

Experiment 3 – Function Generator

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I. WAVEFORM GENERATOR

In Figure 2 synthesis summary has been included.

Figure 1 shows different waves generated by Waveform Generator Processor.

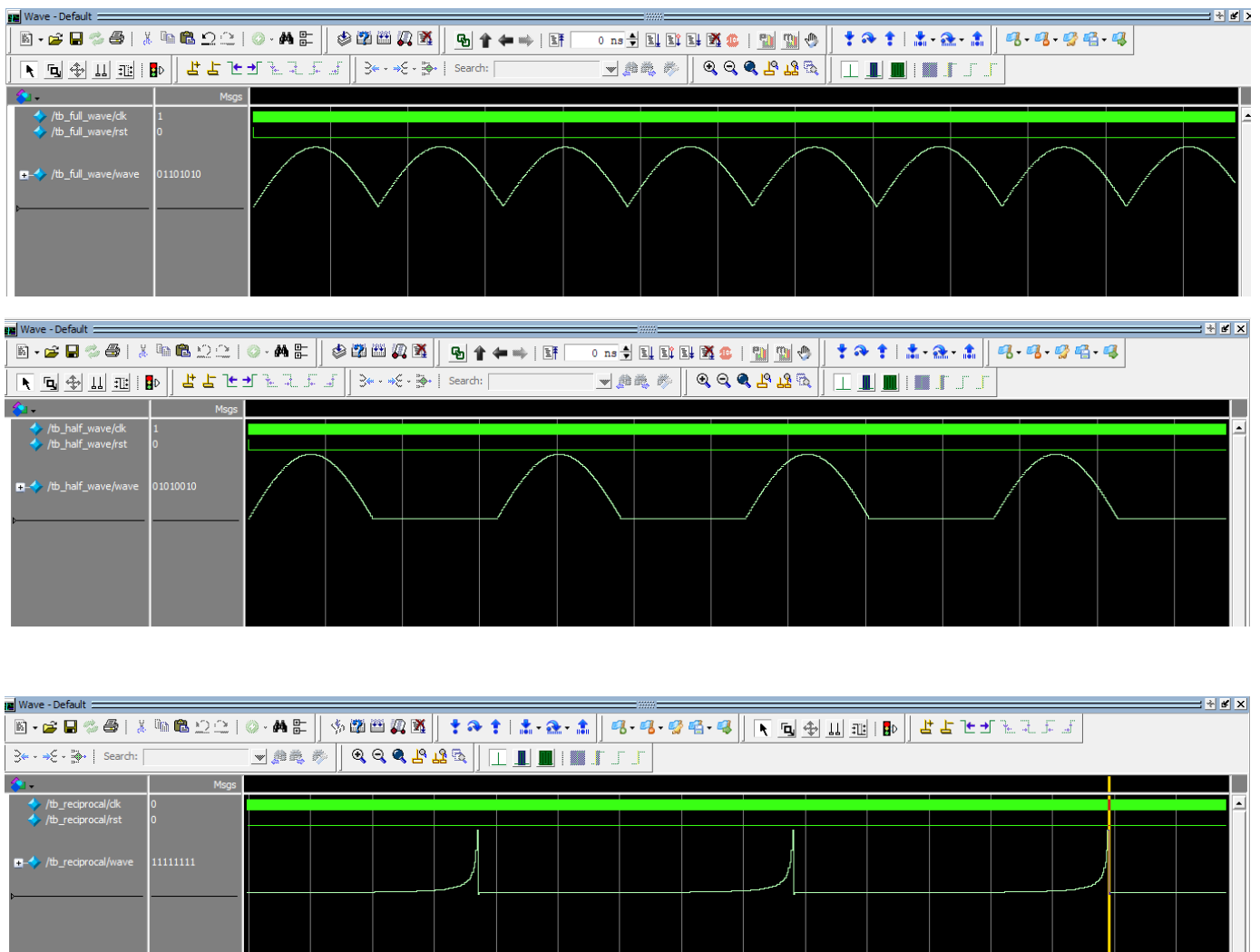


Figure 1

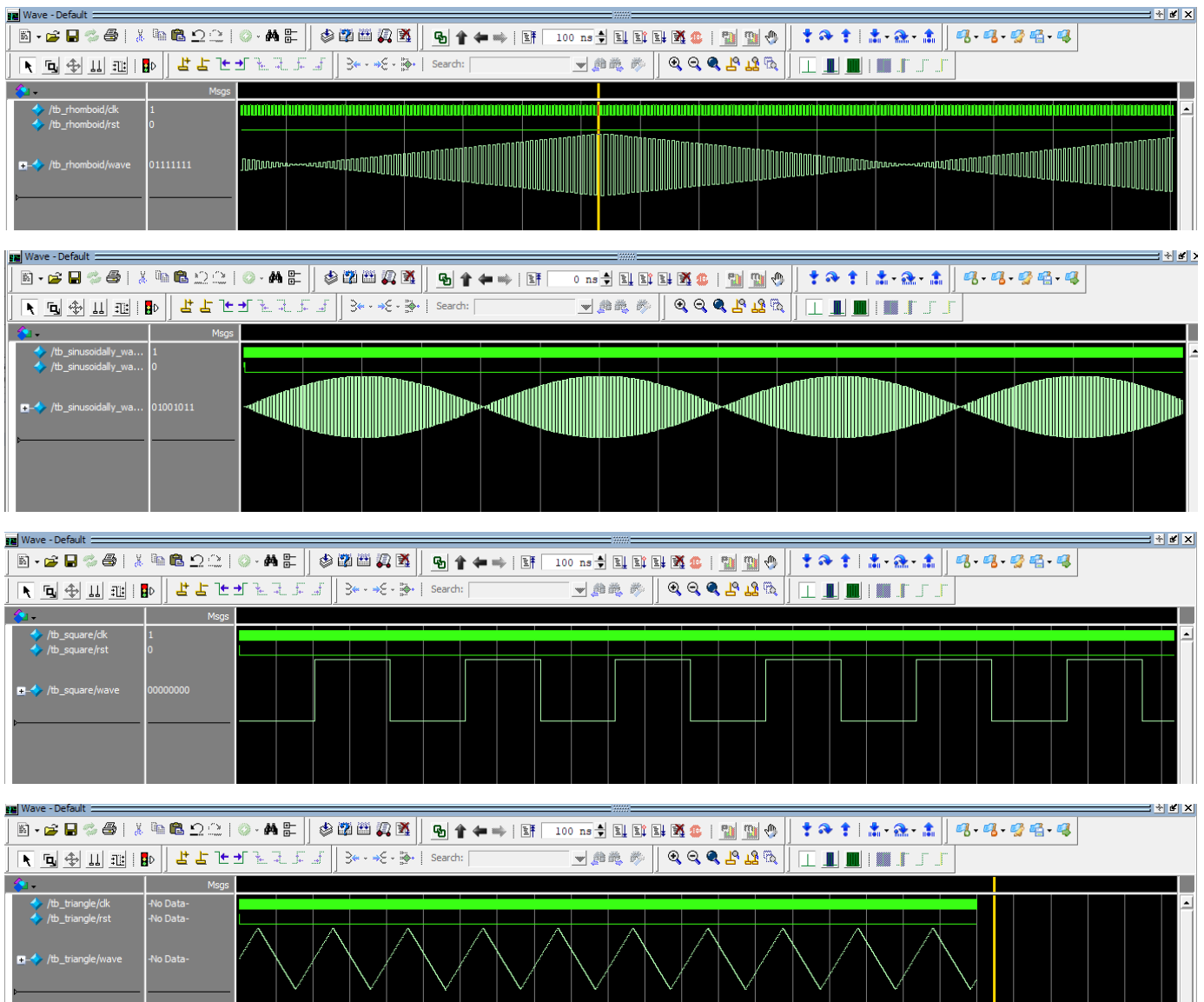


Figure 1

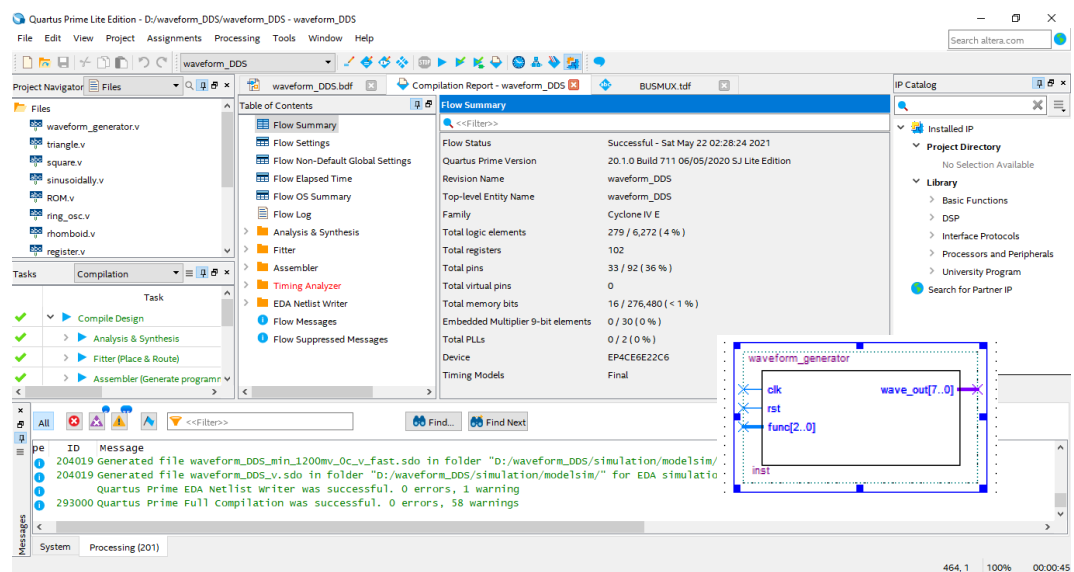


Figure 2

II. FREQUENCY SELECTOR

Figure 3 shows how I added clock divider

To my waveform generator and DDS-ROM. And syntheses is in Figure6.

In Figure 4 as requested I changed setperiod input for three frequencies and this is the part of that wave form. In Figure 5, its shown that wave shrinks due to phase control value. As much as phase control gets bigger, wave shrinks more. So if we use x instead of one for phase control, the frequency multiplies by x.

