

Features

- IP Stereo amplifier (2x15W)
- Audio Video Bridging (AVB)
- PoE+ or 12V powered

Hardware

- ADSP21489 Sharc DSP
- XMOS XCORE200
- Toslink/USB audio/AVB inputs
- 2 x 15Wrms amplifier out

Software Control

- 1722.1 compatible
- FIR/IIR, Crossovers, PEQ, Gain control from real time GUI
- Firmware upgradeable
- 4 preset memory
- immerGO Object-based compliant from immersiveDSP.com

Power

- PoE/PoE+ powered
- 12V DC optional input

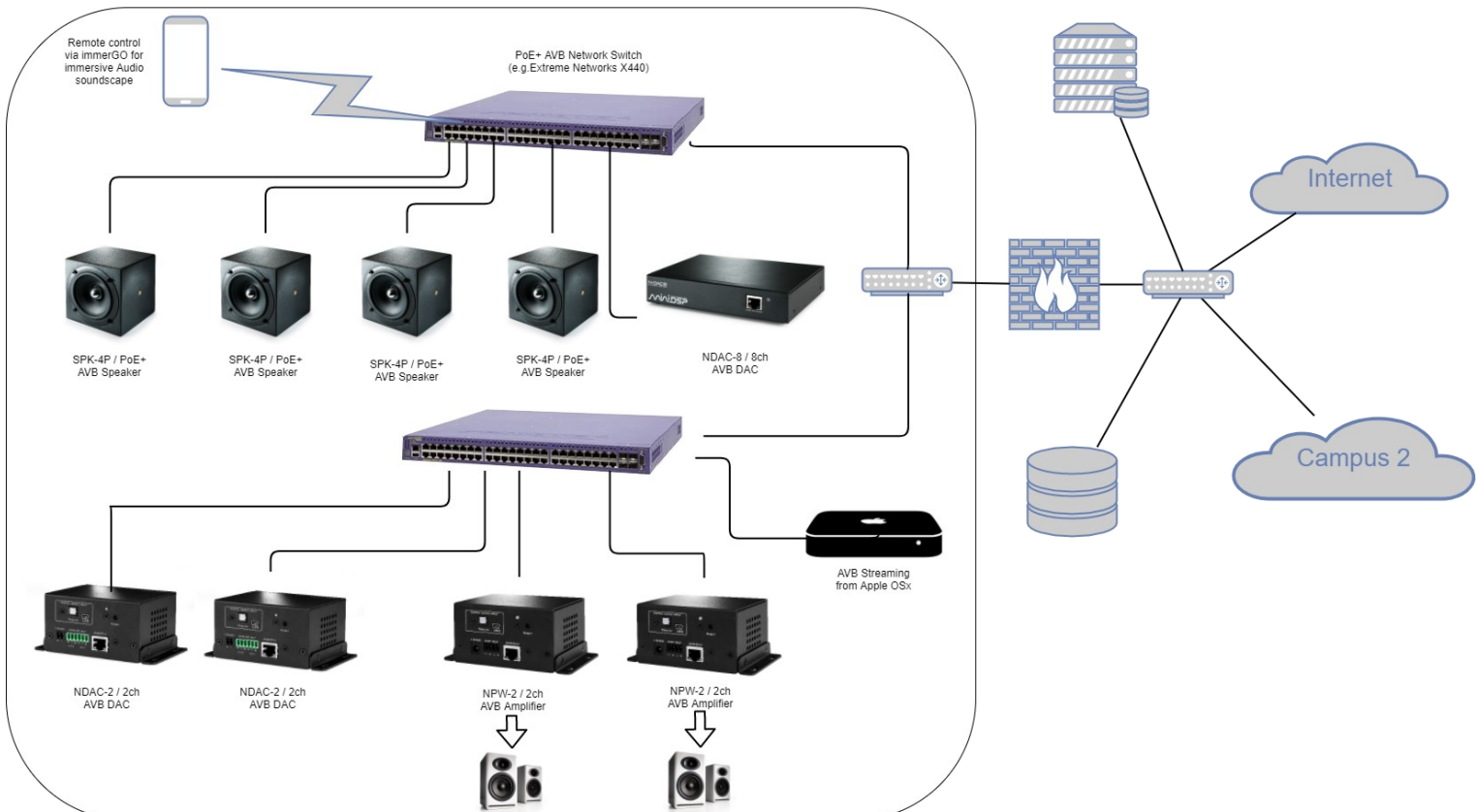
Applications

- Immersive Audio
- Commercial AV
- Multi-room audio

The NPW-2 is a PoE+ amplifier combining network audio streaming, class D amplification and Digital Signal Processor (DSP) into a pocket size enclosure. A single CAT5/6 network cable provides power, low latency audio and control for a true Plug&Play experience. The system consists of three key element:

- The Audio Video Bridging (AVB) technology powered by a 500MHz XMOS processor which provides low latency, uncompressed and tightly synchronized streams to each speaker over standard networks. Fully compliant with IEEE 1722.1, it is plug&play with 3rd party AVB devices such as Apple OSx, Biamp Systems, Audioscience...
- An on-board 400 MHz Analog Devices SHARC processor also enables substantial signal processing for true high-resolution audio capability and equalization, crossover.
- Finally, a novel multi-level switching audio amplifier technology provides 2x15W for powering up to 2 speakers.

With its Power Over Ethernet (POE) capability or external +12VDC supply, the NPW-2 is easily installed in a matter of minutes with limited knowledge.

**TYPICAL APPLICATION / SYSTEM DIAGRAM**

HARDWARE SPECIFICATIONS

Item	Description
Digital Signal Processor	32-bit Floating point Analog Devices SHARC ADSP21489 / 400 MHz
USB / AVB Processor	XMOS XCore200 for digital audio streaming <ul style="list-style-type: none"> Asynchronous USB audio UAC2.0, Driverless for Mac OS X, ASIO driver for Windows platforms Audio Video Bridging (AVB) streaming - Gigabit Ethernet
Digital audio input	TOSLINK optical input. The input signal is processed by a high quality onboard Asynchronous Sample Rate Converter for compatibility with most common sample rates (20–216kHz)
Digital Audio amplifier	Dual channel amplifier for Master + Slave configuration. 2x15W RMS @ 8Ohm under +12V configuration 2x12W RMS @ 8Ohm under PoE+ mode (power carried over CAT5/6)
DSP capabilities	Crossover, PEQ, Matrix, Delay, Comp/lim. Please check user manual for more details.
Filter storage	Four on-board presets, selectable by IP control
USB port	USB port type Mini-B for audio streaming (USB audio firmware) Real time control and firmware upgrade
Power supply	12 VDC single supply (optional if PoE powered) PoE/PoE+ powered
Dimensions (H x W x D) mm	55 x 100 x 77mm / 0.4kg
Mounting	Metal bracket, see drawings below for details.
Enclosure / Finish	Metal enclosure, black textured paint

MECHANICAL SPECIFICATIONS

