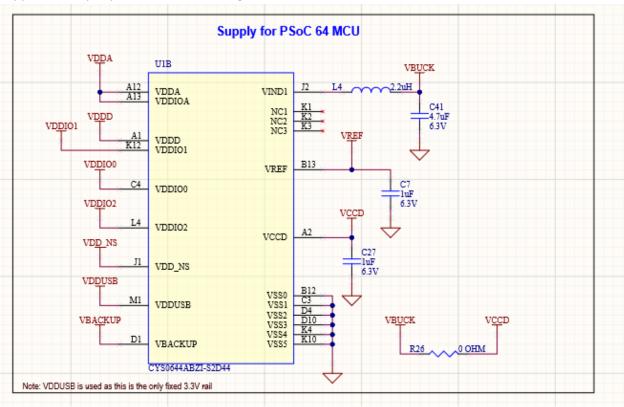
PSoC64 Buck Regulator Problem

We are using the CY8CMOD-064S0S2-4343W board design developed by Cypress and have created an identical board called Cloud Lock.

On the new Cloud Lock board the VCCD input supply is designed to use the internal Buck regulator as the source, same as the original design.

VDD_NS is sourced off board using a 2.5vdc supply and is the source for the internal buck regulator. The output of the internal buck regulator is VIND1 this goes through a 2.2uH inductor to VBUCK which supplies the input power to VCCD through a zero ohm resistor (R26).



When the power is first applied to the board there is no output from the internal buck on VIND1 and in looking at the TRM for the P64

(002-30351_PSoC_64_Secure_Boot_MCU_CYB0644ABZI-

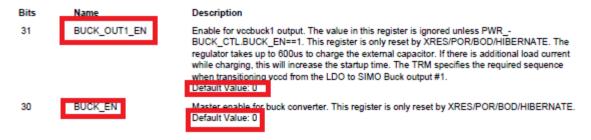
S2D44_Registers_Technical_Reference_Manual_TRM_PSoC_64_MCU) the buck defaults to an "OFF" state:

8.1.4 PWR_BUCK_CTL

Buck Control Register Address: 0x40260014 Retention: Retained

Protected Register Access: FUNCTION_POLICY

Bits	7	6	5	4	3	2	1	0
SW Access	None RW							
HW Access	None					A		
Name	None [7:3]					BUCK_OUT1_SEL [2:0]		
D:4-	1 45	44	40	40	**	40		
Bits	15	14	13	12	11	10	9	8
SW Access	None							
HW Access	None							
Name	None [15:8]							
Bits	23	22	21	20	19	18	17	16
SW Access	None							
HW Access	None							
Name	None [23:16]							
Bits	31	30	29	28	27	26	25	24
SW Access	RW	RW	None					
HW Access	A	Α	None					
Name	BUCK_OUT 1_EN	BUCK_EN	None [29:24]					



The first-time power is applied to the P64 how do we get the buck regulator to output so we can get the device operational?