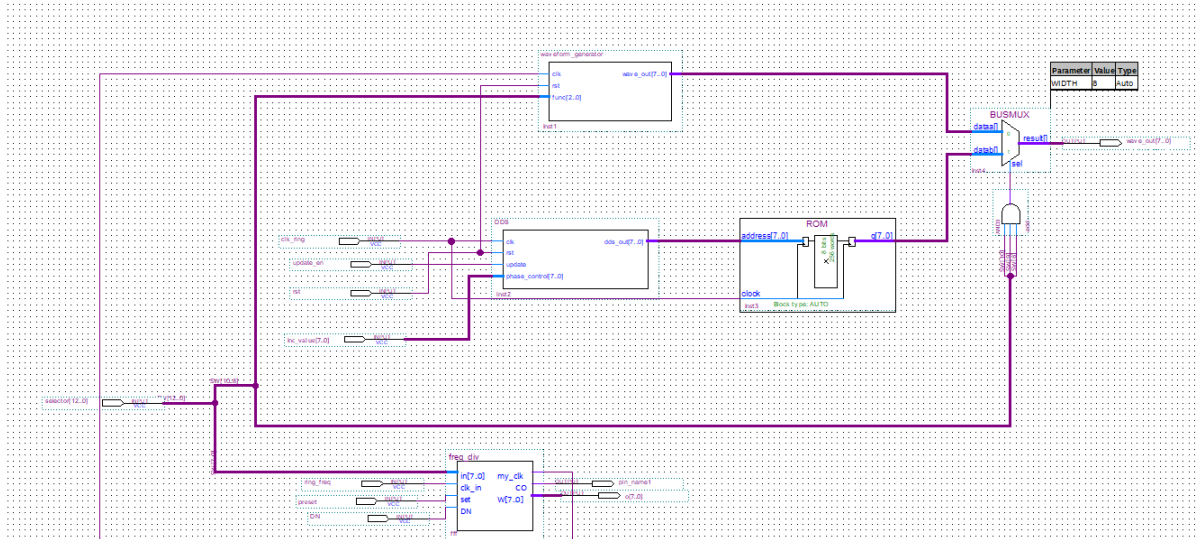


Figure 3

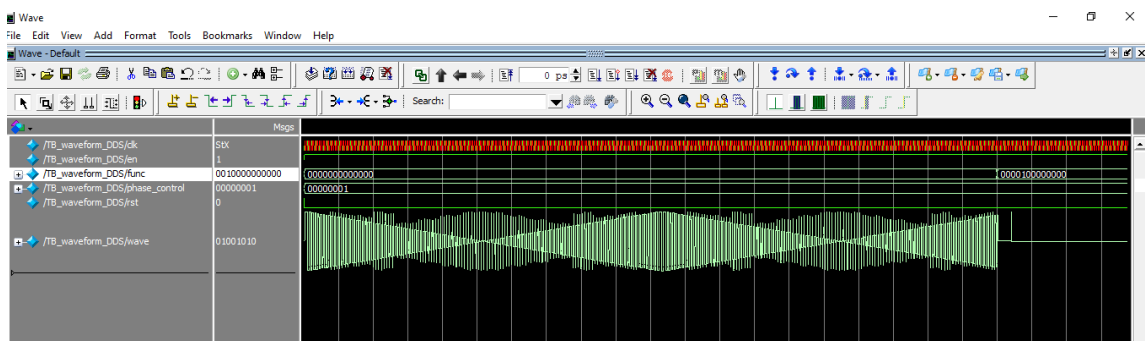


Figure 4

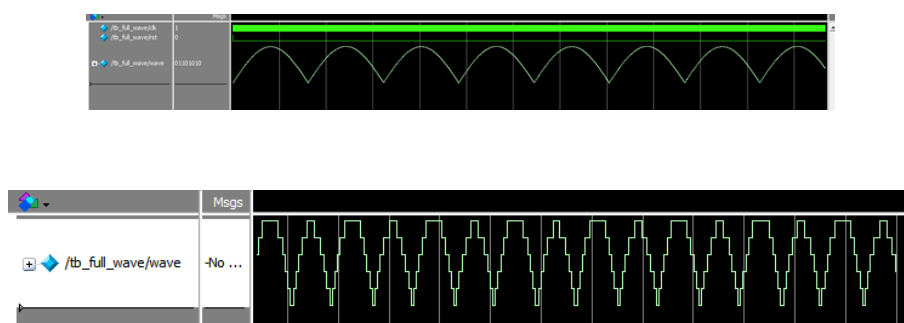


