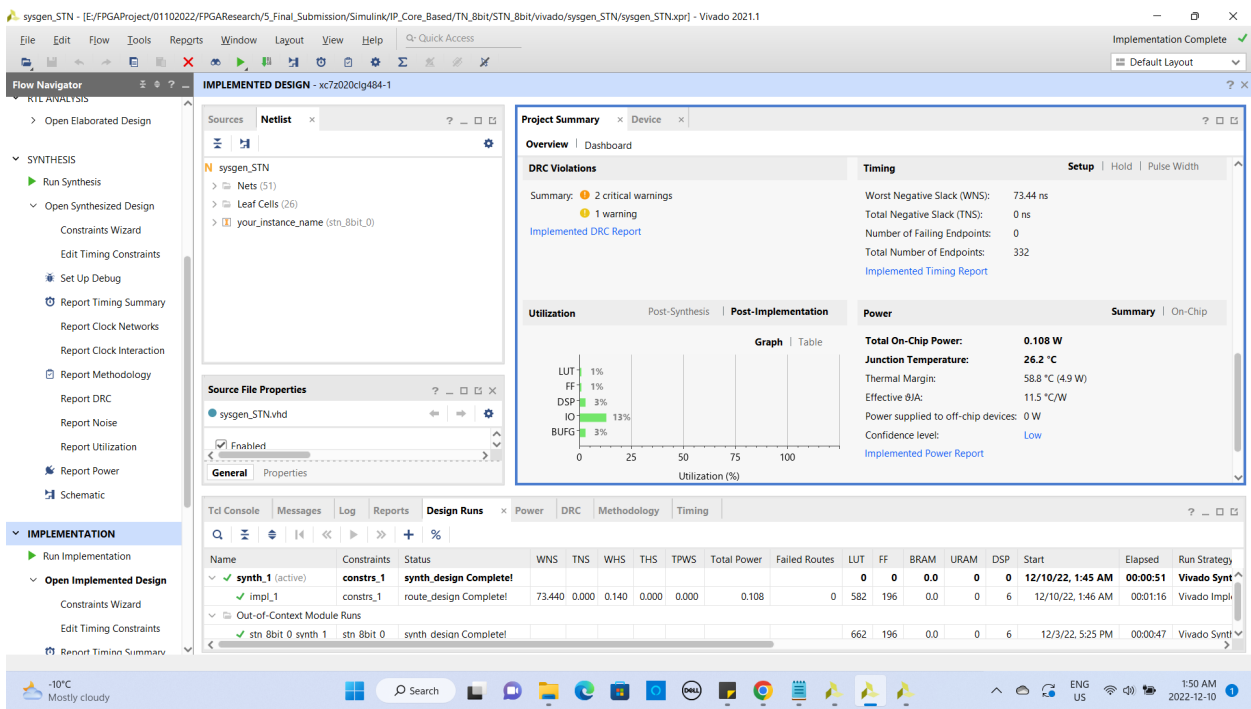
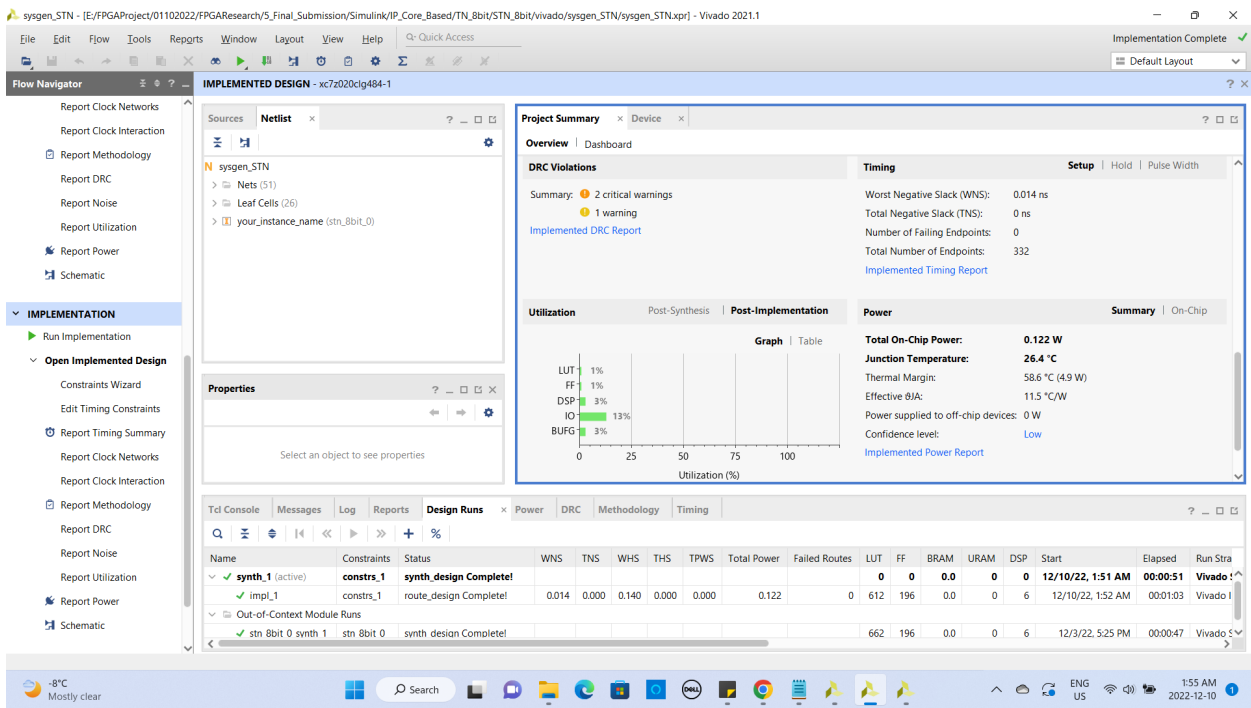


