

# NJR-P01UF-T / NJR-P01UF-R



## HDMI Encoder/Decoder

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.

### FRONT & REAR PANEL



### 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)                      |                       |                         |

# NJR-P01UF-T / NJR-P01UF-R

HDMI Encoder/Decoder



## SPECIFICATIONS

| Item                 |                             | NJR-P01UF-T (Encoder)   | NJR-P01UF-R (Decoder)   |
|----------------------|-----------------------------|---|---|
| Input                |                             | 1 input<br>HDMI/DVI 1.0<br>TMDS single link<br>HDCP 1.4/2.2<br>HDR (*1)<br>x.v.Color/3D/ARC/HEC/CEC are not supported.<br>EDID emulation<br>Connector: 1 female HDMI Type A (19-pin)<br>Use 16 ft. (5 m) or shorter HDMI cables.  | 1 input<br>Digital signal for extension<br>Format: IP-NINJAR protocol<br>RS-232C/LAN/USB<br>Connector: 2 LC   |
| Output               |                             | 1 output<br>Digital signal for extension<br>Format: IP-NINJAR protocol<br>RS-232C/LAN/USB<br>Connector: 2 LC  | 1 output<br>HDMI/DVI 1.0<br>TMDS single link<br>HDCP 1.4/2.2<br>HDR (*1)<br>x.v.Color/3D/ARC/HEC/CEC are not supported.<br>Connector: 1 female HDMI Type A (19-pin)<br>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<br>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<br>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<br>Sampling frequency: 32 kHz to 192 kHz<br>Sample size: 16 bit to 24 bit   | —   |
| Digital audio output |                             | —   | Multi-channel LPCM up to 8 channels<br>Sampling frequency: 32 kHz to 192 kHz<br>Sample size: 16 bit to 24 bit   |
| Cable for extension  | Cable                       | Duplex fiber cable<br>SFP+ optical transceiver  |   |
|                      | Polishing                   | - SFP+ optical transceiver for Multimode : PC polishing (Recommended)<br>- SFP+ optical transceiver for Singlemode : UPC polishing (Recommended), SPC<br>*APC is not supported  |   |
|                      | Transmission distances (*2) | - Multimode fiber (OM3) : Up to 984 ft. (300 m)<br>- Singlemode fiber (OS1) : Up to 6.21 mi. (10 km)<br>- 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<br>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)<br>(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)<br>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.