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# Overview

The 18-bit Octa DAC is an 8-channel digital to analog converter with 8 parallel 18-bit Analog Devices DAC ICs (AD5781). These 8 DAC ICs are controlled by one FPGA (Field Programmable Gate Array) which is programmed by a computer. Each DAC has an output buffer. The board runs on 15V and ground and outputs from the DACs.

# Technical Specifications

# Design

There are two main parts of the DAC: the board and the vhdl code. There is also the computer-side driver called dac\_frontpanel.py which both provides tools to talk to, command, and program the FPGA.

The Board

The

The VHDL

The Computer Frontpanel

# FPGA Programming