8-bit IP\_Core

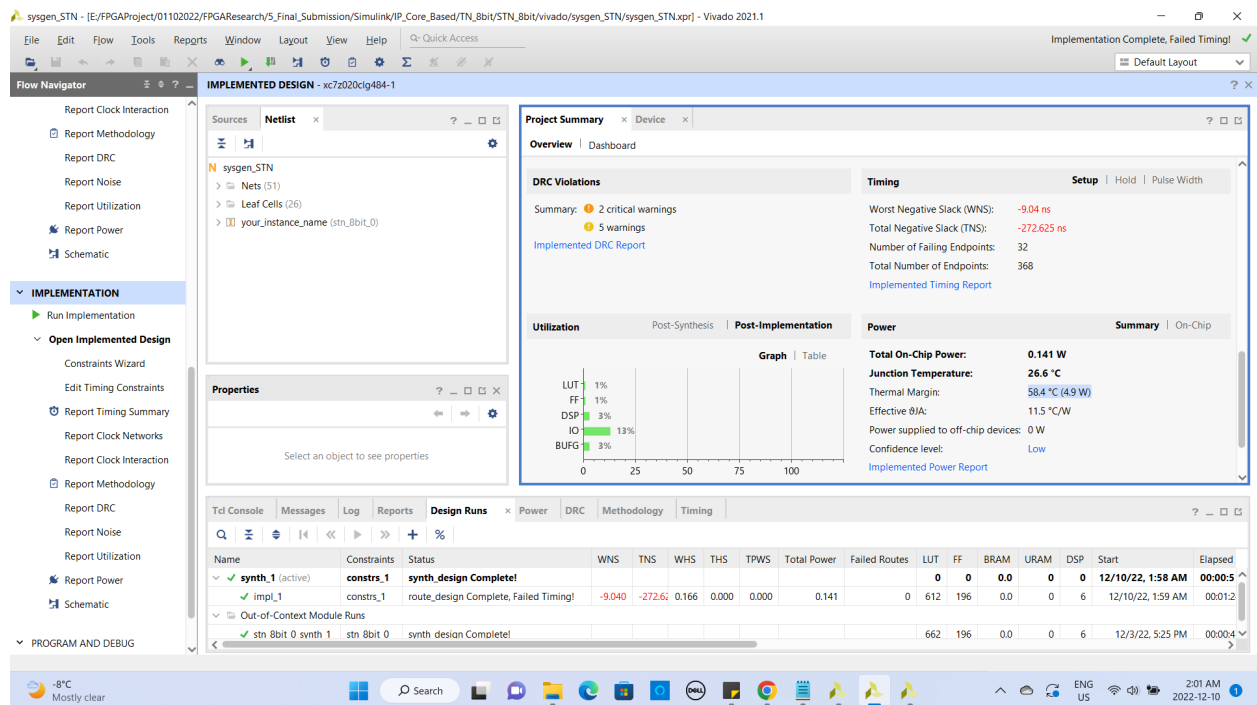
10MHz



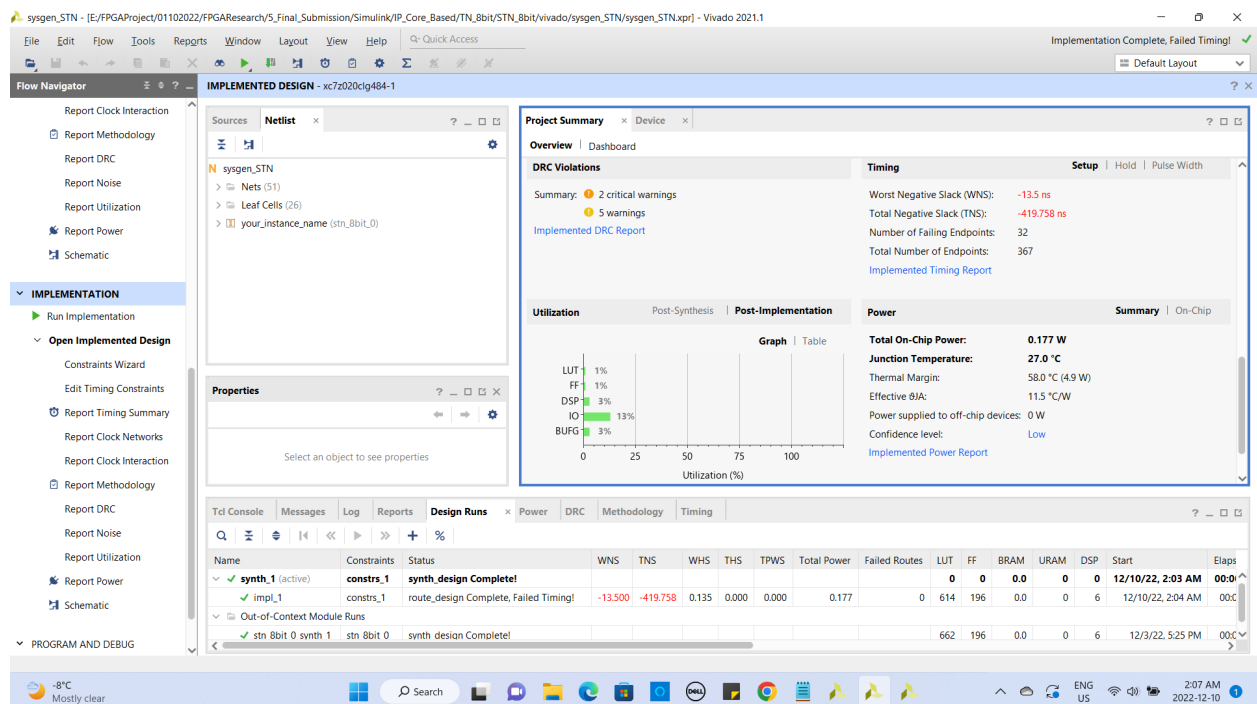
