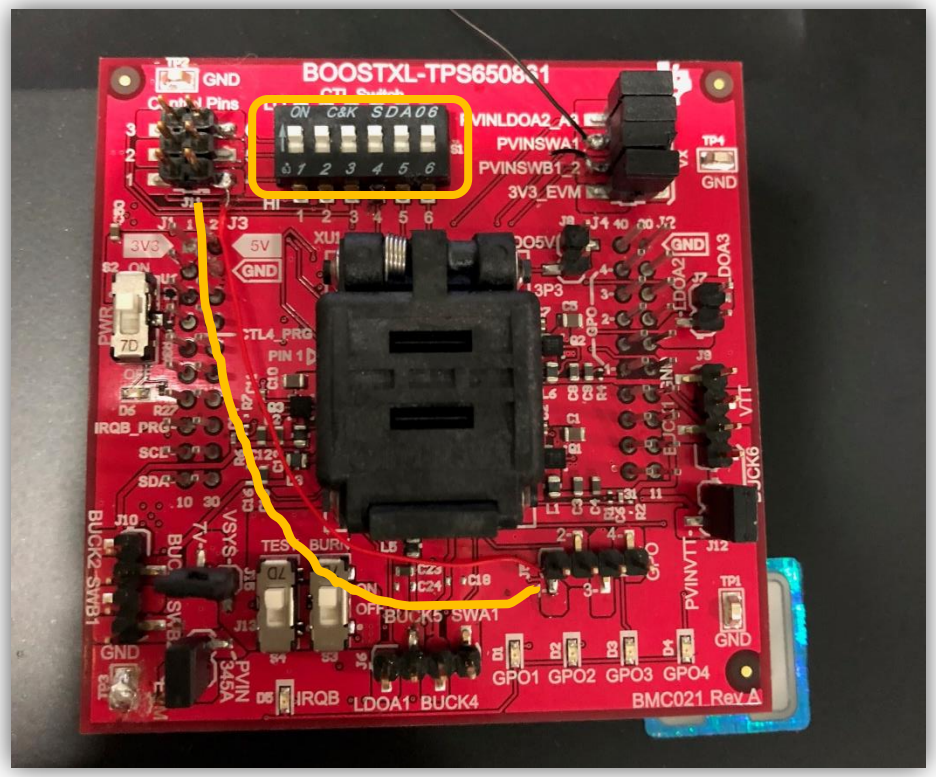
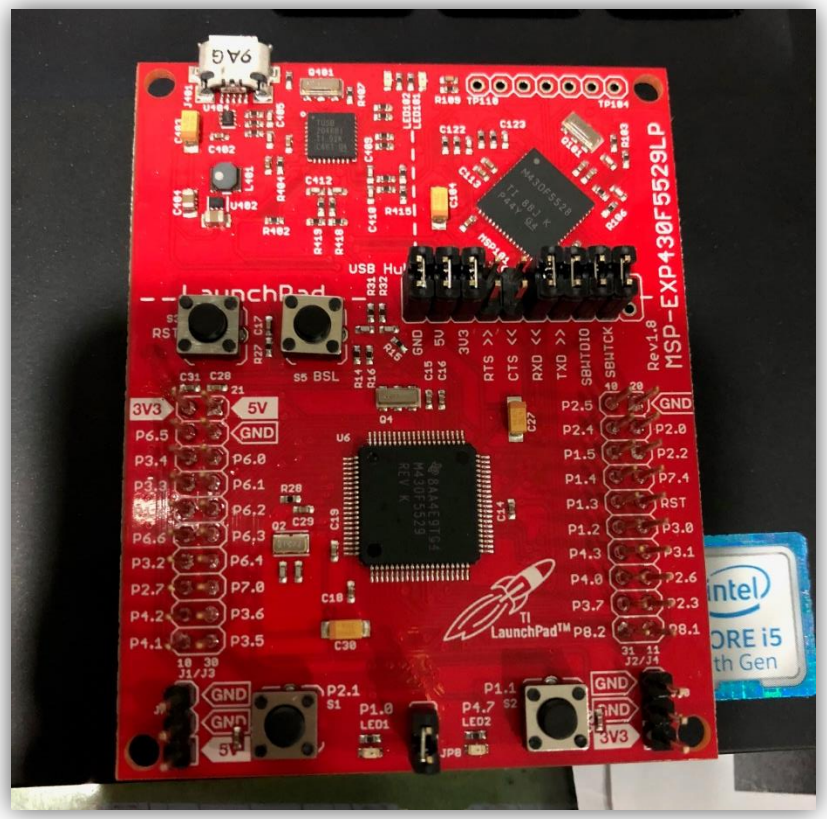
Hardware setup before programming

