

The schematic diagram illustrates a Class D audio amplifier system, divided into two main sections by a dashed line labeled "Isolation Barrier".

**Primary Side (Left of Barrier):**

- AC Input:** 230VAC input connected to an **EMI FILTER**.
- Rectifier:** A full-bridge rectifier with terminals 1, 2, 3, and 4.
- CCM PFC:** A Constant Current Mode Power Factor Correction stage with terminals 1, 2, and 3.
- Flyback Supply:** A flyback converter stage with terminals 1, 2, 3, 4, 5, 9, and 10.
- SGND:** Signal Ground connection at terminal 5.

**Secondary Side (Right of Barrier):**

- Gate Driver:** An **HB BOOTSTRAPPED GATE DRIVER** with a +15V supply and terminals 1, 2, 3, and 4.
- Power MOSFETs:** Two MOSFETs (labeled 1, 2, 3, 4) driven by the gate driver.
- Output Filter:** A filter network with terminals 1, 2, 3, and 4.
- Speaker:** A speaker load connected to the output filter.
- PGND:** Power Ground connections.

**Control and Feedback (Bottom):**

- Audio input:** A 3-pin connector with terminals 12, 13, and 14.
- Input Stage:** A non-inverting amplifier with terminals 12, 13, and 14.
- PWM Modulator:** A pulse-width modulator with terminals 12, 13, and 14.
- Drive:** A MOSFET (labeled 1, 2, 3, 4) driven by the PWM modulator.
- Feedback:** A MOSFET (labeled 1, 2, 3, 4) connected to the feedback loop.
- SGND:** Signal Ground connection at terminal 13.

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