50Mhz



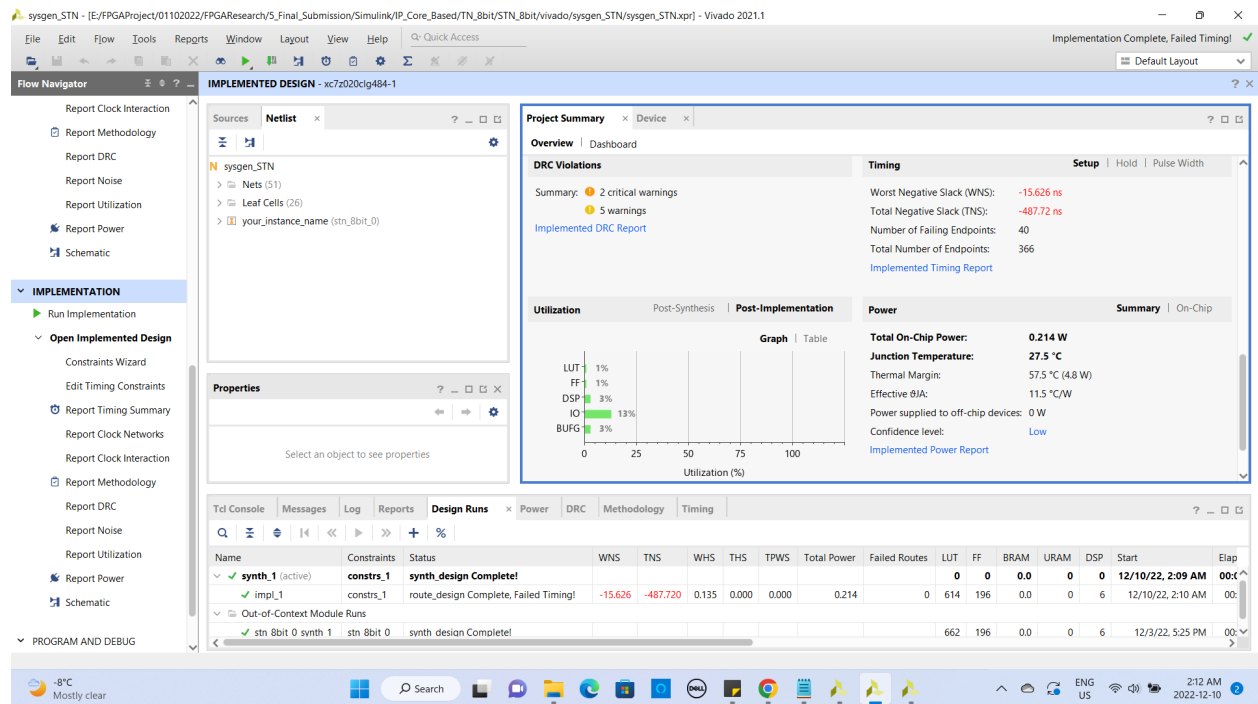
# 100MHz



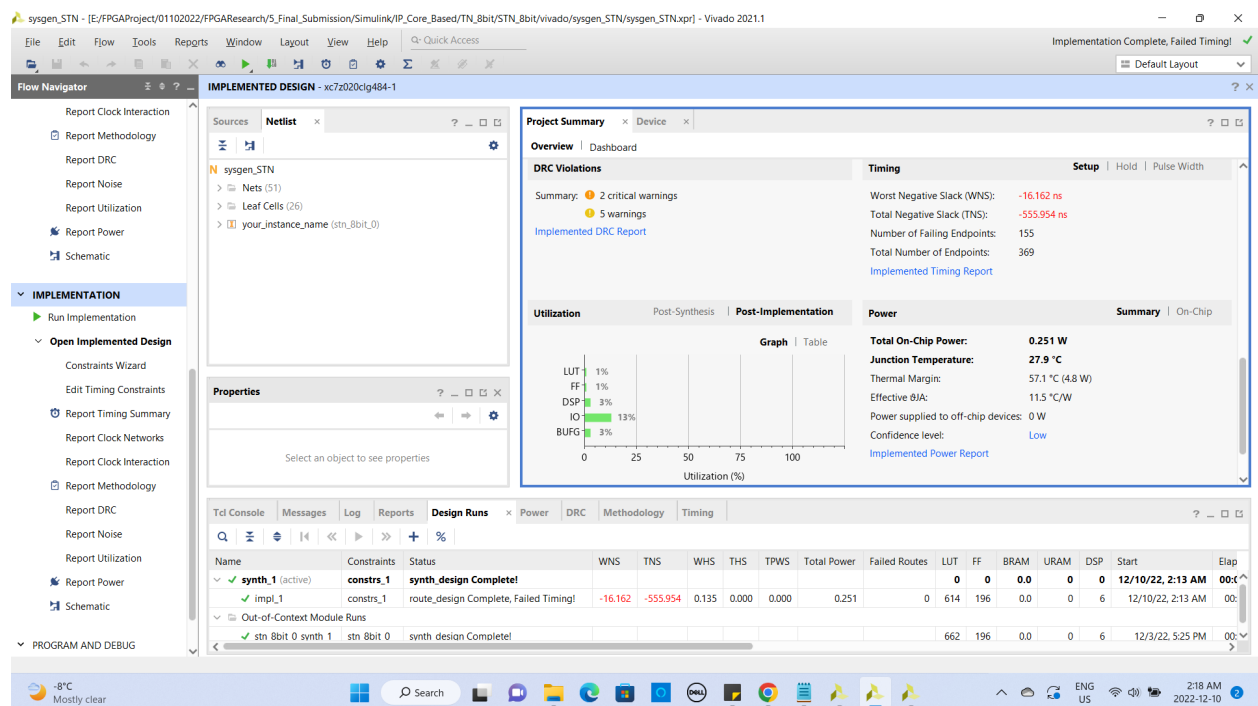
