

12 Bit Digital to Analog Converter(MCP4725)

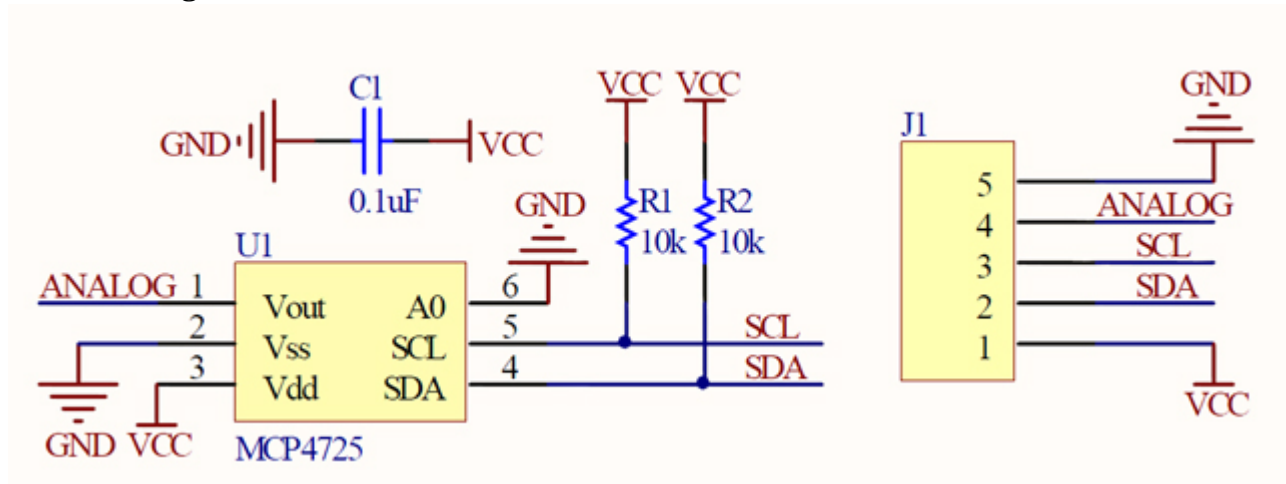
20140413

Reference;

i2c_utility_0.2.1.f

MCP4725_0.1.f

Curcuit Diagram



MCP4725'address is h60.

eeeprom(24LC512) on QuickStartBoard is h50.

Prop0 Cog6 ok

i2c_detect

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00:	00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
40:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50:	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
60:	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

i2c_device:2

Prop0 Cog6 ok

Checking status

Prop0 Cog6 ok

disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 2048

PowerDownBits: normal

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

Analog output is 3.307V.

4095 normal chg_DAC disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 4095

PowerDownBits: normal

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

Analog output is 0V.

2000 1k chg_DAC disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 2000

PowerDownBits: 1k

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

Analog output is 0V.

1000 500k chg_DAC disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 1000

PowerDownBits: 500k

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

Data inside EEPROM is loaded to DAC register by reset.

Analog output is 1.657V .

reset disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 2048

PowerDownBits: normal

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

Same as [3500 normal chg_ADC]

3500 normal wr_DAC disp_status

--- EEPROM ---

Value: 2048

PowerDownBits: normal

--- DAC register ---

Value: 3500

PowerDownBits: normal

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

It seems Write-command(Fast mode and Write DAC register) is same.

Referring MCP4625.pdf's page18.

Same value are written to DAC asnd EEPROM.

1500 normal wr_DAC&EEPROM

Prop0 Cog6 ok

disp_status

--- EEPROM ---

Value: 1500

PowerDownBits: normal

--- DAC register ---

Value: 1500

PowerDownBits: normal

Power On Reset: 1

EEPROM Write Status:Ready

Prop0 Cog6 ok

It aseems different value are NOT written to DAC and EEPROM.

Refering wr_DAC&EEPROM1.

I have no idea.

Prop0 Cog6 ok

demo1

