

FEATURES

- Ultra high power module
- Latest AVB & DSP technology
- OEM friendly

Power Amplifier

- UMAC™ class D technology
- Up to 2400W on channel 1
- Self protection & power hibernation
- Regulated SMPS for 85 ~ 268V operation

Flexible Digital Signal Processor

- Crossover (Up to 48dB/oct)
- Equalization (Up to 6band PEQ/ch)
- Compressor/Limiter
- Time alignment / phase / gain control
- Audio, voltage, current, thermal metering

Control

- ZeroConf for Plug&Play configuration
- Remote control for up to 256 amplifiers
- DHCP or Link Local Addressing (Auto IP)
- Remote firmware upgrade over network

Audio Video Bridging (Optional)

- Low latency, synchronized streaming
- Up to 3 incoming streams
- Up to 3 outgoing streams (loopback)
- Redundant network connectivity

The PWR-DSP1 answers the needs for a high power, high efficiency plate amplifier module. Based on the synergetic and innovative technology from DSP4YOU and Pascal A/S, the module is a turnkey solution for multi-way powered speakers. UMAC™ Class-D technology, Digital Signal Processing (DSP) and Audio Video Bridging (AVB) are some of the breakthrough features at the core of this plate amplifier.

With its impressive maximum rating of 1 x 2400W, expect no compromise on audio quality from this high end plate amplifier. From ProAudio to Hifi, the ultra low THD+N levels and high damping factor give un-paralleled audio performance.

Last but not least, the optional Audio Video Bridging (AVB) allows streaming of multiple uncompressed, low latency and synchronized audio channels over Ethernet networks. Extended cable length, noise immunity and flexible routing are some of the many obvious advantages of AVB.

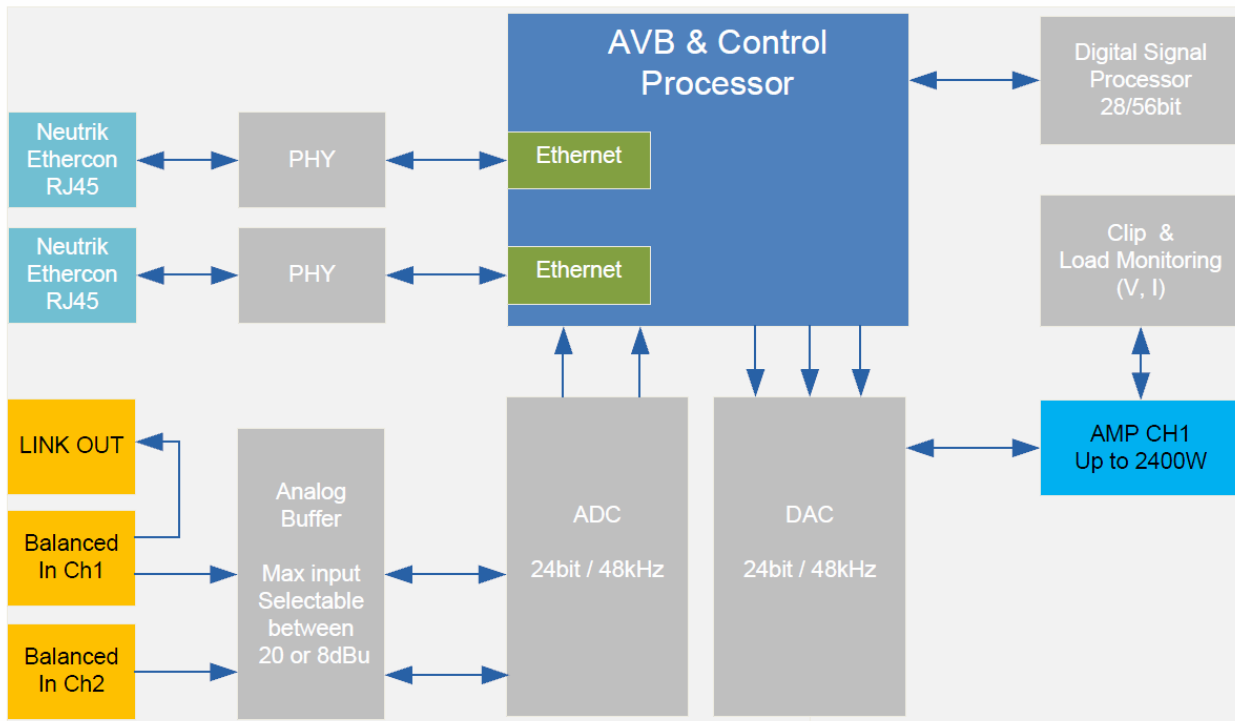
With our live amplifier health monitoring (load, temperature, clip) and ZeroConf support, the PWR-DSP1 is a true Plug & Play device that is easily configured over Ethernet or Wifi networks. For information on potential OEM implementation, contact sales@dsp4you.com



Typical Applications

- Pro Audio active speakers
- Studio / Hifi active monitors
- OEM applications
- Powered Cardioid Subwoofers