# 200Mhz



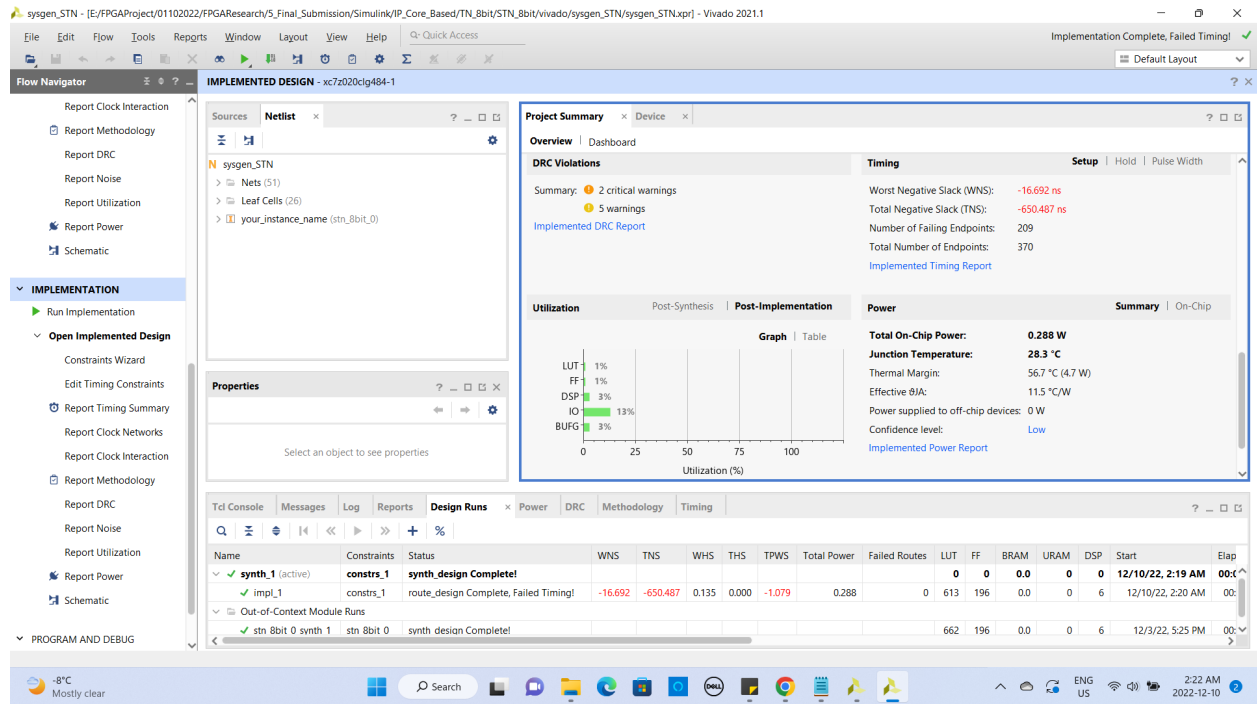
# 300Mhz



## 400Mhz

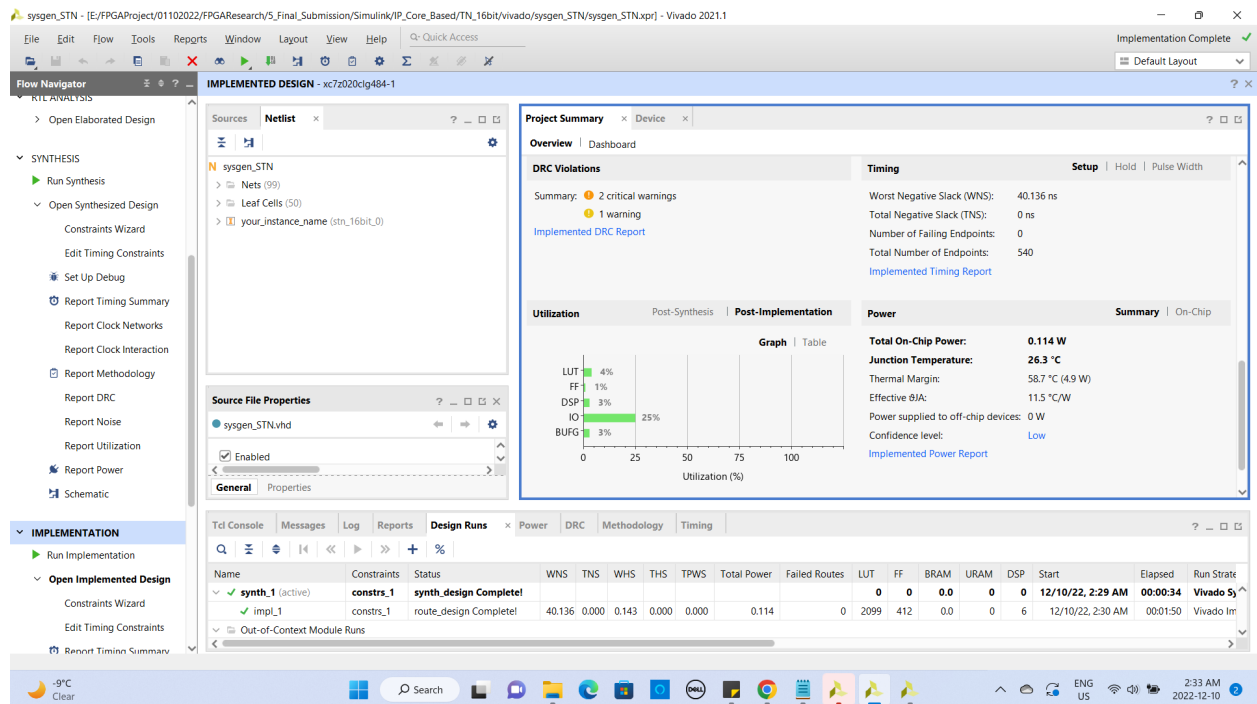


