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Capstone Abstract Group 31– Class-D Audio Power Amplifier

Music and sound are all around us and people often do not consider how the sound is produced. There are many different classes of power amplifiers that are used to reproduce sound. In today's world, the most widely used power amplifier classes are the Class A, Class B, Class AB, and Class D. The Class D power amplifier is typically used in high power applications because of its high efficiency. This is because the input signal is modulated which creates a signal that turns the output transistors on and off. This process is very similar to how switching power supplies operate. Since this amplifier is highly power efficient, it can be made smaller because it does not have to dissipate as much heat as the other power amplifier classes would. Because of its high efficiency and small size, this power amplifier can be implemented in mobile devices, speakers, and other sound applications. For these reasons, the Class D power amplifier has become more popular in modern time since people are more conscious about their power consumption.