Experiment 4 – Integrated System

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I. FREQUENCY MULTIPLIER

Figure 1 shows state diagram of the controller. And Figure 2 shows waveform testbench.
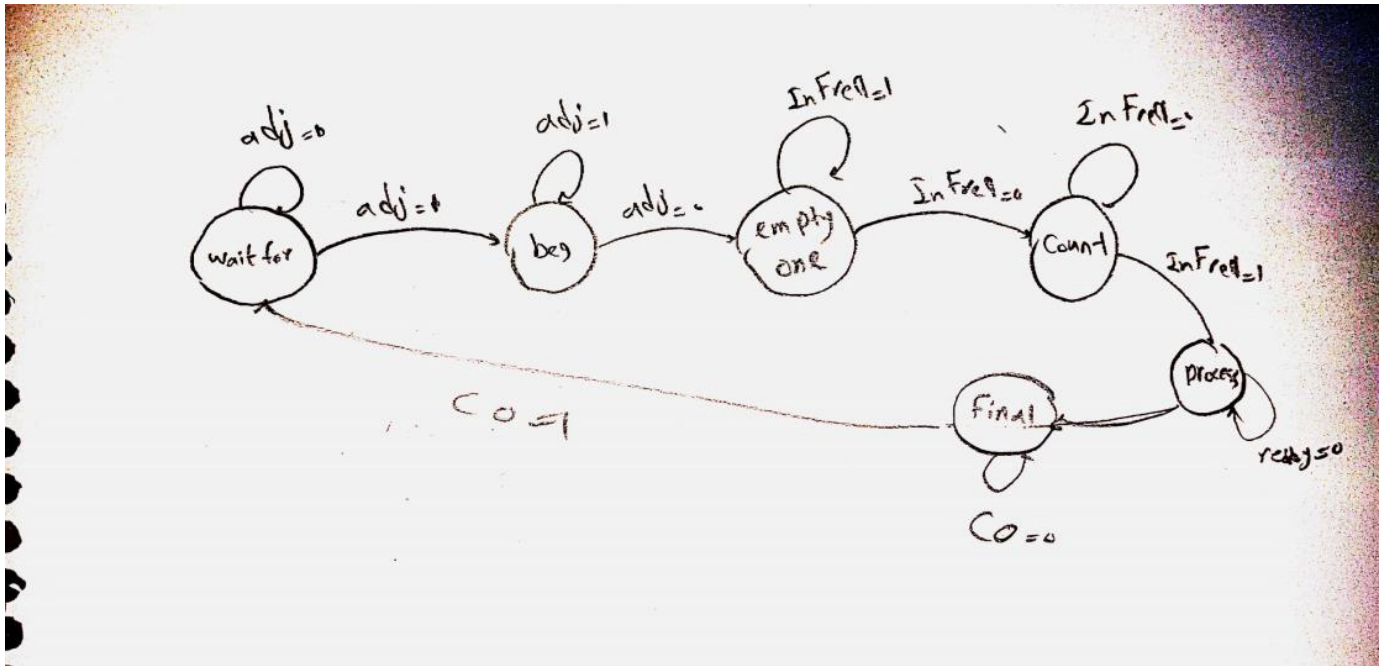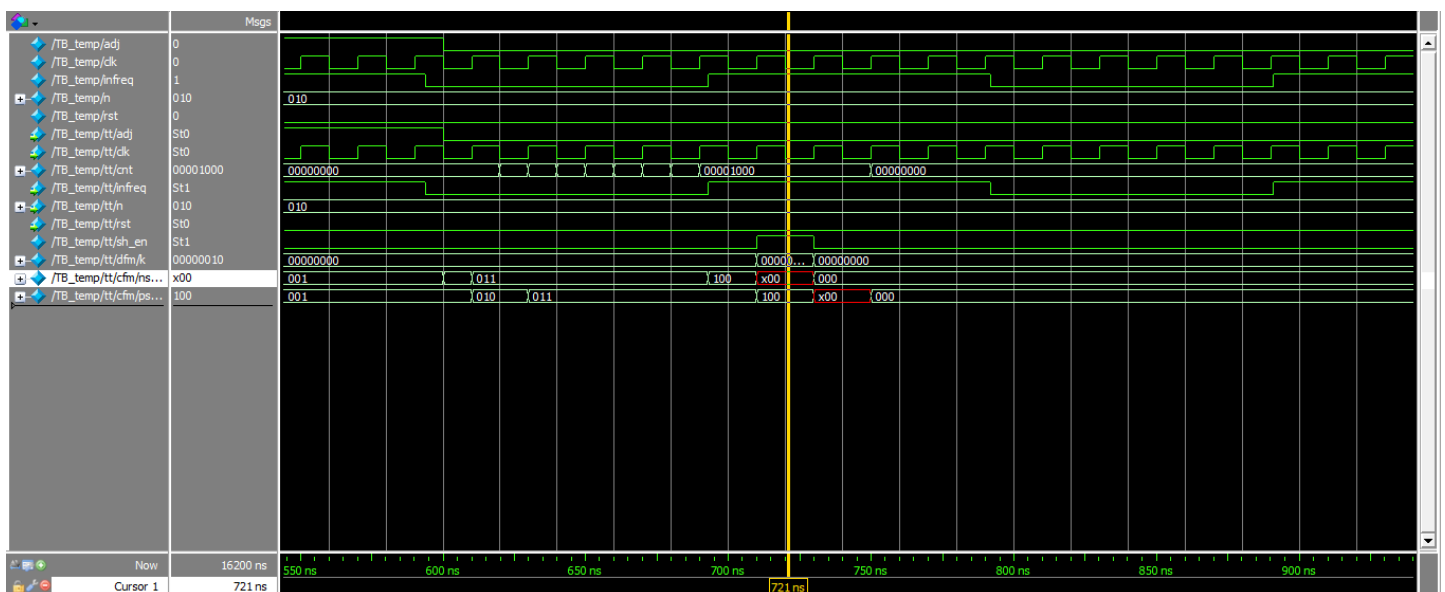