## 500MHZ

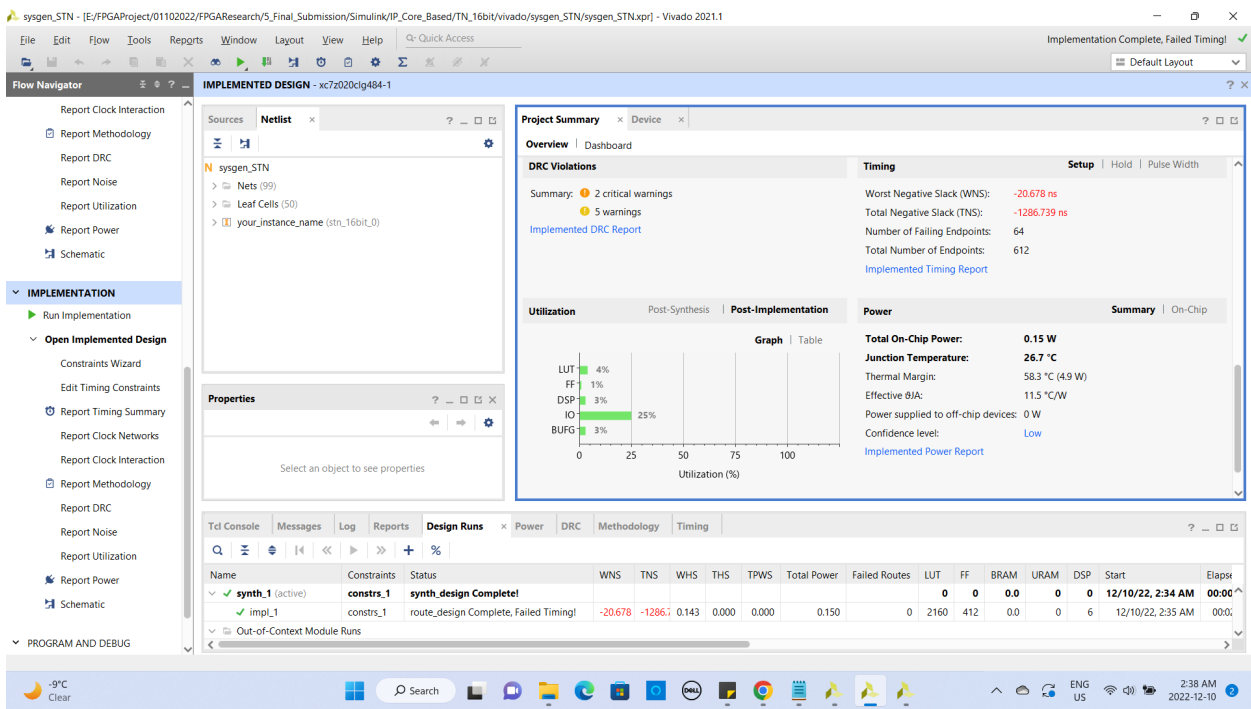


## 16-bit IP\_Core

