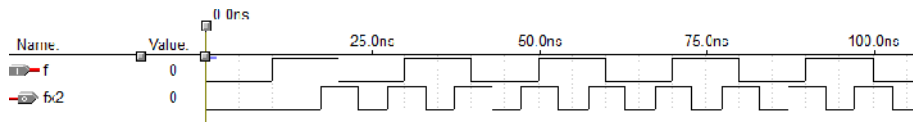


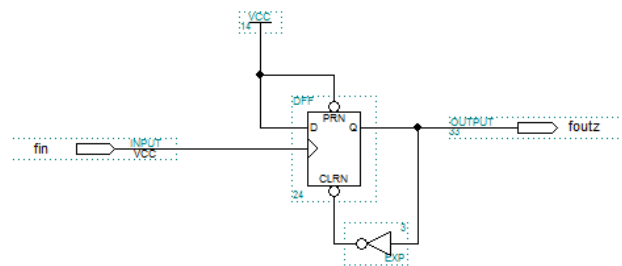
. 1.

2

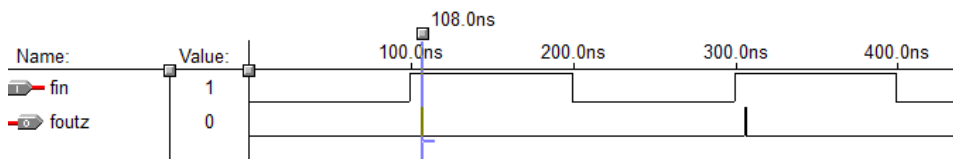


. 2.

2



. 3.



. 4.

$$F_{fx2} = \frac{1}{T_{in}} + \frac{1}{T_{in}} = \frac{2}{T_{in}} = 2 \cdot F_{in}, \quad (1)$$

T_{in} –
 F_{in} –

. 4

8

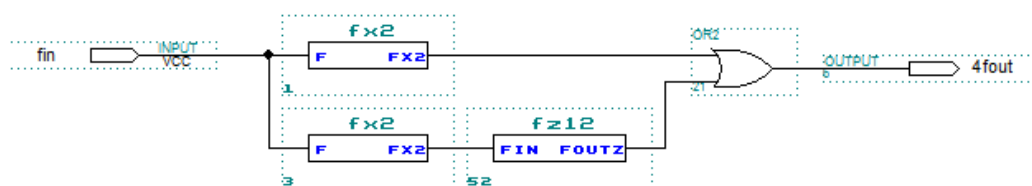
4

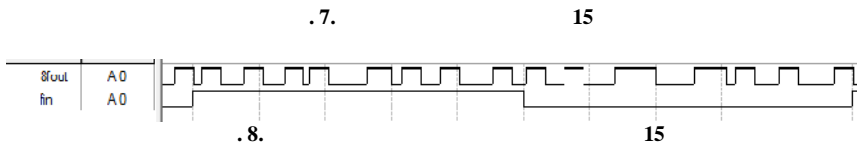
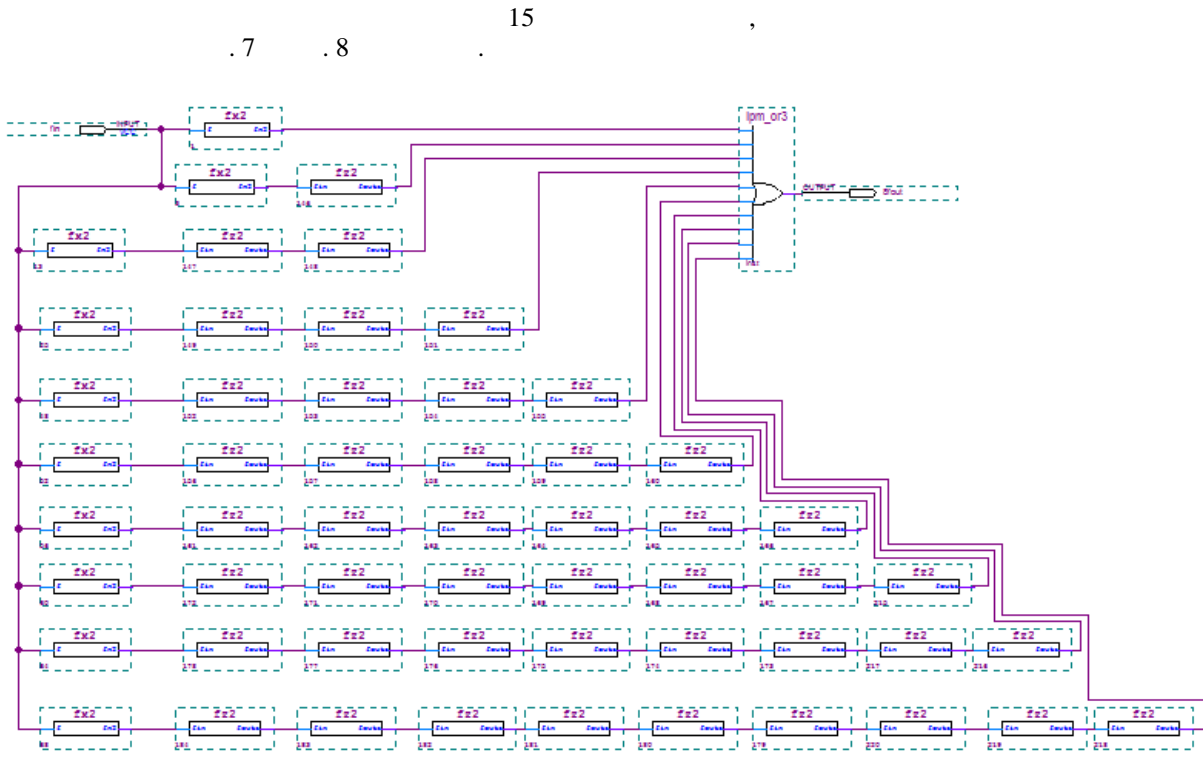
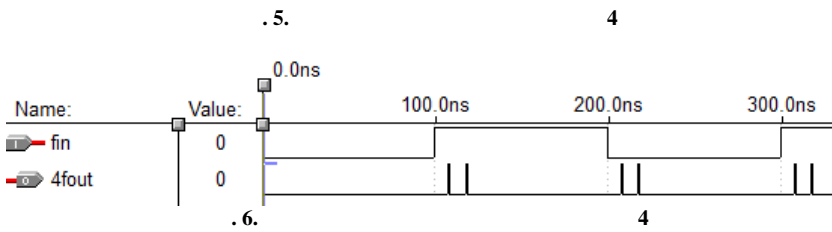
2

