

FEATURES

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

Power Amplifier

- UMAC™ class D technology
- Up to 2400W on channel 1
- Up to 700W on channel 2 and 3
- 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-DSP3 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 an impressive maximum rating of 2400W (ch1) and 700W (ch2&3), be sure to find no compromise on audio quality. 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-DSP3 is a true Plug & Play device that is easily configured over Ethernet or Wifi networks.

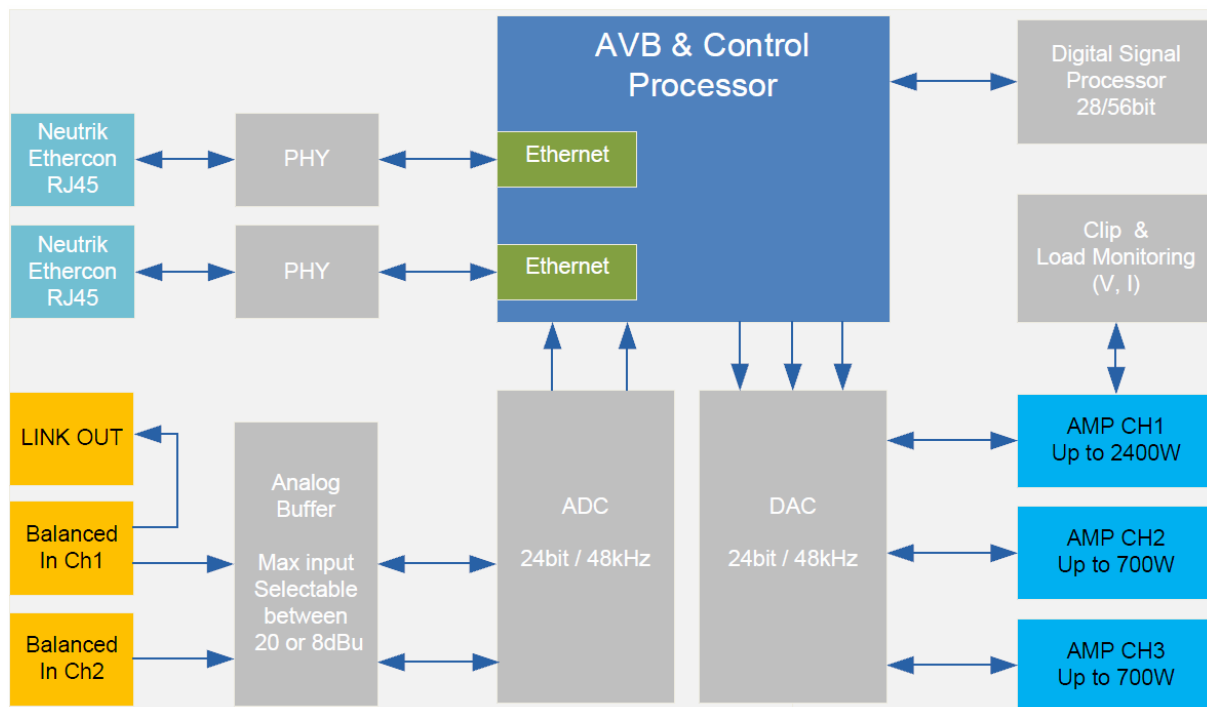
For information on potential OEM implementation, please contact sales@dsp4you.com

Typical Applications

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



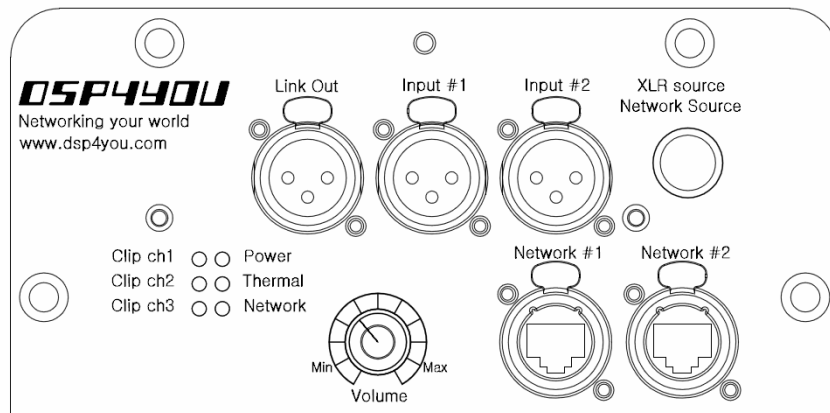
SYSTEM DIAGRAM



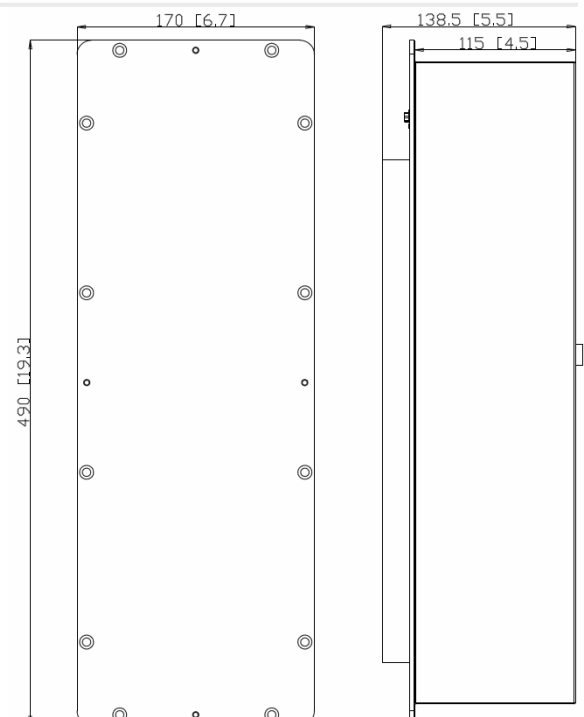
HARDWARE TECHNICAL SPECIFICATIONS

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 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 Channel 2: 200W @16Ω, 400W @ 8Ω, 700W @4Ω, 1400W Peak Channel 3: 200W @16Ω, 400W @ 8Ω, 700W @4Ω, 1400W 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 (up to 3 inputs) 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 for channels 1 to 3
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	6 kg
Dimensions (H x W x D) mm	490 x 170 x 138.5 mm (19.3" x 6.7" x 5.5")

MECHANICAL SPECIFICATIONS



Front panel controls and connectors



Order information

Item	Description
PWR-DSP3	Plate amplifier with DSP, Ethernet control
PWR-DSP3-AVB	Plate amplifier with DSP, Ethernet control and AVB option