DVI	Number / Signal	1 input / HDMI (*1), DVI 1.0 - HDCP 1.4 / 2.2 - HDR(*2) - TMDS Single Link - Dot clock: 25 MHz to 600MHz - TMDS clock: 25 MHz to 300 MHz - TMDS data rate: 0.75Gbps to 18Gbps	1 inputs / Optical signal for extension		
			Connector	1 female HDMI Type A (*3)	2 LC connectors		
		Others	Color depth: 24bit, 30 bit, 36 bit Deep Color (*5)				
	Audio	Digital	Number / Signal	1 input / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample bit: 16 bit to 24 bit Reference level: -20 dBFS Max. input level: 0 dBFS	1 inputs / Optical signal for extension		
			Connector	1 female HDMI Type A (*3)	2 LC connectors		
		Analog	Number / Signal	1 input / Stereo LR balanced and unbalanced signals - Balanced signal Input impedance: 48 kΩ Reference level: -10 dBu Max. input level: +10 dBu - Unbalanced signal input impedance: 24 kΩ Reference level: -10 dBu Max. input level: +10 dBu	-		
			Connector	1 terminal blocks (5-pin)	-		
	Output	Video	HDMI / DVI	Number / Signal	1 outputs / Optical signal for extension	1 output / HDMI (*1), DVI 1.0 - HDCP 1.4 / 2.2 - HDR(*2) - TMDS Single Link - Dot clock: 25 MHz to 600MHz - TMDS clock: 25 MHz to 300 MHz - TMDS data rate: 0.75Gbps to 18Gbps	
				Connector	2 LC connectors	1 female HDMI Type A (*3)	
			Formats	Number / Signal	1 output / HDMI (*1), DVI 1.0 - HDCP 1.4 / 2.2 - HDR(*2) - TMDS Single Link - Dot clock: 25 MHz to 600MHz - TMDS clock: 25 MHz to 300 MHz - TMDS data rate: 0.75Gbps to 18Gbps	-	
Connector				1 female HDMI Type A (*3)	-		
Audio		Digital	Number / Signal	1 outputs / Optical signal for extension	1 output / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample bit: 16 bit to 24 bit Reference level: -20 dBFS Max. Output level: 0 dBFS		
			Connector	2 LC connectors	1 female HDMI Type A (*3)		
		Analog	Number / Signal	1 output / Stereo LR balanced and unbalanced signals - Balanced signal Output impedance: 100 Ω Reference level: -10 dBu Max. output level: +10 dBu - Unbalanced signal Output impedance: 50 Ω Reference level: -10 dBu Max. output level: +10 dBu	1 output / Stereo LR balanced and unbalanced signals - Balanced signal Output impedance: 100 Ω Reference level: -10 dBu Max. output level: +10 dBu - Unbalanced signal Output impedance: 50 Ω Reference level: -10 dBu Max. output level: +10 dBu		
			Connector	1 terminal blocks (5-pin)	1 terminal blocks (5-pin)		
			Fiber optic cable			Duplex fiber cable, SFP+ module (2 LC connectors)	
			Suitable cable			SFP+ for Multimode: PC (recommended)	
Polishing (*6)			SFP+ for Singlemode: UPC (recommended), SPC supported * APC is not supported				

● All specifications and drawings are subject to change without notice. ● Please do not use the supplied AC adapter and power supply cable for other products. ● The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and other countries. ● PLink is a trademark in Japan, the United States, and other countries/regions. ● HDBaseT™ and the HDBaseT Alliance Logo are trademarks of the HDBaseT Alliance. ● The terms Anti-snow and Connection Reset are registered trademarks of IDK Corporation in Japan ● IP-NINJAR is a registered trademarks of IDK Corporation. ● All other company and product names mentioned in this document are either registered trademarks or trademarks of their respective owners. In this document, the "®" or "™" marks may not be specified.

Signal transmission distance (*7)		Multimode fiber (OM3): 984 ft (approx.) / 300 m Singlemode fiber (OS1): 6.2 miles (approx.) / 10 km	
Control	Serial control port	Number / Signal	1 port / Full duplex up to 115.2kbps
		Connector	1 male 9-pin D-Sub
	LAN control port	Number / Signal	1 port / 10Base-T, 100Base-TX, 1000Base-T (Auto Negotiation), Auto MDI/MDI-X
		Connector	1 RJ-45
Others	AC adapter	Input: 100 - 240 VAC \pm 10 %, 50 Hz / 60 Hz \pm 3 Hz Output: 12 VDC, 3 A 36 Watts (AC adapter is supplied)	
	Power consumption	About 13 Watts	About 14 Watts
	Dimensions	8.27 x 1.18 x 5.51" (approx.) / 210 (W) x 30 (H) x 140 (D) mm (EIA 1/2U rack width, lower height, not including projections)	
	Weight	1.98 lbs. approx. / 0.9 kg	1.98 lbs. approx. / 0.9 kg
	Temperature	Operating: 32°F to 104°F / 0°C to +40°C Storage: -4°F to +176°F / -20°C to +80°C	
	Humidity	Operating/ Storage: 20 % to 90 % (Non Condensing)	

*1 x.v.Color, 3D, HEC, ARC, and CEC are not supported.