. 5 6

$$F_{fx2} = \frac{1}{T_{in}} + \frac{2}{T_{in} + 12 \cdot T_z} = \frac{2T_{in} + 24T_z + 2T_{in}}{T_{in}^2 + 12T_{in}T_z} \approx 4 \cdot F_{in}, \quad (2)$$

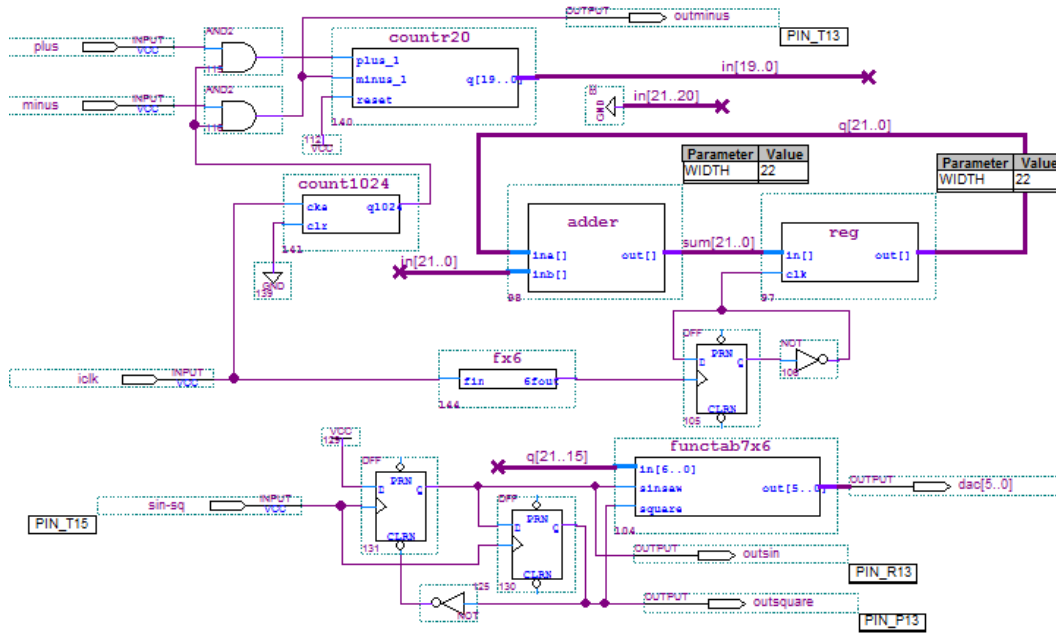
z –



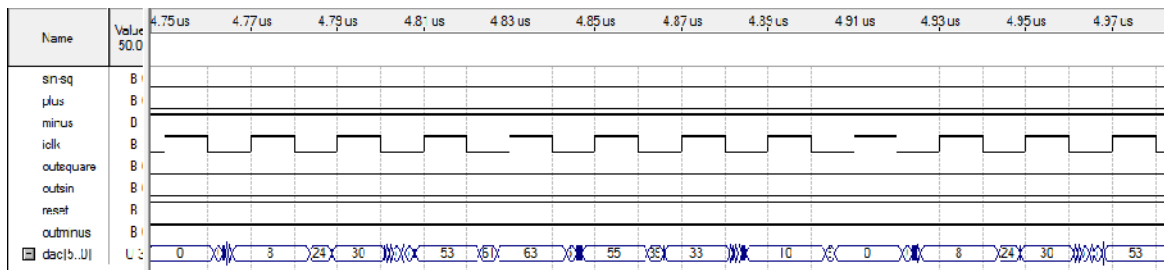


(. 9) (fx6)
 (. 10), Quartus [4]

count20. plus q, AND2, count20 minus -
 count1024.
 count20 adder.
 reg, countr20 reg D-
 fx6, 8 D-
 functab7x6. reg
 sinsaw square
 :
 sinsaw square
 D-
 dac[5..0] functab7x6



.9.



.10.

2,4 15.

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<https://www.altera.com/products/design-software/fpga-design/quartus-prime/overview.html>.

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