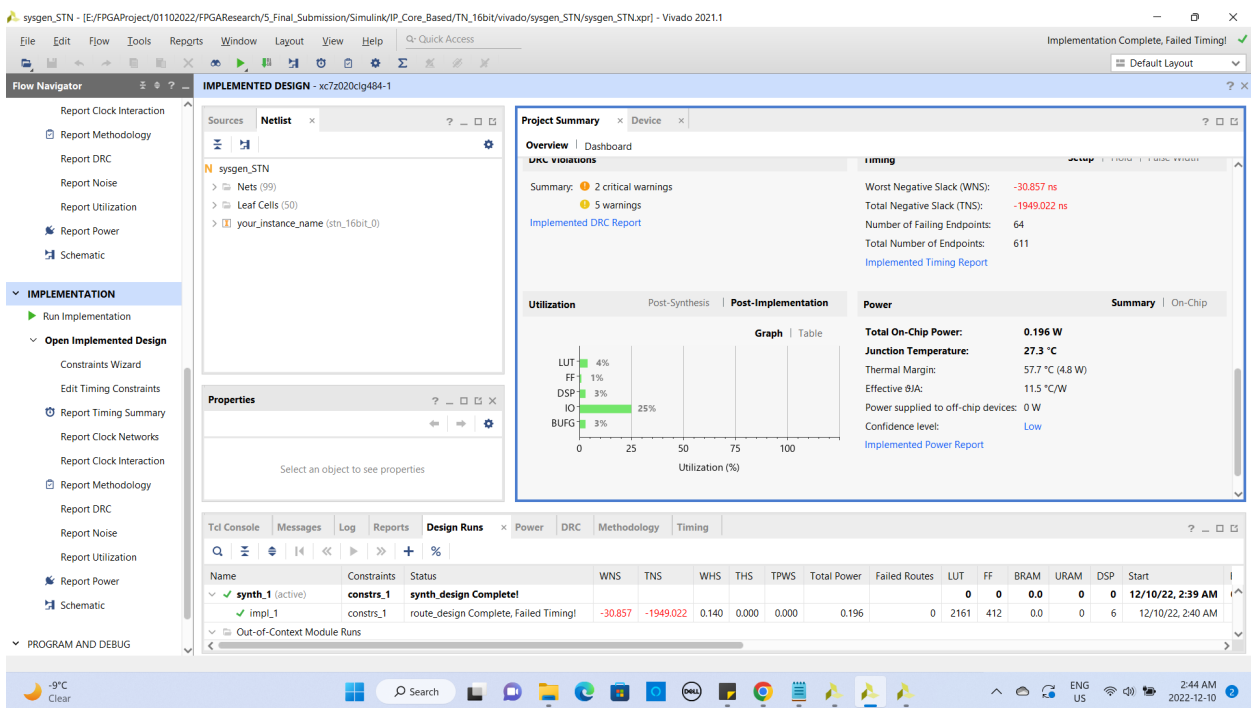
10MHz



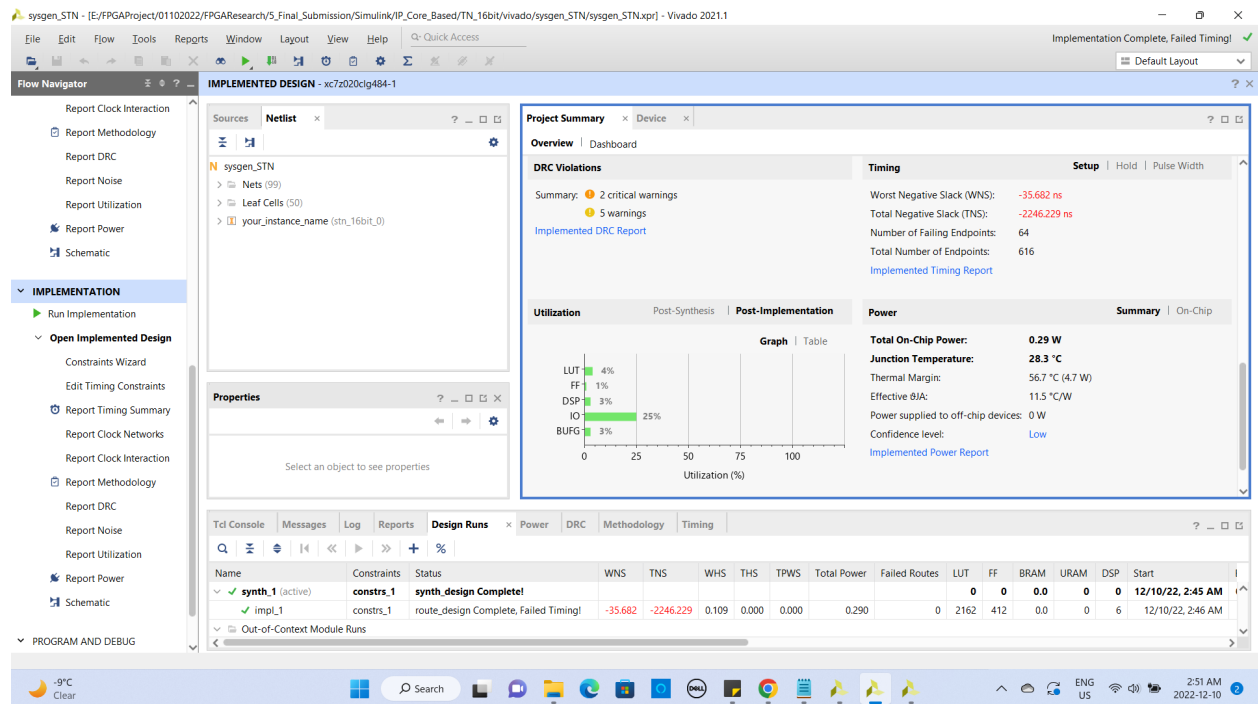
50MHz