Figure 5

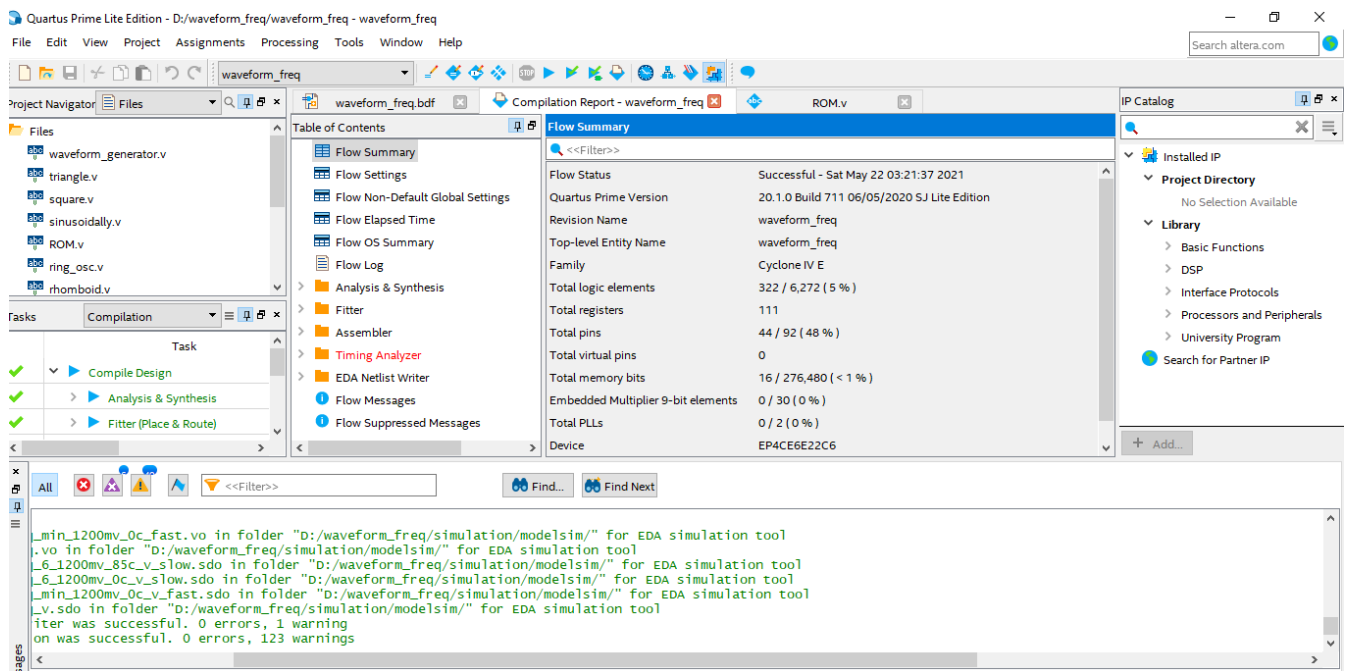


Figure 6

III. AMPLITUDE SELECTOR

In Figure 7 shows synthesis summary.

