

I am having a problem bringing up my RT1171 processor design with the 24 MHz oscillator not running. I found in the datasheet that the oscillator is part of the LPSR_ANA domain. The oscillator section does not seem to have power as the pins on the crystal are both low when power is applied to the board.

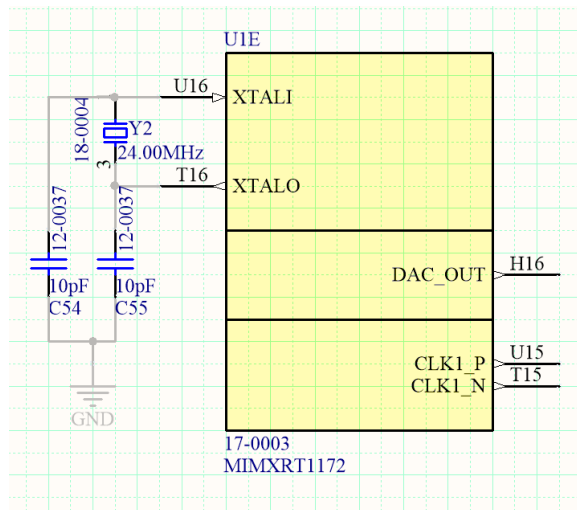
I have measured my voltage on the VDD_LPSR_IN pin which is 3.3VDC (R12) and the VDD_LPSR_ANA pin which is 1.82VDC (P12). I am not using any of the ADC or DAC functions in the processor so I have not powered this part of the processor, however I did connect power to pin J13, VDDA_ADC_3P3, just to see if this would change the voltage on the crystal pins but nothing changed.

I have also read Application note AN3208 and changed my load capacitance but with both the crystal pins being at the same level (0) I don't know how the oscillator could start.

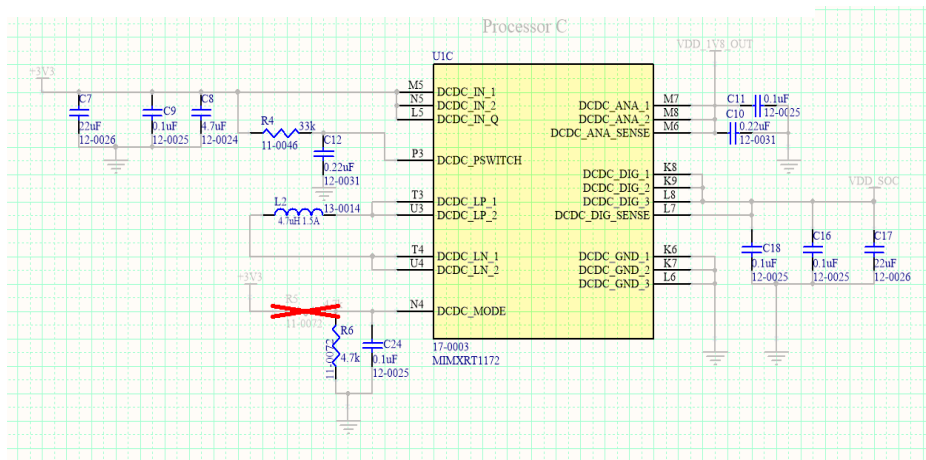
I have another new board using the RT105X processor that uses the same crystal for my 24MHz oscillator and this oscillator and processor is running.

My RTC oscillator is running when power is applied to the board and I am seeing 32.768 kHz on the crystal pins.

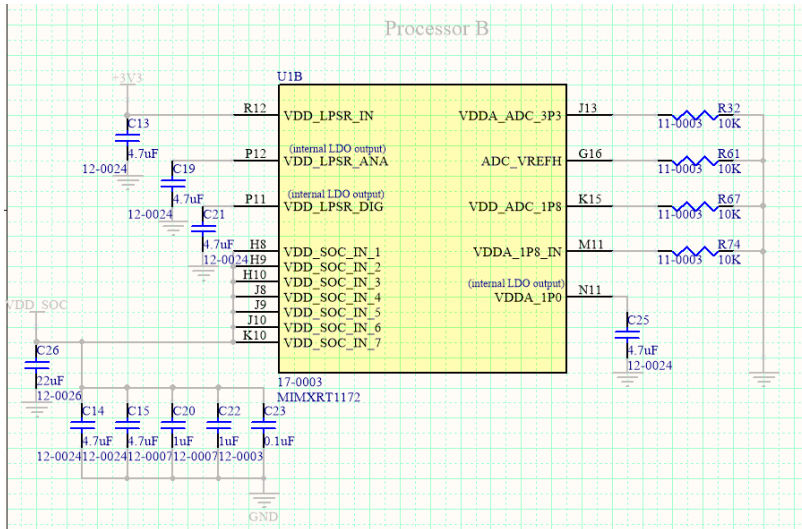
Below are the blocks of the processor I believe are associated with the oscillator. Let me know if you need any other information. Any help or direction would be appreciated.



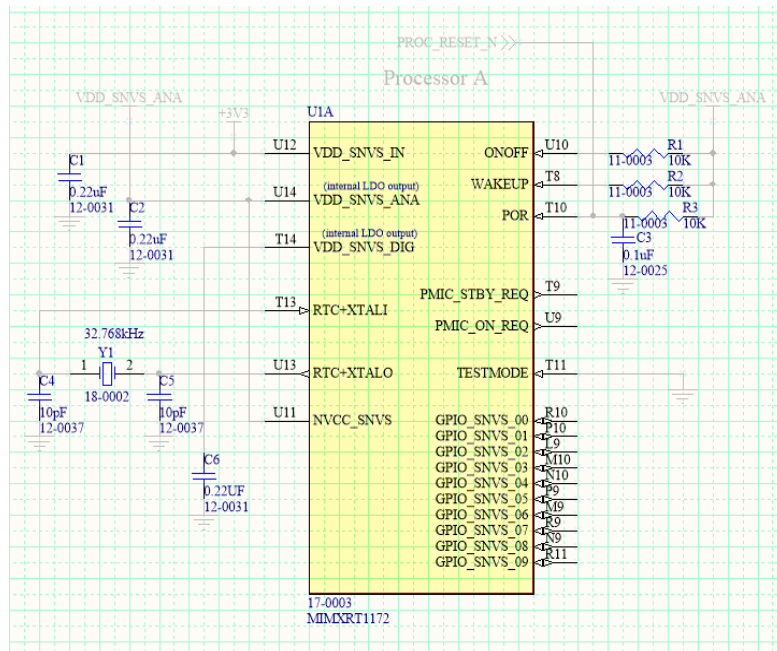
24 MHz Crystal, RT117X Processor Block



DCDC Power Supply Processor Block



VDD_LPSR Power Domain



RTC oscillator runs, POR is high.