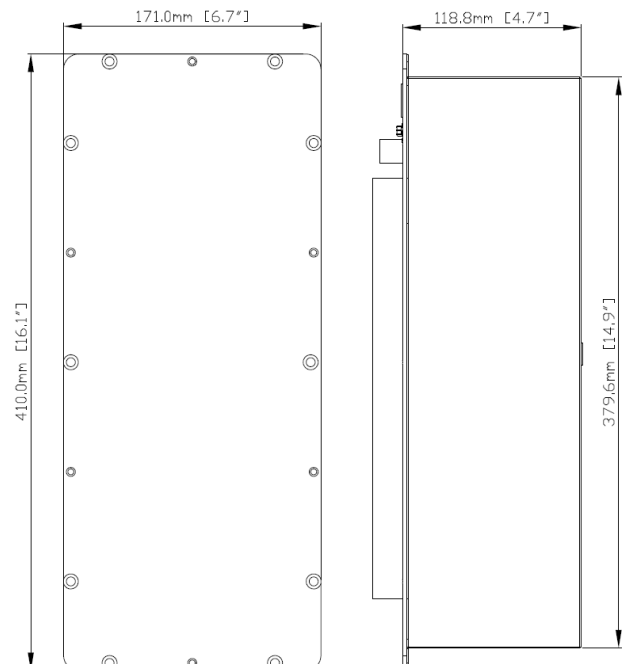
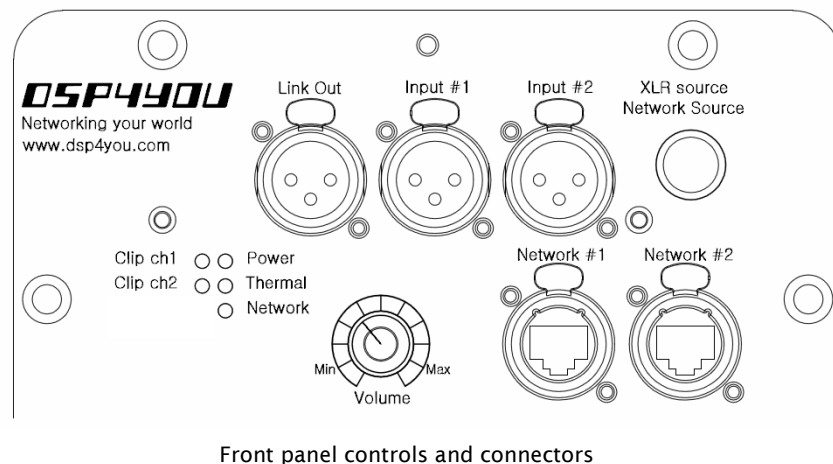
SYSTEM DIAGRAM



HARDWARE TECHNICAL SPECIFICATIONS

| Item | Description |
|-----------------------------------|---|
| Network Processor | Plug&Play network processor for remote Amplifier/ DSP control over Ethernet networks. Support of DHCP, Auto IP and mDNS for automatic addressing. |
| Digital Signal Processor | On board DSP for gain, parametric equalizer, matrix mixing, phase, compressor limiter, delay, RMS meters |
| Balanced audio input | Two analog balanced audio inputs on Neutrik XLR connectors, 1 analog link out for channel 1 Max input selectable by internal jumper setting: 20dBu or 8dBu |
| Audio over Ethernet (optional) | Audio Video Bridging (AVB) for streaming of low latency, un-compressed audio over Ethernet networks Supports IEEE standards: 802.1as, 802.1Qat, P1722 Audio streaming capability: up to 3 input streams and up to 3 output streams (link out over AVB) |
| Power ratings (RMS @ 1% THD) | Channel 1: 800W @16Ω, 1550W @8Ω, 2400W @4Ω, 4000W Peak |
| Amplifier module specifications | THD (typical): < 0,05 % (20 Hz - 20 kHz, 8 Ω load, 3 dB below rated power) Frequency response: 20Hz - 20kHz +/- 0.15dB (8 Ω load, 1 dB below rated power) Damping factor > 1000 (8 Ω load, 1 kHz and below) |
| Audio source selection | Selectable by software/ hardware between analog source and network source (AVB option) |
| Protection circuits | Input limiter, short circuit protection, DC protection of output, under & over voltage protection, intelligent mains fuse protection, power stage overload protection, temperature protection of transformers and heat-sinks |
| Real time readouts from interface | Clip, Protect mode, Output voltage, Output current, Heatsink temperature |
| Front Panel LED | Power, Thermal, Network activity, Clip LED |
| Front Panel controls | Rotary volume control (0-100%) Amplifier audio source selection (Network or Analog) |
| Front panel connectors | Two Ethercon Neutrik connector for network connectivity (RJ45 compatible) Two Neutrik XLR female connectors for analog inputs One Neutrik XLR male for analog Link Out One Powercon Neutrik connector for Main AC in One Powercon Neutrik connector for Main link out |
| Universal Mains power | 95 ~ 240VAC |
| Weight | 4.5 kg |
| Dimensions (H x W x D) mm | 410 x 171 x 138.5 mm (16.3" x 6.7" x 5.5") |

MECHANICAL SPECIFICATIONS



Order information

| Item | Description |
|--------------|---|
| PWR-DSP1 | Plate amplifier with DSP, Ethernet control |
| PWR-DSP1-AVB | Plate amplifier with DSP, Ethernet control and AVB option |