IP-NINJAR 4K ULTRA HD RoHS

HDMI Encoder/Decoder

NJR-P01UF-T/NJR-P01UF-R

The NJR-P01UF is an AV over IP solution for high definition signal transmission via fiber optic cables. This 4K solution leverages 10 Gb Ethernet switches and enables signal management of 4K@60 (4:4:4) signals with zero latency. USB HID class is also supported for KVM extension application. Additionally, via the NJR-P01UF, the NJR-CTB can be controlled using an IR cable (IR-P01-R) and recommended remote controller. The NJR-P01UF features LAN/RS-232C bidirectional communication.

Use this product with a combination of NJR-P01UF-T and NJR-P01UF-R or IP-NINJAR series products.
It cannot be connected to OPF or FDX series.

■ Specification

Item		NJR-P01UF-T (Encoder)	NJR-P01UF-R (Decoder)
Input		1 input HDMI/DVI 1.0 TMDS single link HDCP 1.4/2.2 HDR (*1) x.v.Color/3D/ARC/HEC/CEC are not supported. EDID emulation Connector: 1 female HDMI Type A (19-pin) Use 16 ft. (5 m) or shorter HDMI cables.	1 input Digital signal for extension Format: IP-NINJAR protocol RS-232C/LAN/USB Connector: 2 LC
Output		1 output Digital signal for extension Format: IP-NINJAR protocol RS-232C/LAN/USB Connector: 2 LC	1 output HDMI/DVI 1.0 TMDS single link HDCP 1.4/2.2 HDR (*1) x.v.Color/3D/ARC/HEC/CEC are not supported. Connector: 1 female HDMI Type A (19-pin) Use 16 ft. (5 m) or shorter HDMI cables.
Format		VGA / SVGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA / WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / WXGA++ / UXGA / WSXGA+ / VESAHD / WUXGA / QWXGA / 4K 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K For 4K format, 24 Hz/25 Hz/30 Hz/50Hz (4:4:4)/60 Hz (4:4:4) are supported.	
Color depth		24 bit, 30 bit, 36 bit Deep Color For 4K format: only 24 bit	
Dot clock		25 MHz to 600 MHz	
TMDS clock		25 MHz to 300 MHz	
TMDS data rate		0.75 Gbps to 18 Gbps	
Digital audio input		Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample size: 16 bit to 24 bit	—
Digital audio output		—	Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample size: 16 bit to 24 bit
Cable for extension	Cable	Duplex fiber cable SFP+ optical transceiver	
	Polishing	- SFP+ optical transceiver for Multimode : PC polishing (Recommended) - SFP+ optical transceiver for Singlemode : UPC polishing (Recommended), SPC *APC is not supported	
	Transmission distances (*2)	- Multimode fiber (OM3) : Up to 984 ft. (300 m) - Singlemode fiber (OS1) : Up to 6.21 mi. (10 km) - Singlemode fiber (OS1) : Up to 24.85 mi. (40 km, optional)	
Control	RS-232C	1 port/captive screw (3-pin), full duplex, up to 115.2 kbps	
	LAN	1 port/RJ-45 10Base-T/100Base-TX/1000Base-T (Auto Negotiation), Auto MDI/MDI-X	
	USB	1 port/female Type-B (HID class)	2 ports/female Type-A (HID class)
	IR input	1 port/captive screw (3-pin)	
Functions		DDC buffer, Connection Reset (*3)	
General	AC adapter	Input : 100 - 240 VAC ± 10%, 50 Hz/60 Hz ± 3 Hz Output : DC 12 V 3 A (A dedicated AC adapter is provided)	
	Power consumption	About 8 Watts	About 10 Watts
	Dimensions	4.2 (W) × 1.1 (H) × 7.1 (D)" (106 (W) × 28 (H) × 180 (D) mm) (Quarter rack wide, thin type) (Excluding connectors and the like)	
	Weight	1.5 lbs. (0.7 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)	

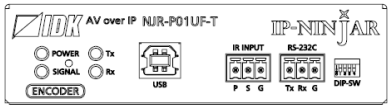
*1 HDR is supported if the connected sink device supports HDR and its copied EDID is set for EDID setting.
*2 The maximum transmission distance is measured under the following conditions: Fiber that is polished by a recommended method is used; there is no interconnection; it does not exceed the allowable bending radius.
*3 For digital systems, some problems, such as an HDCP authentication error, can often be recovered by physically disconnecting and reconnecting the digital cables. However, the Connection Reset feature will fix these problems automatically without the need to physically plug and unplug the cables. It creates the same condition as if the cable were physically disconnected and reconnected. This feature only works for the NJR-P's output. If other devices are connected between the NJR-P's output and sink device, this feature may be invalid.

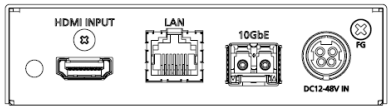
■ SFP+ Specification

Item	10G-MM-SFP	10G-SM-SFP	10G-SM40-SFP (Optional)
Fiber	Multimode fiber	Singlemode fiber	Singlemode fiber
Wave length	850 nm (VCSEL laser)	1310 nm (DFB laser)	1550 nm (EML laser)
Laser safety	Class 1 (JIS C 6802, IEC60825-1)		
Max. transmission distances	OM3: 984 ft. (300 m)	OS1: 6.21 mi. (10 km)	OS1: 24.85 mi. (40 km)
Receiver sensitivity (OMA) @10.3Gbps	-11.1 dBm or higher	-12.6 dBm or higher	-16 dBm or higher
Average Launch Power	-5 dBm to -1 dBm	-8.2 dBm to +0.5 dBm	-1 dBm to +2 dBm
Max. input power	+0.5 dBm	+0.5 dBm	-1 dBm
Connector	LC (Duplex)		

■ **Front & Rear Panels**

NJR-P01UF-T-MM/SM





NJR-P01UF-R-MM/SM