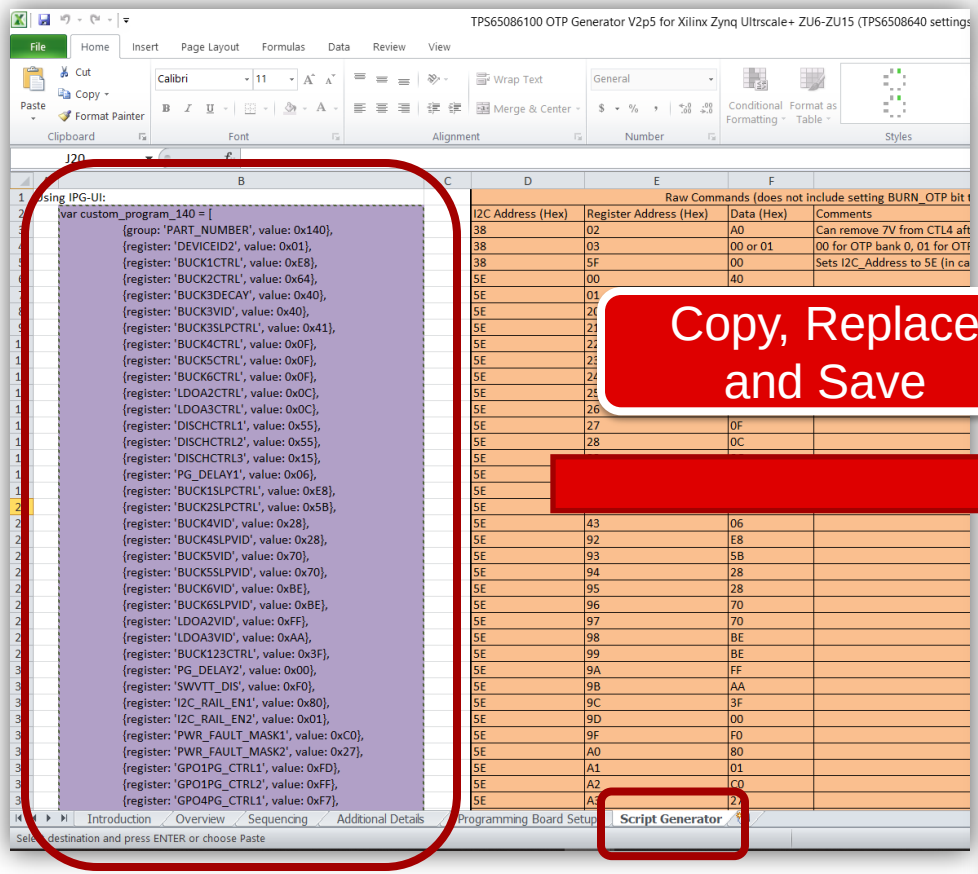
- Jumpers installed: J12, J13, all of J14, J15.
- Put S1 (CTL1-6) to on.
- CTL4 short to GPO1