Figure 1

Figure 2

II.   EXPONENTIAL ACCELERATOR   In Figure 3 we can see three outputs for different values for x.
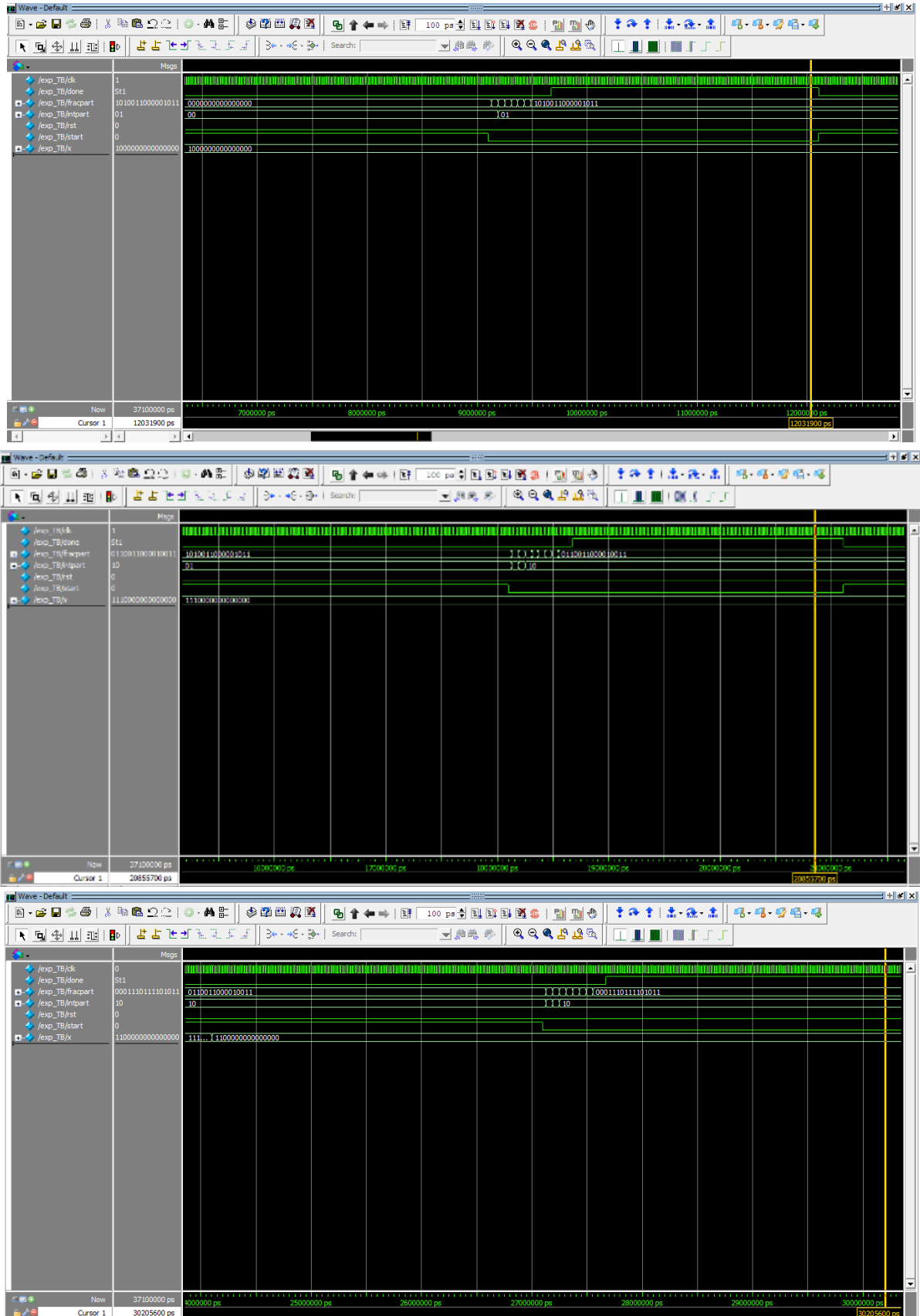

