

NXU-2B™

Radio over IP (RoIP) Gateway



The NXU-2B expands upon JPS' industry standard RoIP gateway to provide the most efficient means available to transport communications across any IP network.



Overview

The NXU-2B connects communications equipment across an IP network using JPS RoIP technology. It is intended for use with radios or other four-wire devices and JPS products such as ACU interoperability gateways. The NXU-2B supports multiple vocoders, offering superior audio quality with a minimal use of network bandwidth.

The NXU-2B is a general purpose stand-alone device that transports full duplex audio, one RS-232 port, and four status bits across an IP network. A pair of NXU-2Bs can form a simple system that creates a transparent communications link between the two.



Benefits

- **Optional encryption coming Q4 2020**
- Drop-in replacement for any application requiring an NXU-2A, with new features
- Multiplexes audio and data over a standard Ethernet network
- Allows use of existing network infrastructure, eliminating the need for leased lines and microwave sites
- Directly interfaces to over 300 types of radios and other devices using audio interface cables developed by JPS
- Features advanced audio optimization settings such as adjustable Tx/Rx audio levels, delays, and Voice Recognition
- Transports RS-232 data to support remote control and supervisory capabilities
- Dual GPIO provided for additional auxiliary functions
- Compatible with all JPS RoIP interfaces including NXU-2As, ACU gateways, WAIS software, and the Z2 Controller

New Features

Compared to its predecessors, the NXU-2B contains modern components as well as a set of features that support simple remote setup and troubleshooting of communications systems. Among these features is the ability to set transmit and receive audio levels remotely, reboot the device remotely, along with various security options. All configurable settings are accessible through the device's browser-based user interface.

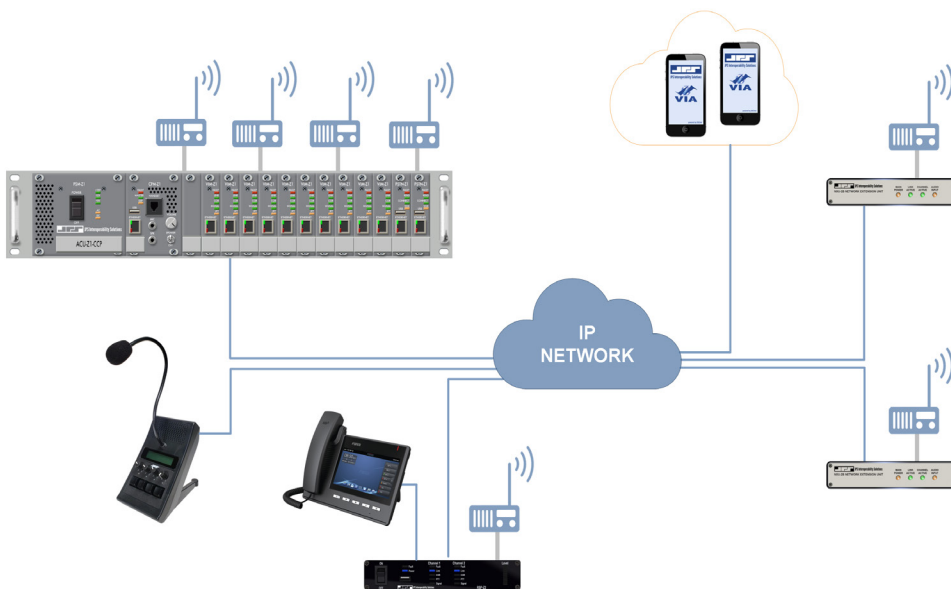
Additionally, the NXU-2B features 600Ω balanced input and output, PTT relay (in addition to solid state keying), and no longer requires the audio crossover adapter for use with standard JPS radio interface cables.

System Applications

The NXU-2B is designed for years of continuous operation at remote locations, supporting a wide variety of mission critical applications. These include bridging remote radio systems together as well as tying radios via IP to console interfaces or push-to-talk over cellular platforms such as JPS VIA.

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The NXU-2B plays a vital role in JPS wide-area solutions, such as this ACU-Z1 interoperability system. The NXU-2Bs interface single LMR or other 4-wire audio interfaces to these systems using the JPS RoIP protocol. This allows these radios or other devices to communicate with all other members of the system.

RX Audio Input

Input Impedance: Balanced 600Ω or 47kΩ, transformer coupled

Input Level: Remotely adjustable via soft pots: -10 dBm nominal, range: -20 to +10dBm

Frequency Response: 10Hz to 3600 kHz +/- 2dB

TX Audio Output

Output Impedance: Balanced 600Ω, AC coupled

Output Level: Remotely adjustable via soft pots: -10 dBm nominal, Range: -20 to +10dBm

Frequency Response: 10 Hz to 3350 Hz +/- 2dB

Distortion: 0.5% or less (excepting vocoder)

Serial Interface

Interface Type: RS-232, asynchronous, full duplex

Connector: DB-9 male, standard PC/AT DCE pinout

Network Interface

Protocols: UDP, TCP

Audio Coders: GSM (13 Kbps), G.723 ADPCM (16, 24, 32 Kbps), G.711 (64 Kbps)

General/Environmental

Programming: HTTP (web), RS-232

Audio/Data Connector: DB-15 female (no audio crossover adapter required)

Input Power: +11 to +15VDC @ 0.5A max. 12VDC wall cube supplied

Temperature: Operating: -20 to +60°C, Storage: -40 to +85°C

Humidity: Up to 95% @ 55°C

Size and Weight: 1.7" H x 6.5" W x 6.5" D (4.3 x 16.5 x 16.5cm) 1.1lbs (2.4kg)

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