



HDMI Decoder NJR-P01UFR-R

The NJR-P01UFR-R is an AV over IP decoder for long-haul HDMI signal transmission via fiber optic cables. HDMI video signals can be transmitted at resolutions up to 4K@60 (4:4:4) and supports HDCP 2.2 encryption. LAN transmission is also supported. The decoder incorporates robust Neutrik connectors and a ruggedized chassis to accommodate event/staging market needs. The NJR-P01UFR-R can be combined with other IP-NINJAR series products to create a versatile 10GbE AV over IP eco-system or used with a single IP-NINJAR encoder for point-to-point video extension.

The NJR-P01UFR-R cannot be combined with IDK's OPF or FDX series products.

■ Specification

Item		Description
Input		1 input Digital signal for extension Format: IP-NINJAR protocol LAN Connector: 2 Neutrik's LC (opticalCON DUO series)
	Output	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) Transmission distances: Up to 98 ft. (30 m) (1080p@60), Up to 39 ft. (12 m) (4K@60) (*2)
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 formats, 24 Hz/25 Hz/30 Hz/50 Hz (4:4:4)/60 Hz (4:4:4) are supported.
Color depth		24 bit, 30 bit, 36 bit Deep Color For 4K formats, only 24 bit is supported.
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 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	Polishing	- SFP+ optical transceiver for Multimode : PC polishing (Recommended) - SFP+ optical transceiver for Singlemode : UPC polishing (Recommended), SPC *APC is not supported.
	Transmission distances (*3)	- 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	LAN	1 port/Neutrik's RJ-45 (etherCON type) 10Base-T/100Base-TX/1000Base-T (Auto Negotiation), Auto MDI/MDI-X
Functions		DDC buffer, Connection Reset (*4)
General	Power	100 - 240 VAC ±10%, 50 Hz/60 Hz ±3 Hz Neutrik's powerCON type
	Power consumption	About 8 Watts
	Dimensions	8.3 (W) × 1.7 (H) × 10.2 (D)" (210 (W) × 44(H) × 260 (D) mm) (Excluding connectors and the like)
	Weight	3.7 lbs. (1.7 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 cable distance varies depending on the connected devices and was measured under following conditions:

- 1080p@60 : When IDK's 24 AWG cable was used and signals of 1080p@60 24 bit/pixel (8 bit/component) was output.
- 4K@60 : When IDK's 18 Gbps supported cable was used and signals of 4K@60 24 bit/pixel (8 bit/component) was output.

The maximum cable distance depends on the connected devices. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above.

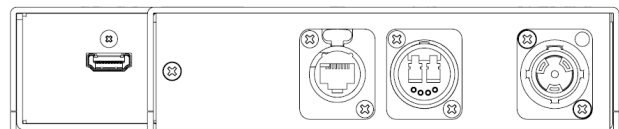
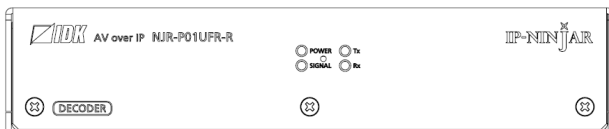
*3 The maximum transmission distance is measured under the following conditions: Fiber that is polished by a recommended method is used; there is no interconnection; it does not exceed the allowable bending radius.

*4 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.

■ Specification of optical signal

Item	NJR-P01UFR-MM	NJR-P01UFR-SM	NJR-P01UFR-SM40 (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



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