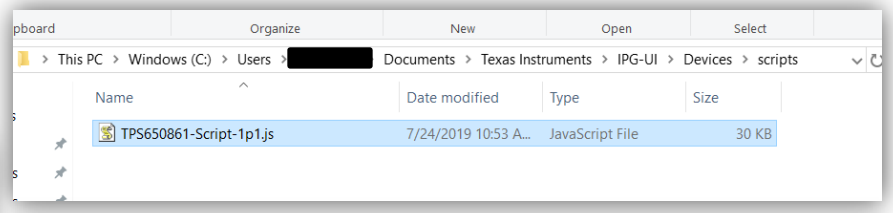




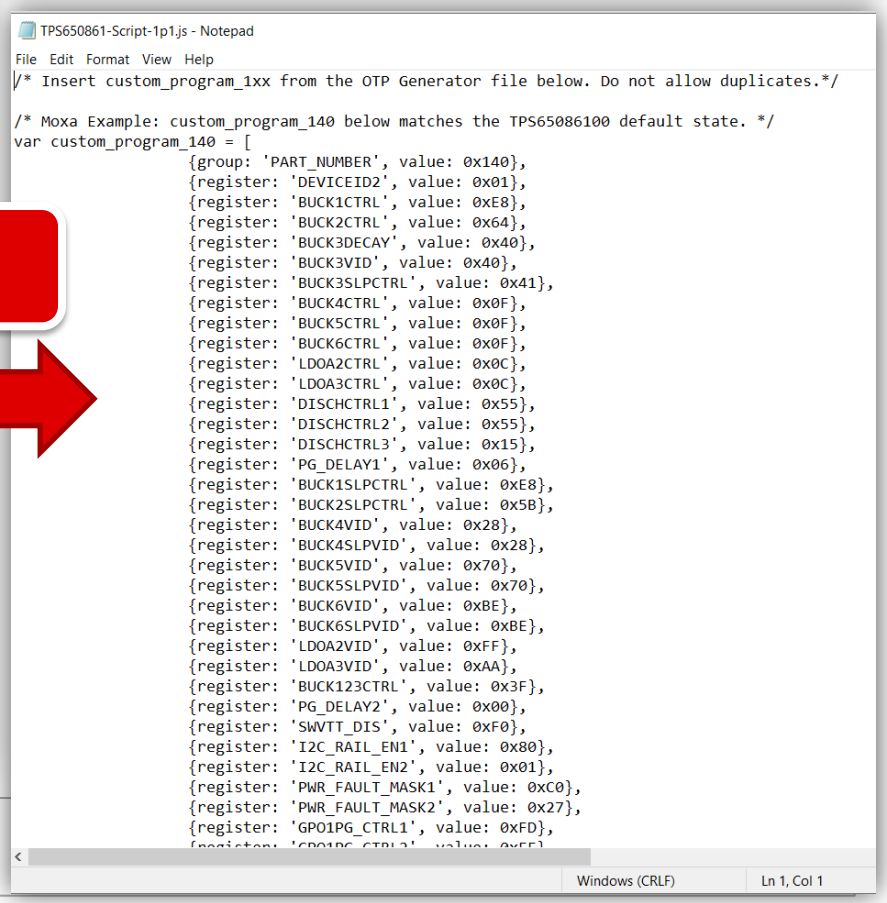
Programming code procedure

- 1. Copy purple column in the "Script Generator" tab and paste and replace to TPS650861-Script-1p0.js file
- Note: Use TPS6508640 setting.