Figure 3

And in figure 4 we can see synthesis report. And Figure 5
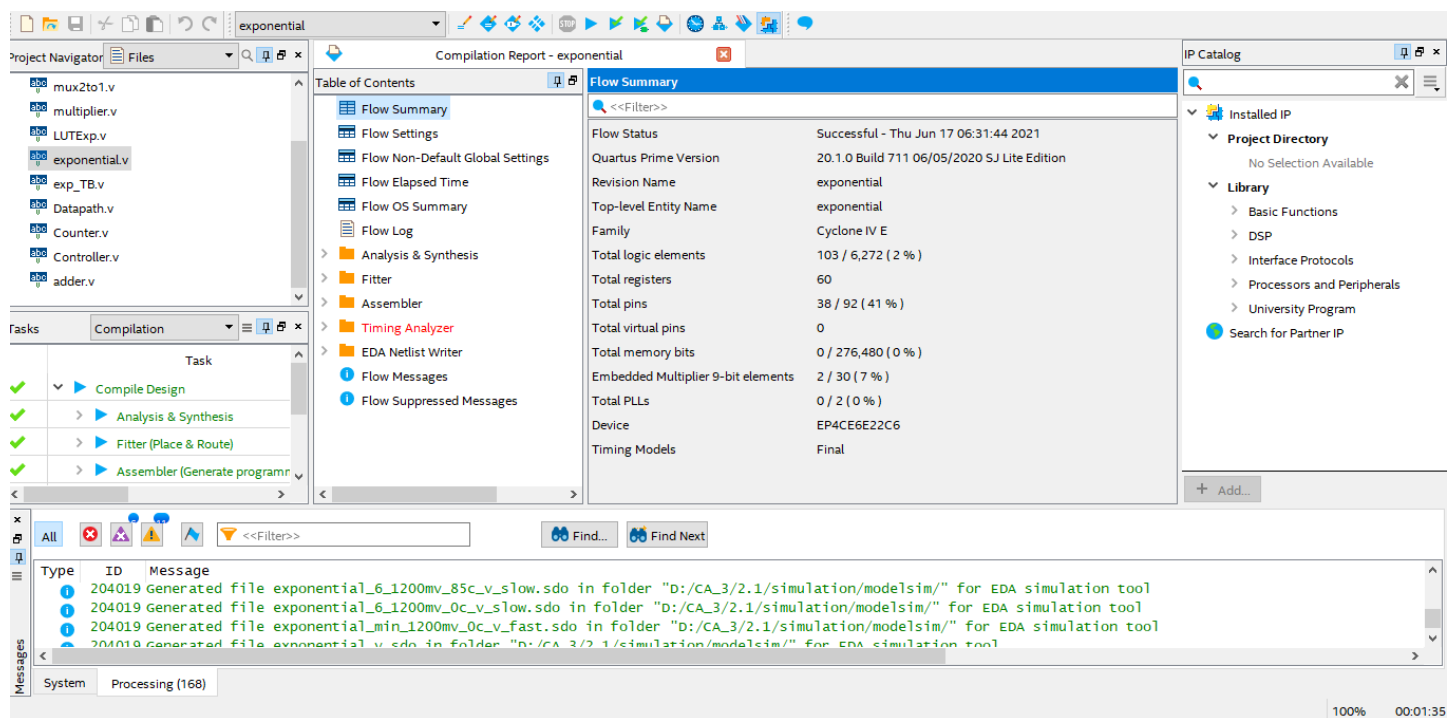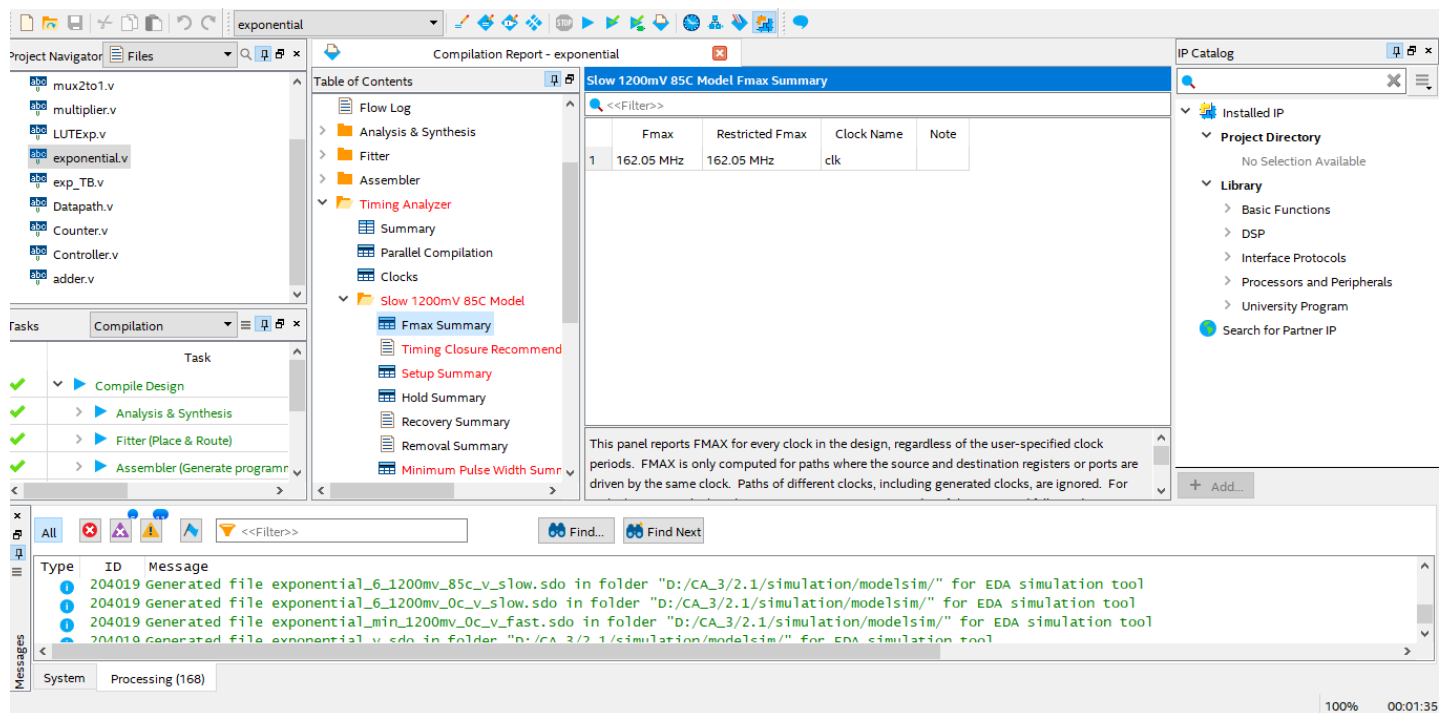shows timing analysis.

