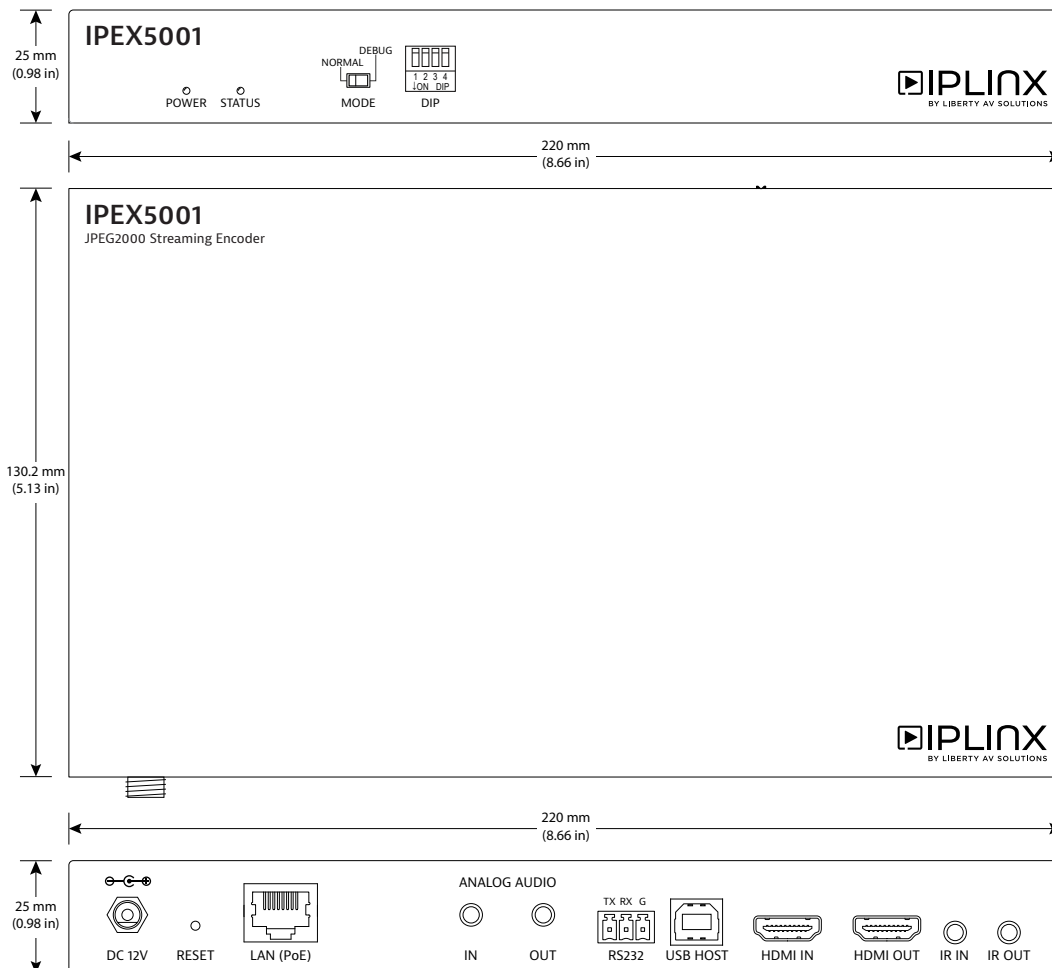# IPEX5001 Technical Specifications

AV over IP JPEG2000 Encoder

Rev 160708

The IPLinx IPEX5001 transmits HDMI video and audio over a gigabit IP network using JPEG2000 encoding with a variable data rate up to 250 Mbps. The IPEX5001 supports video signals up to 4K at 60 Hz 4:2:0 with HDCP 2.2 and 7.1 multichannel audio support. Using a 48 port gigabit switch, up to 45 encoders may be used to create an incredible matrix or switching system within a single installation. An analog audio input port embeds the audio with the video content, such as a DVI video source. An analog audio output port de-embeds the audio from the HDMI content, while still passing the audio to the HDMI output.

The IPEX5001 supports PoE and can be powered remotely by compatible power source equipment, such as a PoE Ethernet switch, eliminating the need for a nearby power outlet. The RS232 port relays commands from the IP controller and operates in a pass-through capacity to control a third party device such as an HD video camera. The USB connection passes keyboard and mouse signals from the IPEX5002 decoder to the IPEX5001 encoder.

The IPEX5001 requires a single IPEX5002 for a point to point installation. When multiple IPEX5001 and/or IPEX5002 devices are in a system, an IPEXCB control box will be required.

Input/Output Connections

HDMI Input	One (1) HDMI Type A Receptacle
HDMI Output	One (1) HDMI Type A Receptacle
LAN	One (1) 8P8C port (Shielded RJ45)
Power	One (1) 5.5 mm OD, 2.6 mm ID Threaded Barrel
RS232 Port	One (1) 3-pin Removable Terminal Block Connector
USB Device	One (1) USB Type B Port
Audio Input	One (1) 3.5 mm TRS Receptacle
Audio Output	One (1) 3.5 mm TRS Receptacle
IR Input	One (1) 3.5 mm TRS Receptacle
IR Output	One (1) 3.5 mm TRS Receptacle
Reset	One (1) Momentary Push Button
Mode	One (1) Two Position Slider Switch
DIP	One (1) Four Position DIP Switch

Supported Audio, Video and Control

Video Resolutions	SMPTE: 480p, 576p, 720p, 1080i, 1080p, 2160p/30 (4:4:4), 2160p/60 (4:2:0) VESA: Resolutions up to 1920x1200 Color Depth: 24, 30, 36 bit
Video Compliance	HDMI 1.4 and HDCP 1.4/2.2
Embedded Audio	Up to PCM 8 channel, Dolby Digital True HD, and DTS-HD Master Audio
ARC (Audio Return Channel)	No
HEC (HDMI Ethernet Channel)	No
CEC (Consumer Electronics Control)	Yes
Supported Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
USB Compliance	HID only

Streaming Signal Characteristics

Maximum Distance (point to point)	100 m (328 ft)
Cable Requirements	Category 5e or greater with TIA/EIA-568B crimp pattern
Encoding Data Rate	2160p: up to 250 Mbps 1080p: up to 150 Mbps
Encoding Method	VBR
End to End Latency	17-33 ms (1-2 fps)
Maximum Video Wall Size	16x16

Chassis and Environmental

Construction	Black Steel
Dimensions (H x W x D)	25 mm x 220 mm x 130.2 mm (0.98in x 8.66 in x 5.13 in)
Operating Temperature	0° to +40° C (+32° to +104° F)
Operating Humidity	20% to 90%, Non-condensing
Storage Temperature	-10° to +60° C (+14° to +140° F)
Storage Humidity	20% to 90%, Non-condensing

Power and Regulatory

Power Input	12V DC 1A or 48V DC PoE (Power over Ethernet)
Power over Ethernet (PoE) Compatibility	802.3af Alternative A
Power Consumption	6 watts
ESD Protection	8kV air, 4kV contact
Regulatory	FCC, CE, RoHS

Other

Warranty	2 years
Diagnostic Indicators	Power and Status
Included Accessories	Installation Guide, Power Supply with US, UK, EU and AU adapters, 3-pin Removable Screw Terminal, Mounting Ears (2 ea), IR emitter, IR receiver
IP Controller	IPEXCB
Compatible Decoder	IPEX5002

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.