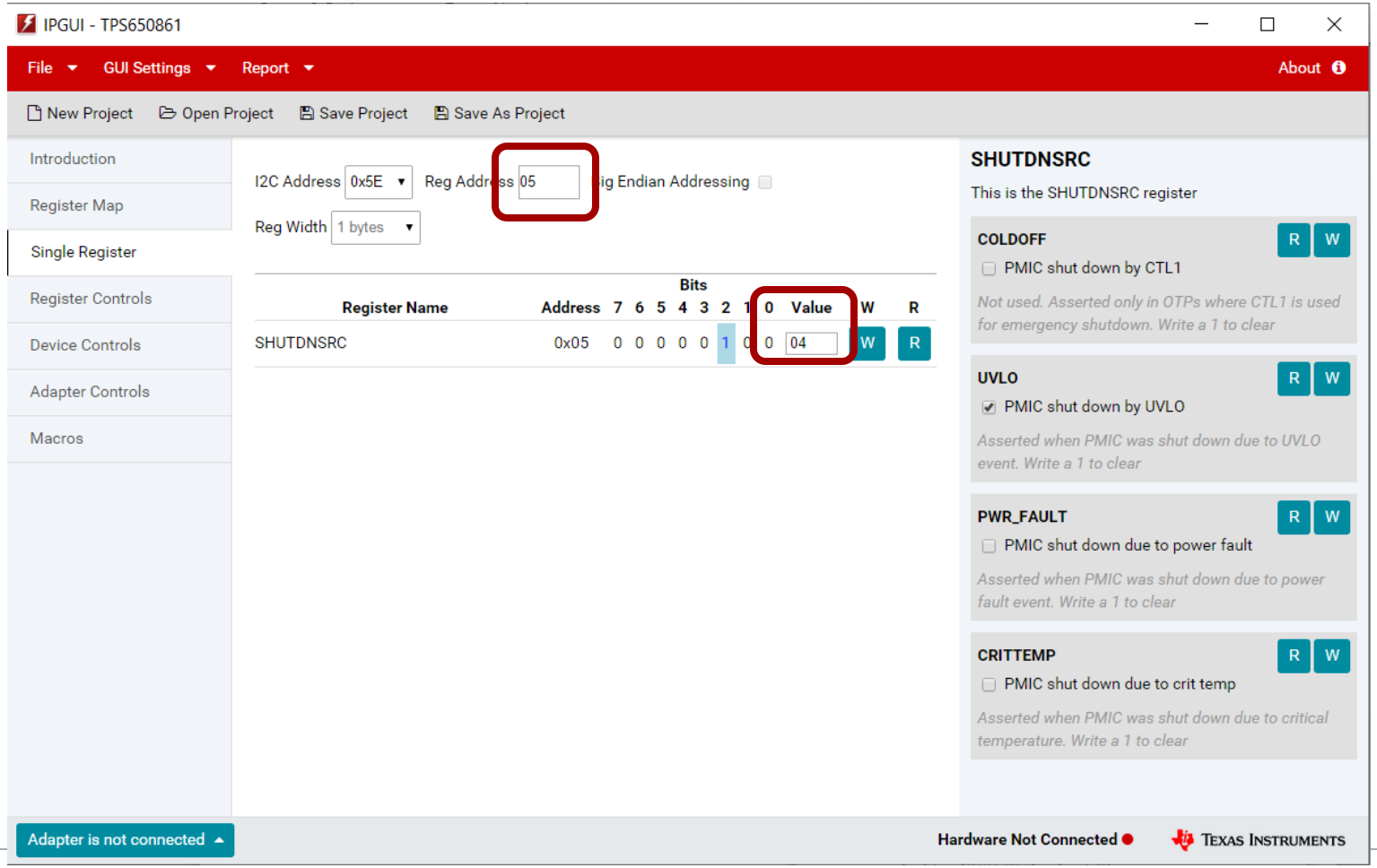


Copy, Replace and Save

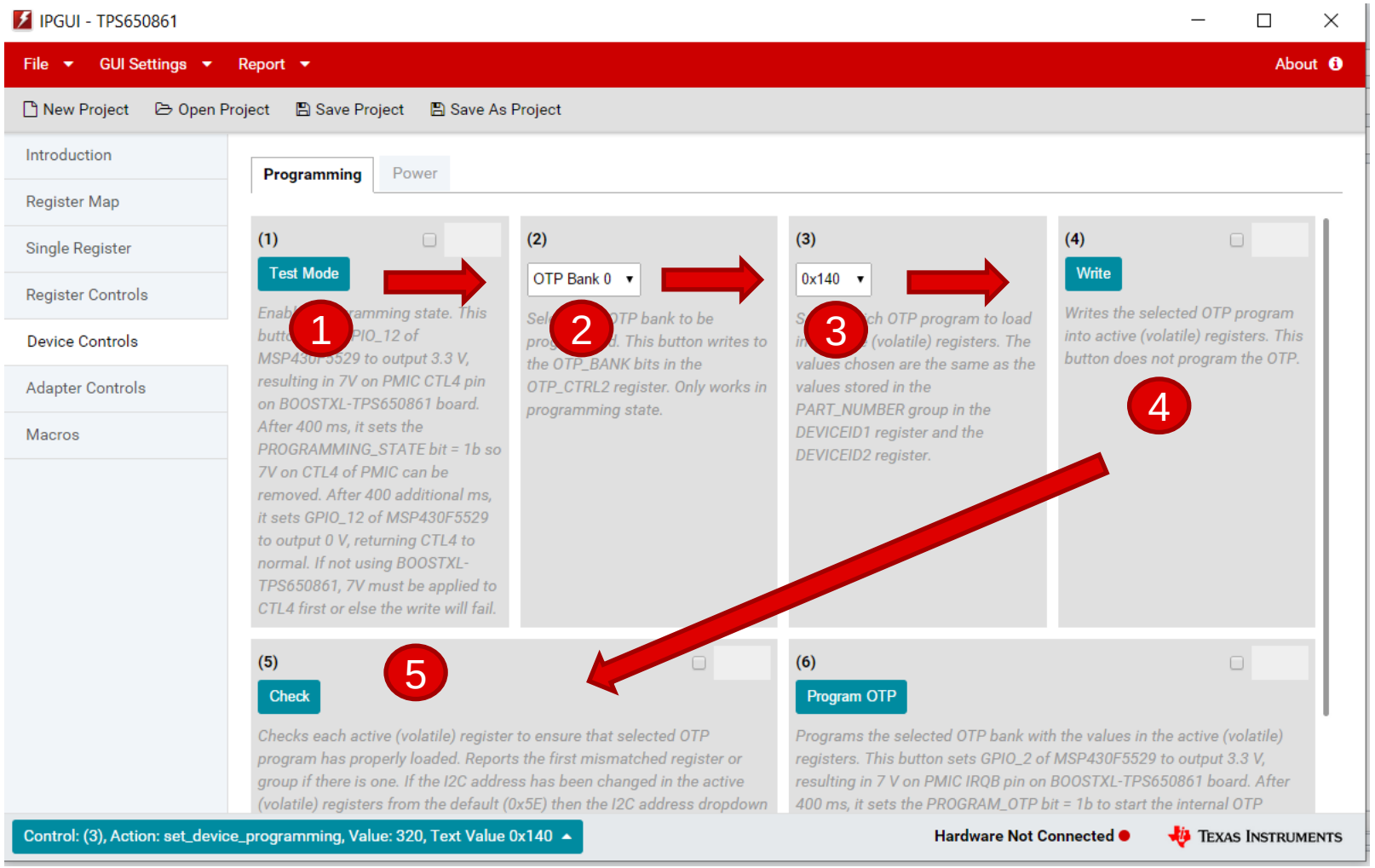


Programming code procedure

- 2. Open IPG-UI and make sure IPG-UI report hardware connected in the bottom.
- Read Register 0x05 and make sure the value is 04.