In Figure 8 show wave form after adding this amplitude block

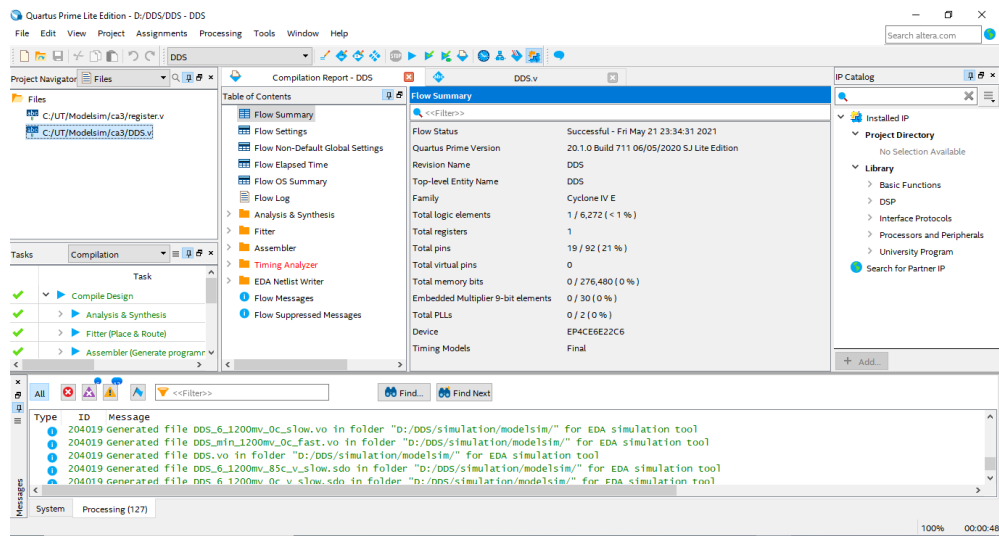


Figure 6

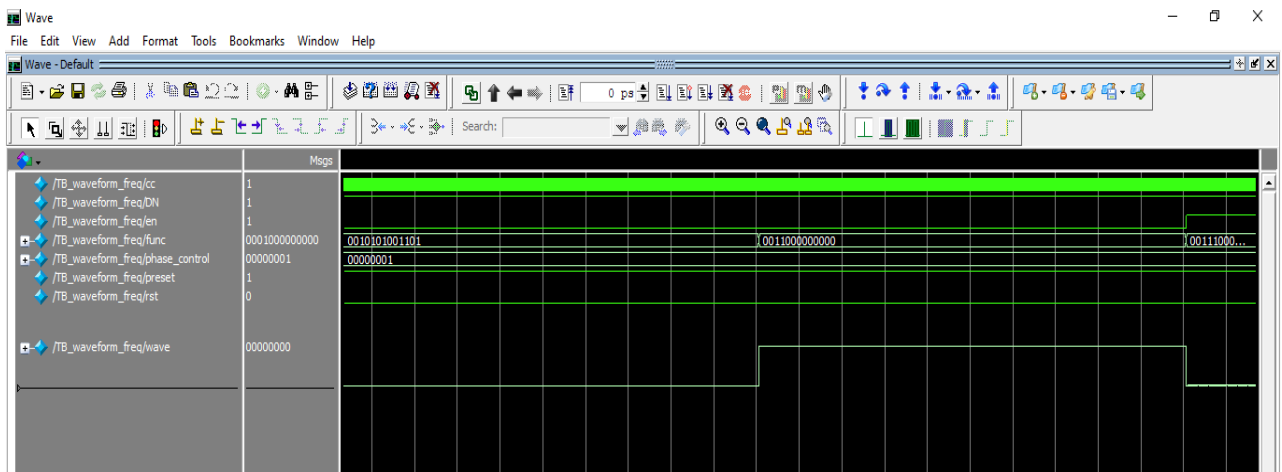


Figure 7