*2 HDR will work when you connect HDR supported sink device and when you use copied EDID of HDR supported sink device.

*3 Use an HDMI cable shorter than 16.4 ft. approx. / 5 m.

*4 4K video signals: 24 Hz / 25 Hz / 30 Hz / 50 Hz (4:4:4) / 59.94 Hz (4:4:4) / 60 Hz 4:4:4 are supported.

*5 4K video signals: only 24 bit is supported.

*6 Cables polished by other polishing methods can be connected, but we do not recommend them because an increase in return loss.

*7 The maximum extension distance was measured with a cable polished by the recommended method, no connection between the transmission, and within the allowable bending radius.

■ SFP+

Item	10G-MM-SFP	10G-SM-SFP	10G-SM40-SFP(*9)
Fiber	Multimode fiber	Singlemode fiber	Singlemode fiber
Connector	2 LC connectors (Duplex)		
Wave length	850 nm (VCSEL Laser (*8))	1310 nm (DFB laser (*8))	1550 nm (EML laser (*8))
Max. extension distance	OM3: 984 ft (approx.) / 300 m	OS1: 6.2 miles (approx.) / 10 km	OS1: 24.8 miles (approx.) / 40 km
Max. input power	+0.5 dBm	+0.5 dBm	-1 dBm
Receiver sensitivity (OMA) @10.3Gbps	Over -11.1 dBm	Over -12.6 dBm	Over -16 dBm
Average Launch Power	-5 dBm to -1 dBm	-8.2 dBm to +0.5 dBm	-1 dBm to +2 dBm

*8 The laser in this device meets class1.

*9 For single mode fiber SFP+, if you need a module that extends up to 24.8 miles / 40 km (OS1), please contact us.

■ Product Selection

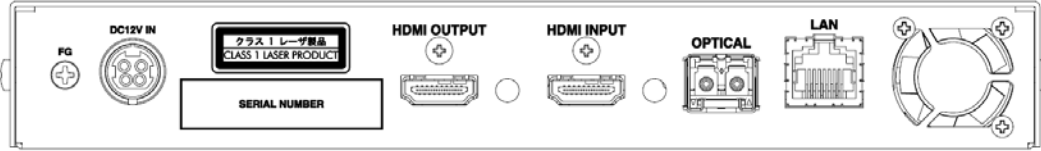
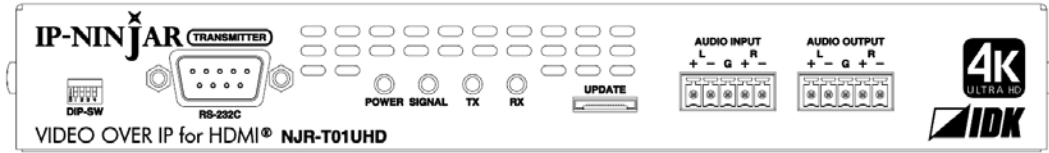
Parts Number	Fiber Type	Max. Distance
NJR-T01UHD-MM	Multimode	OM3: 984 ft (approx.) / 300 m
NJR-R01UHD-MM		
NJR-T01UHD-SM	Singlemode	OS1: 6.2 miles (approx.) / 10 km
NJR-R01UHD-SM		
NJR-T01UHD-SM40	Singlemode	OS1: 24.8 miles (approx.) / 40 km
NJR-R01UHD-SM40		

● All specifications and drawings are subject to change without notice. ● Please do not use the supplied AC adapter and power supply cable for other products. ● The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and other countries.

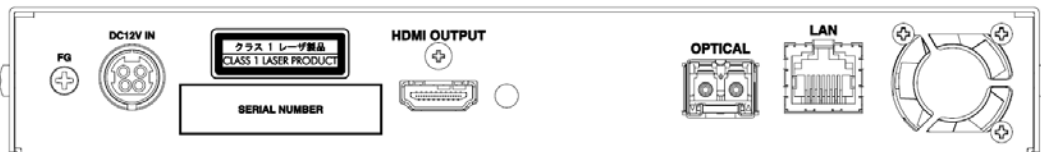
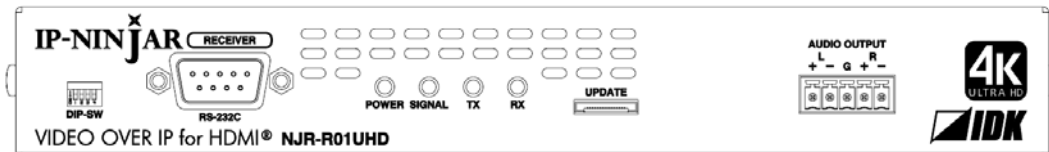
● PJLink is a trademark in Japan, the United States, and other countries/regions. ● HDBaseT™ and the HDBaseT Alliance Logo are trademarks of the HDBaseT Alliance. ● The terms Anti-snow and Connection Reset are registered trademarks of IDK Corporation in Japan ● IP-NINJAR is a registered trademarks of IDK Corporation. ● All other company and product names mentioned in this document are either registered trademarks or trademarks of their respective owners. In this document, the “®” or “™” marks may not be specified.