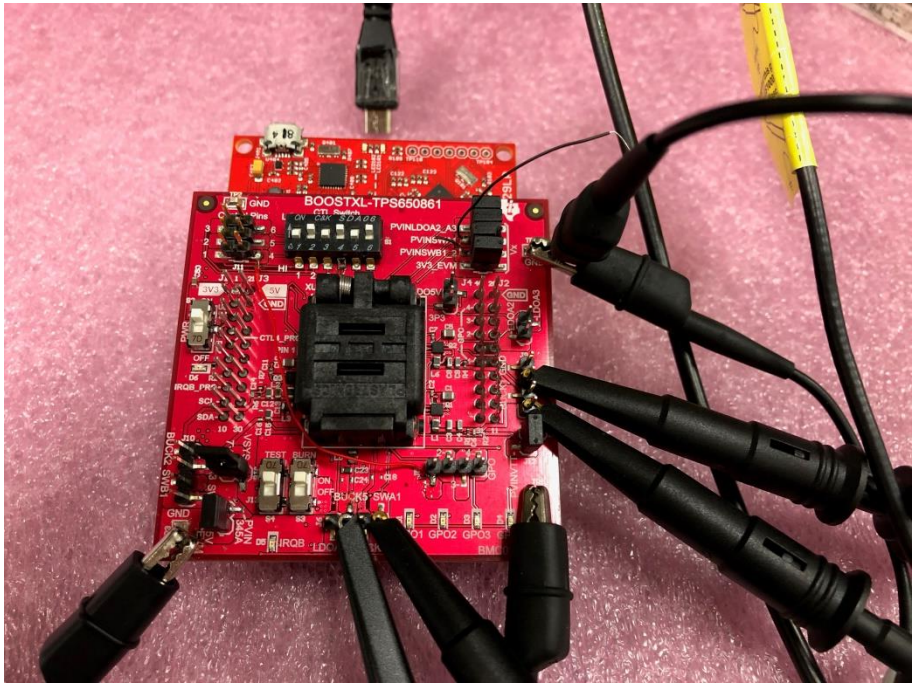


Programming code procedure



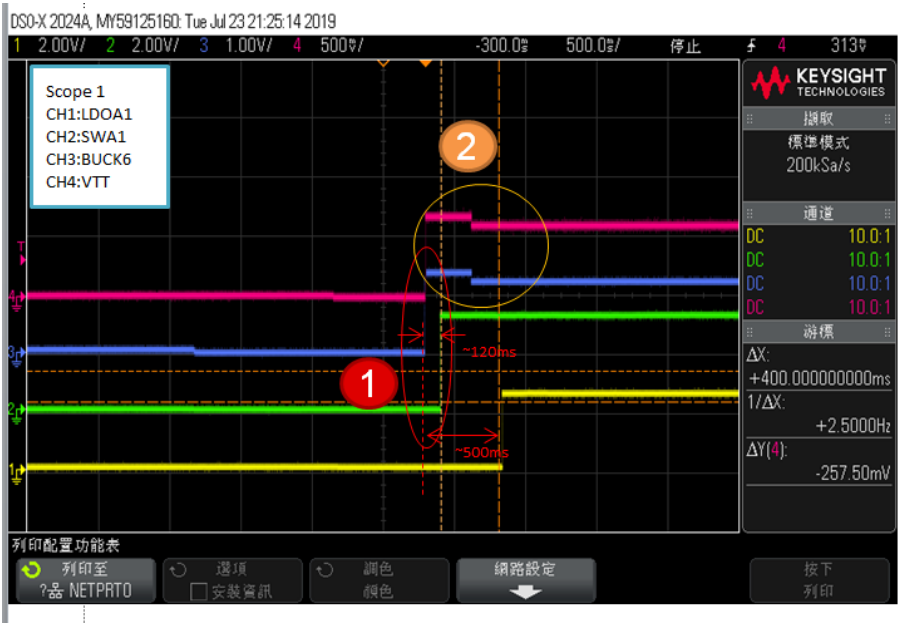
Tested Power performance

- Switch CTL5→CTL1→CTL3→CTL4 to HI in order and measure power performance.
- Note: Please ignore the position on CTL4 in this graph. We always put CTL4 to HI.



