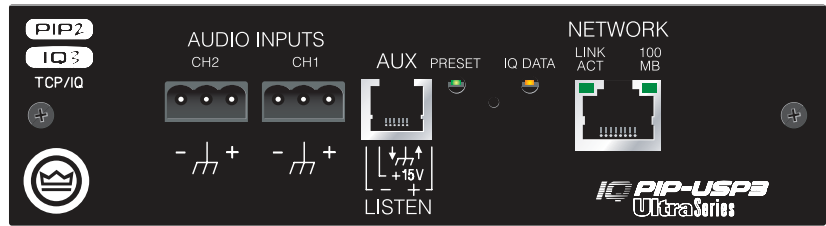




## ULTRA SERIES

# IQ-PIP-USB3



The Crown® IQ-PIP-USB3 is a 3rd generation DSP-based PIP™ (Programmable Input Processor) input module for PIP2™ compatible amplifiers.\* It connects the amplifier to a 100 Mb Ethernet network allowing it to be remotely controlled and monitored via System Architect or IQwic software.


The USB3 is a HiQnet and TCP/IQ series component and connects to the audio control/monitor network using standard 100Mb Ethernet hardware (switches, Network Interface Cards, and cables).

The USB3's SHARC DSP processor gives the user an enormous amount of digital signal processing. Audio routing, faders, meters, polarity & mute, input compressors, filters, delays, multimode output limiters, error reporting, and load monitoring are all available. A built in noise generator and sine-wave generator provide noise masking and test capabilities. The enhanced AUX port capability allows the user to interface with the amplifier to provide external manual control and monitoring.

Offering crisp, clear sound and the wide dynamic range possible with full 24-bit converters, the IQ-PIP-USB3 provides unprecedented power and flexibility in one compact—and very affordable—module.

The IQ-PIP-USB3 requires IQwic software available from [www.iqaudiosystems.com](http://www.iqaudiosystems.com).

For more details about the Crown IQ-PIP-USB3, contact the Crown Technical Support Group at 800-342-6939 or 574-294-8200. Also, visit the Crown Audio website at [www.crownaudio.com](http://www.crownaudio.com).

\* You must have a PIP2-compatible amplifier to use the IQ-PIP-USB3. To determine if your amplifier is PIP2-compatible, look for the  logo on the back of the amplifier.

## Specifications

### General

**Internal Controls:** A Reset/Preset switch, accessible with a straightened paper clip through the PIP panel, selects the next user preset if pressed for less than 2 seconds, resets the PIP to preset "0" if pressed for more than 2 seconds.

### Connectors:

#### Balanced Audio Input Connectors

3-pin removable barrier-strip connector for both channels.

#### AUX Connector

Configurable for AUX input, AUX output or Listen Bus.

## Features

- 100Mb Ethernet single-plug solution for HiQnet or TCP/IQ control and monitoring
- Listen Bus amplifier output monitor
- 24 bit conversion with 32 bit, floating point DSP processing
- 64 assignable filters with 9 different filter types including all-pass filters
- Over 2 seconds of delay available per channel
- Input compressors and output limiters for each channel
- Dual, uncorrelated noise generators for noise masking
- Sine-wave generator
- Load supervision
- Full error reporting
- Firmware upgrades via the network
- 10 user selectable presets
- Reliable FLASH memory backup of all parameters
- Three Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications

## Network Connector

The network connector is a standard RJ-45 connector that allows the IQ-PIP-USB3 to connect to an Ethernet network. Connection is made using a standard CAT 5 cable to a network switch port. In cases where an IQ-PIP-USB3 is used in stand-alone mode (not connected to an network) it can be configured using a crossover cable (TX and RX pairs swapped) directly to a computer's network adapter port.

## Indicators:

### Preset Indicator

Signals the number of the current preset, if active, by flashing a series of flashes equal to the current preset number.

### IQ Data Indicator

Flashes when the IQ-PIP-USB3 receives a valid command that is addressed to the IQ-PIP-USB3.

## Switches:

### Reset/Preset Switch

Used to change presets, restore settings to factory default or restore all the presets to the factory defaults. During operations of the switch, the Data indicator flashes as an aid to the user.

**Memory Backup:** 512 kbyte non-volatile FLASH memory for backup of run-time parameters, presets, and program storage. Capable of greater than 10 year data retention and estimated 20+ year life-cycle.

