AD525x Digital Potentiometers

The ad525x_dpot driver exports a simple sysfs interface. This allows you to work with the immediate resistance settings as well as update the saved startup settings. Access to the factory programmed tolerance is also provided, but interpretation of this settings is required by the end application according to the specific part in use.

Files

Each dpot device will have a set of eeprom, rdac, and tolerance files. How many depends on the actual part you have, as will the range of allowed values.

The eeprom files are used to program the startup value of the device.

The rdac files are used to program the immediate value of the device.

The tolerance files are the read-only factory programmed tolerance settings and may vary greatly on a part-by-part basis. For exact interpretation of this field, please consult the datasheet for your part. This is presented as a hex file for easier parsing.

Example

Locate the device in your sysfs tree. This is probably easiest by going into the common i2c directory and locating the device by the i2c slave address.

```
# ls /sys/bus/i2c/devices/
0-0022  0-0027  0-002f
```

So assuming the device in question is on the first i2c bus and has the slave address of 0x2f, we descend (unrelated sysfs entries have been trimmed).

```
# ls /sys/bus/i2c/devices/0-002f/
eeprom0 rdac0 tolerance0
```

You can use simple reads/writes to access these files:

```
# cd /sys/bus/i2c/devices/0-002f/

# cat eeprom0
0
# echo 10 > eeprom0
# cat eeprom0
10

# cat rdac0
5
# echo 3 > rdac0
# cat rdac0
```

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