■ Front & Rear Panel

NJR-T01UHD

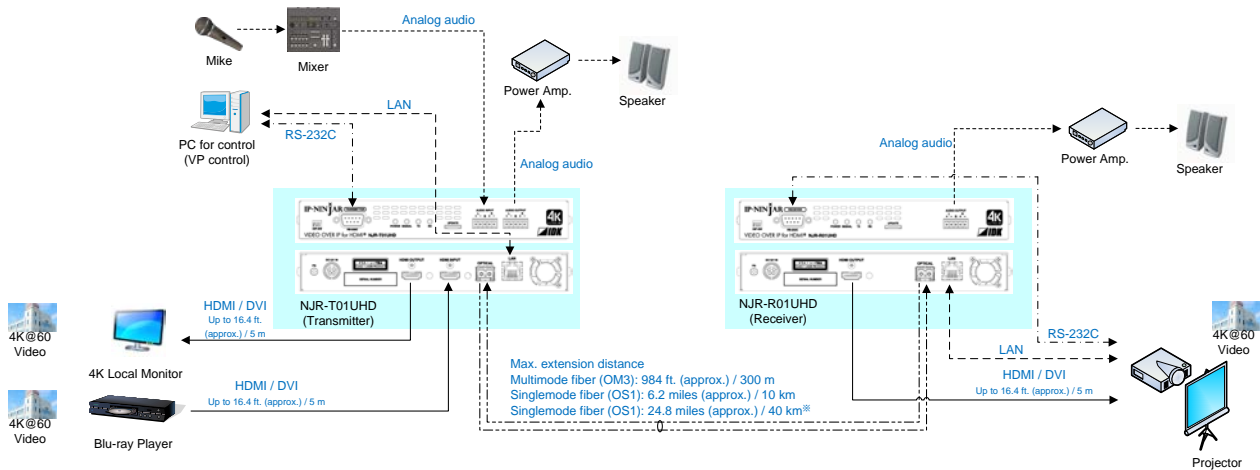


NJR-R01UHD



● All specifications and drawings are subject to change without notice. ● Please do not use the supplied AC adapter and power supply cable for other products. ● The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and other countries. ● PLink is a trademark in Japan, the United States, and other countries/regions. ● HDBaseT™ and the HDBaseT Alliance Logo are trademarks of the HDBaseT Alliance. ● The terms Anti-snow and Connection Reset are registered trademarks of IDK Corporation in Japan ● IP-NINJAR is a registered trademarks of IDK Corporation. ● All other company and product names mentioned in this document are either registered trademarks or trademarks of their respective owners. In this document, the “®” or “™” marks may not be specified.

■ Sample application diagram without 10G Ethernet switch (simple video extension)



[Features]

■ Video

- Up to 4K@60 (4:4:4)
- 1.4/2.2 supported
- HDR supported
- Local monitor output (through the input signal)
- Extension distances of each SFP + module
 - Multimode fiber (OM3): 984.26 ft. approx. / 300 m
 - Singlemode fiber (OS1): 6.21 miles approx. / 10 km
 - Singlemode fiber (OS1): 24.84 miles approx. / 40 km (Option)

■ Audio

- Analog audio embedded (TX)
- Analog audio de-embedded (TX / RX)

■ Communication

- RS-232C bidirectional communication
- LAN transmission

■ Network

- Matrix switching, Video Wall, distribution, and extension using 10GbE switch
- All TX and RX in network can be managed and controlled by NJR-CTB
- Easy to build up a system later by adding transmitters and receivers.
- Video Wall

■ Others

- EDID emulation
- DDC buffer
- Connection Reset

● All specifications and drawings are subject to change without notice. ● Please do not use the supplied AC adapter and power supply cable for other products. ● The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and other countries. ● PJLink is a trademark in Japan, the United States, and other countries/regions. ● HDBaseT™ and the HDBaseT Alliance Logo are trademarks of the HDBaseT Alliance. ● The terms Anti-snow and Connection Reset are registered trademarks of IDK Corporation in Japan ● IP-NINJAR is a registered trademarks of IDK Corporation. ● All other company and product names mentioned in this document are either registered trademarks or trademarks of their respective owners. In this document, the “®” or “™” marks may not be specified.