**Communications:** 100Mb Fast Ethernet conforming to IEEE 802.3.

**Power Requirements:** +24VDC @ 250mA, -24VDC @ 30mA. < 7 watts.

## Overall Audio Performance:

**DSP Processing:** 32 bit, Floating Point, 665  $\mu$ s latency.

**Maximum Input Level:** + 20 dBu.

**ADC Conversion:** 24 bit, 250  $\mu$ s latency.

**DAC Conversion:** 24 bit, 135  $\mu$ s latency.

**Dynamic Range:** >105 dB (A-weighted, 20Hz–20kHz).

**Distortion:** < 0.05% THD+N, 20Hz–20kHz.

**Crosstalk:** > 60 dB @ 1kHz.

**Common Mode Rejection (CMR):** 50 dB typical.

**Frequency Response:**  $\pm$  0.5 dB, 20Hz–20kHz.

**Input/Output Monitor Accuracy:** Typically  $\pm$ 1dB.

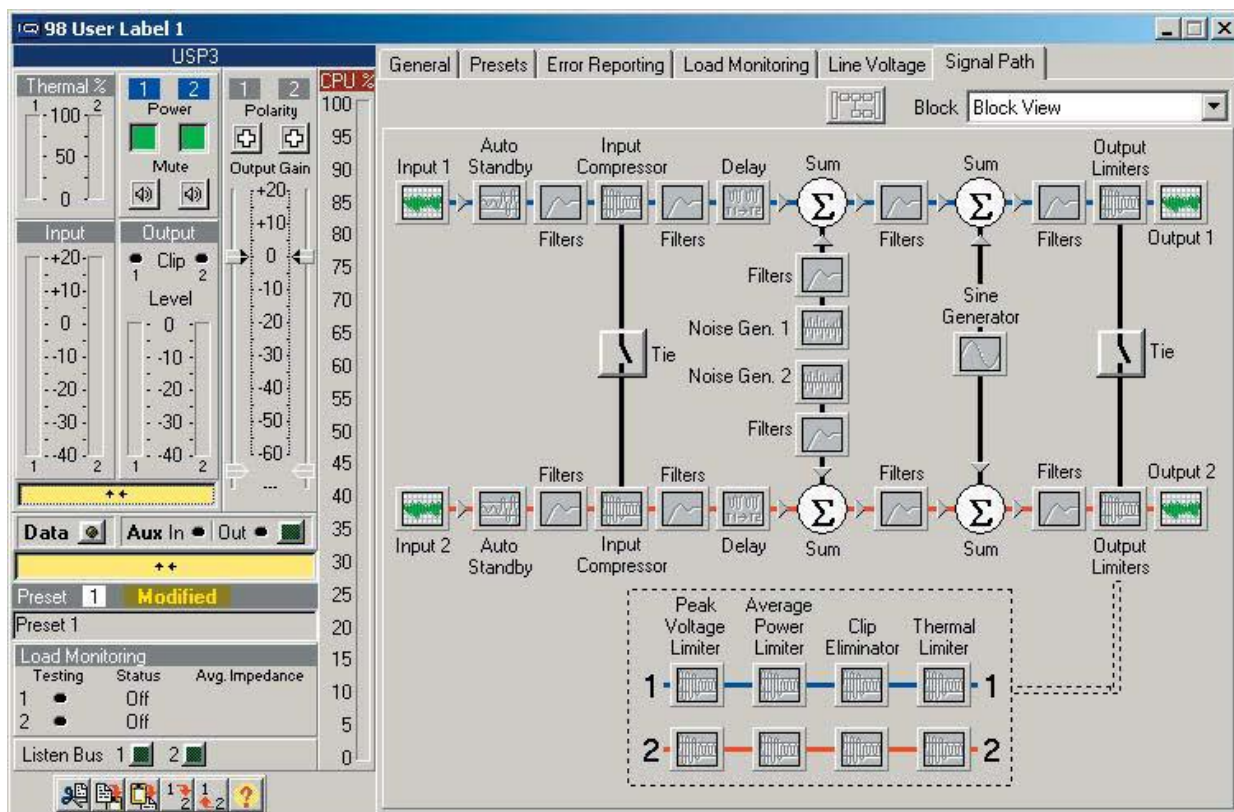


INSTALLED



TOURING

# IQ-PIP-USB3



IQ-PIP-USB3 Signal Flow Block Diagram



A Harman International Company

Crown International  
1718 W. Mishawaka Rd.  
Elkhart, IN 46517-9439  
TEL: 574-294-8200  
FAX: 574-294-8FAX  
www.crownaudio.com

### Crown's Three-Year, No-Fault, Fully Transferable Warranty

Crown offers a Three-Year, No-Fault, Fully Transferable Warranty for every new Crown IQ component—an unsurpassed industry standard. With this unprecedented No-Fault protection, your new Crown IQ component is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your unit fails, or does not perform to original specifications, it will be repaired or replaced at our expense. About the only things not covered by this warranty are those losses normally covered by insurance and those caused by intentional abuse. And the coverage is transferable, should you sell your unit.

See your authorized Crown dealer for full warranty disclosure and details. For customers outside of the USA, please contact your authorized Crown distributor for warranty information or call 574-294-8200.

Specifications subject to change without prior notice. Latest information available at [www.crownaudio.com](http://www.crownaudio.com) and [www.iqaudiosystems.com](http://www.iqaudiosystems.com).

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