Figure 4

Figure 5

B. Exponential Accelerator wrapper
   Figure 6 shows state diagram of controller of this
   part. And Figure 7 shows sunthesied model.
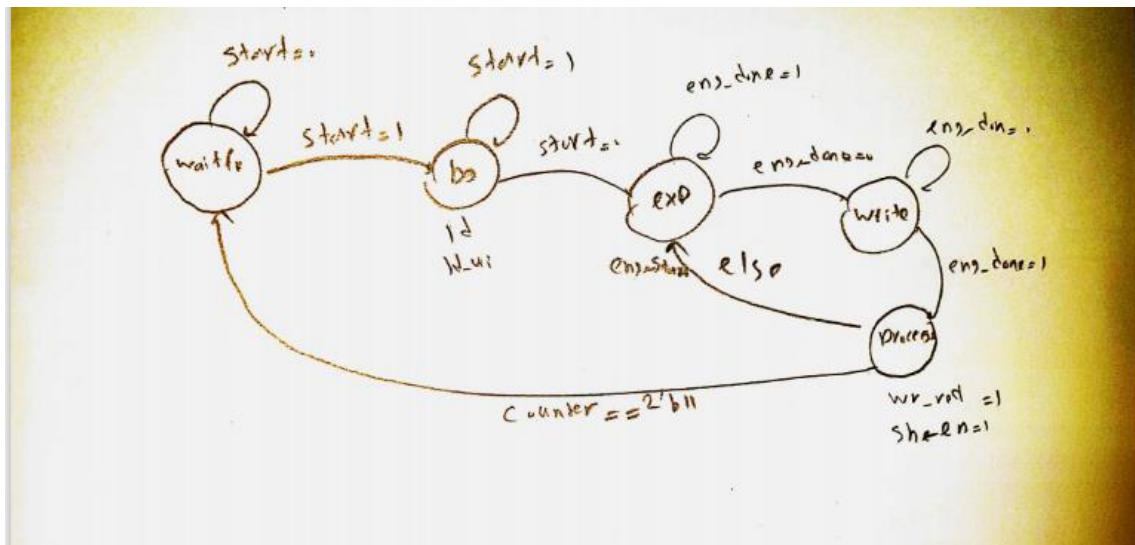