Measurement result

- The measurement result of power sequence is not align with TPS6508640 setting.



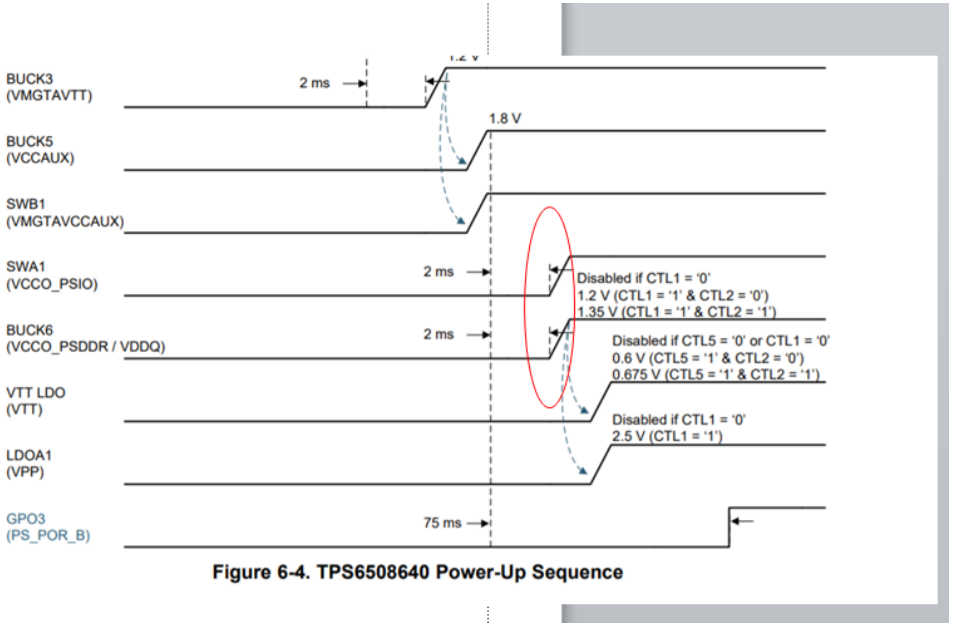
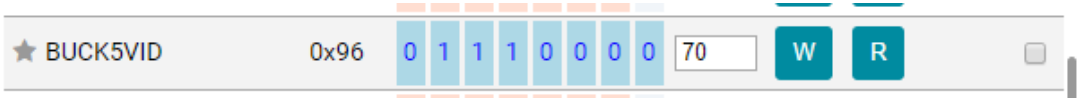


Figure 6-4. TPS6508640 Power-Up Sequence

Programming issue

- We doubt we did not program codes into TPS65086100. So we try to change buck5 voltage from 1.8V to 1V or 0.6V. And we use the programming procedure in previous slide. But buck5 voltage did not change and keep 1.8V. When I read register “BUCK5VID”, the register value keep the same (70).

Default Voltages			
Rail	**Voltage (V)**	**Step Size:**	**Default VID**
BUCK1_VID	3.300	25 mV	1110100
BUCK1_SLP_VID	-		1110100
BUCK2_VID	0.900	10 mV	0110010
BUCK2_SLP_VID	0.850		0101101
BUCK3_VID	1.200	25 mV	0100000
BUCK3_SLP_VID	-		0100000
BUCK4_VID	0.900	25 mV	0010100
BUCK4_SLP_VID	-		0010100
BUCK5_VID	1.000	25 mV	0011000
BUCK5_SLP_VID	-		0011000
BUCK6_VID	1.350	10 mV	1011111
BUCK6_SLP_VID	-		1011111
BUCK6 (CTL2 Alternate)	1.200		
LDOA1_VID	2.5		1010
LDOA2_VID	1.5		1111
LDOA2_SLP_VID	-		1111
LDOA3_VID	1.2		1010
LDOA3_SLP_VID	-		1010



Programming issue

- After we try to many setting, we write TPS6508640 code again. But we got different power performance.