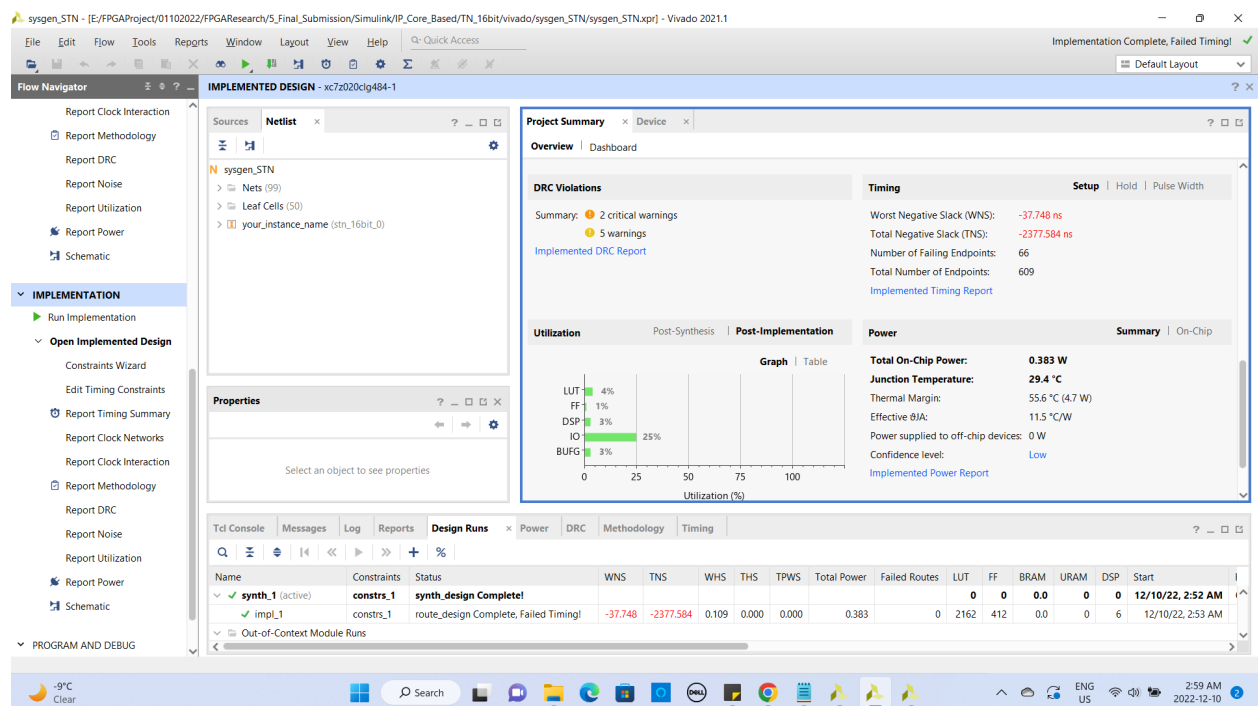
100MHz



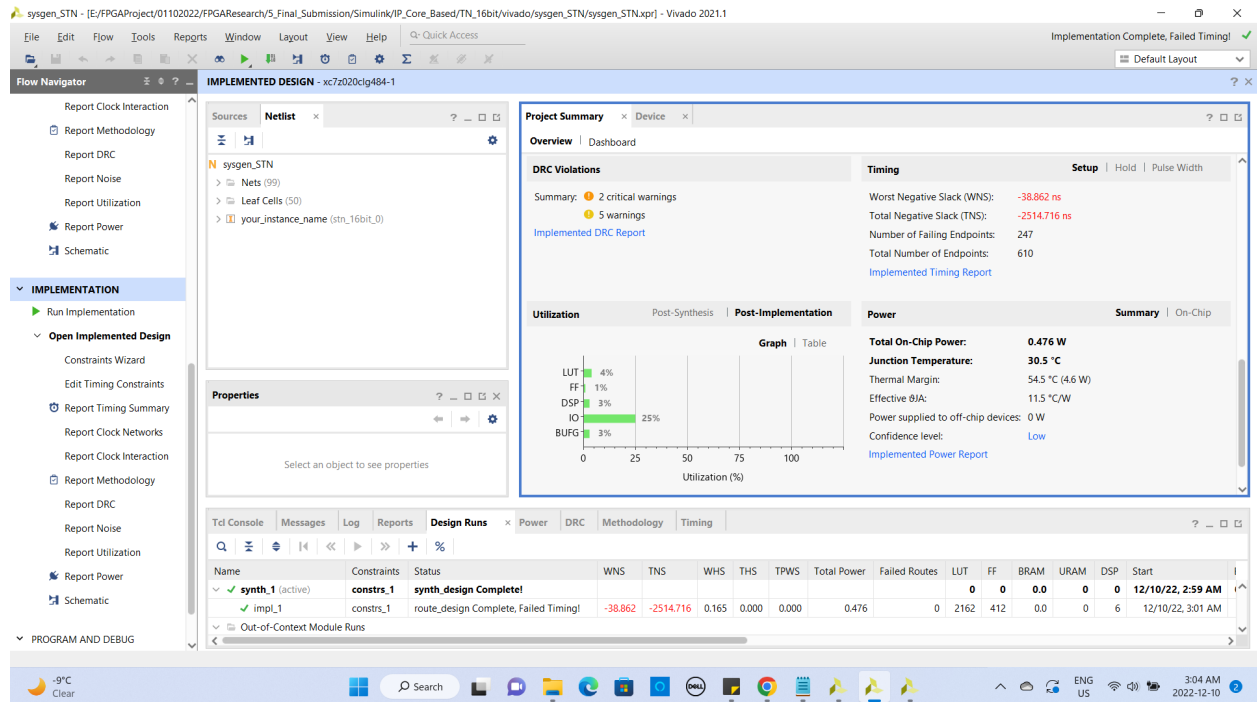
200MHz