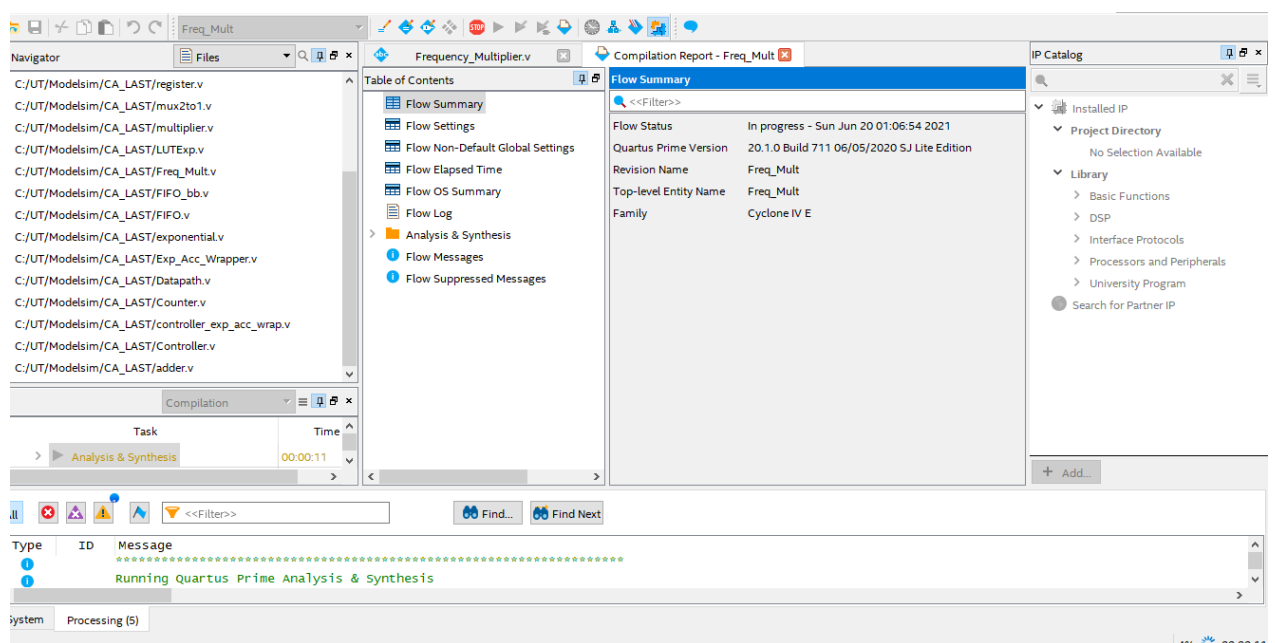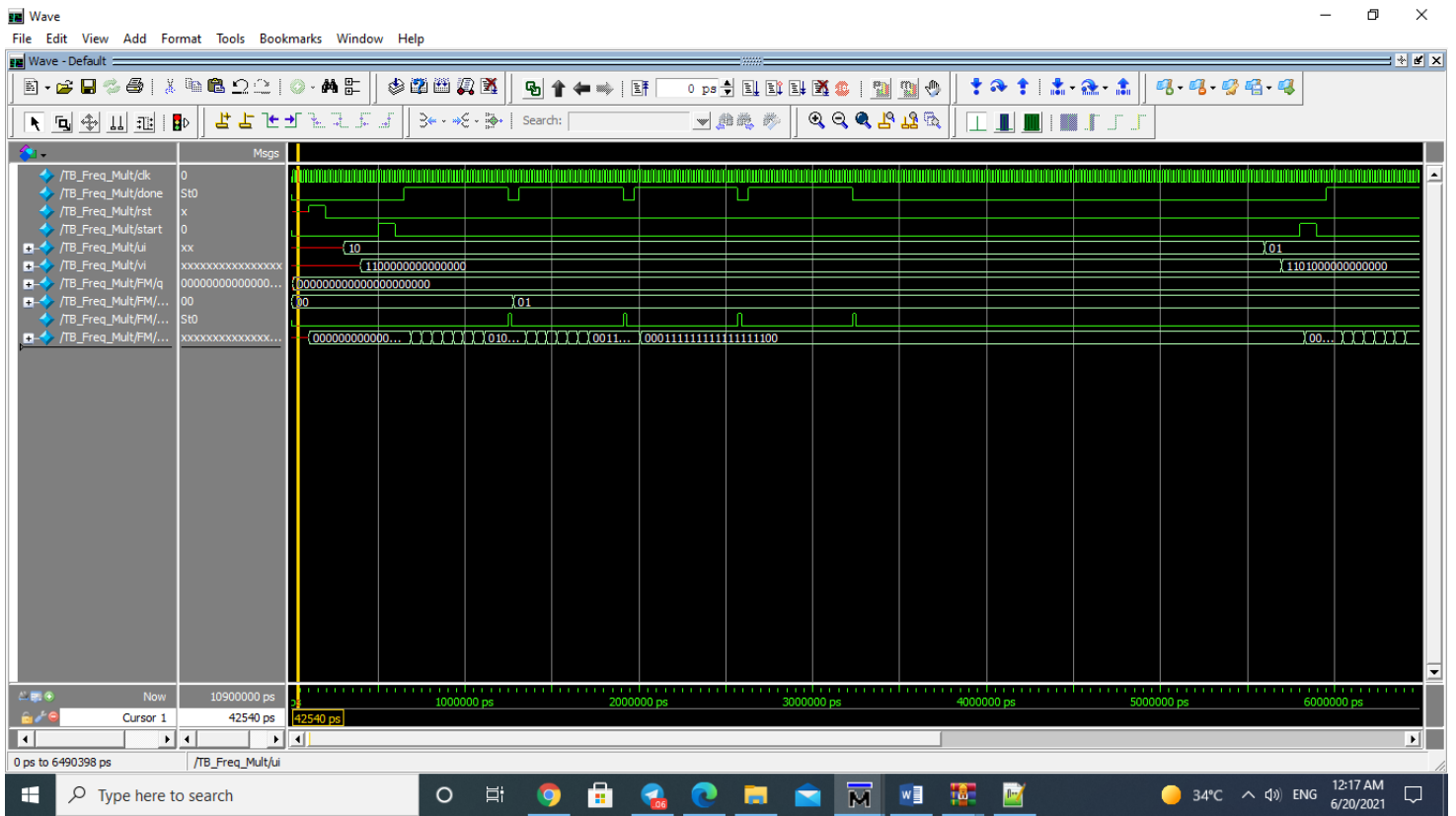   And Figure 8 shows output wave form.

Figure 6

Figure 7

Figure 8

FOR PART 3 I didn't synthesis I just write testbench and top level.