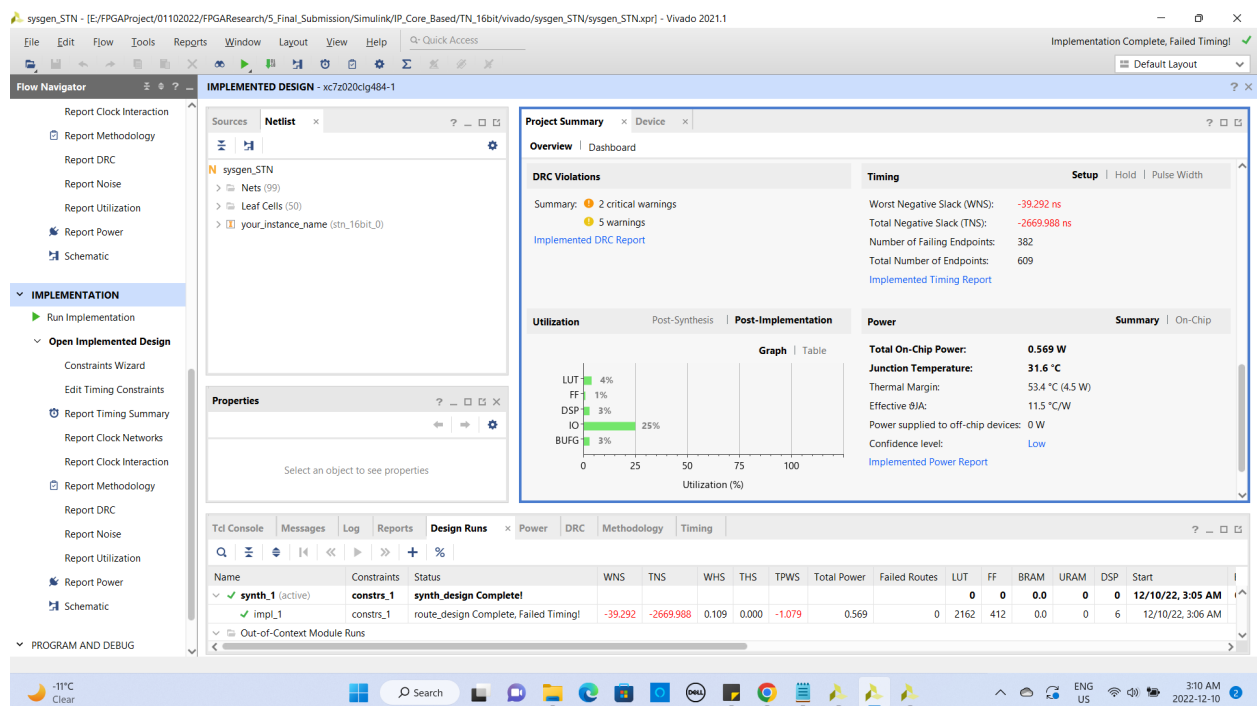
## 300MHz



## 400MHz

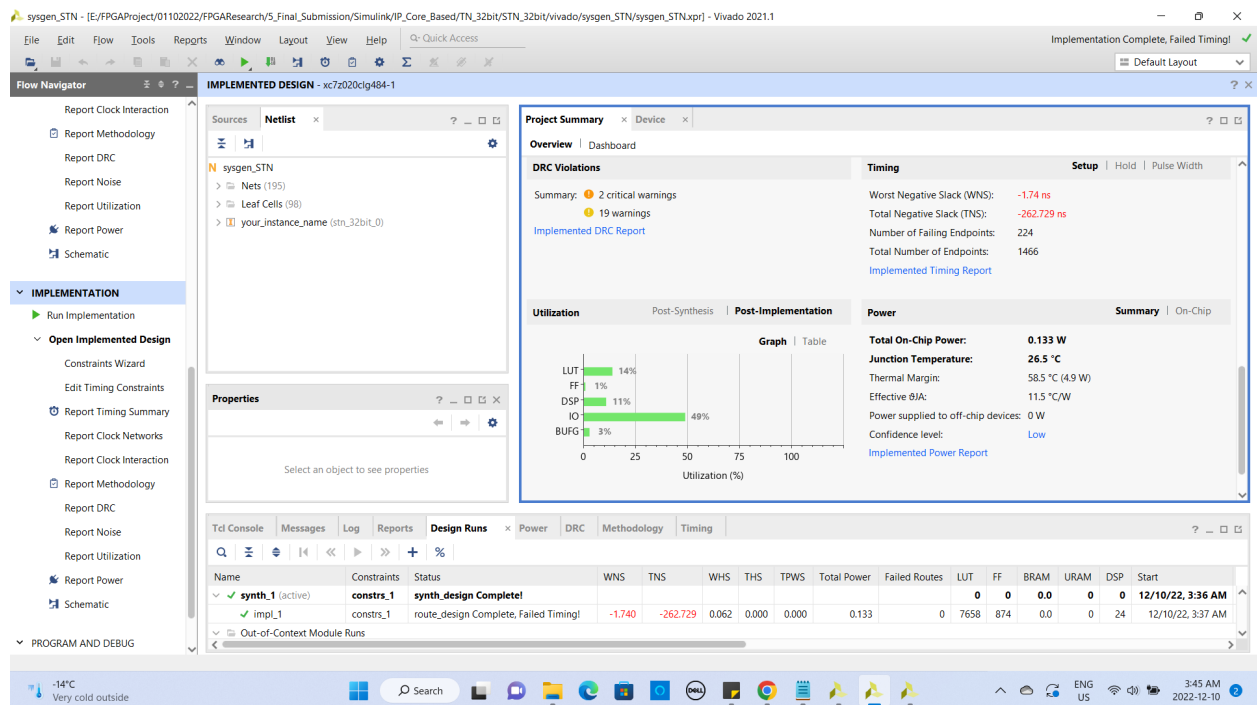


## 500MHz

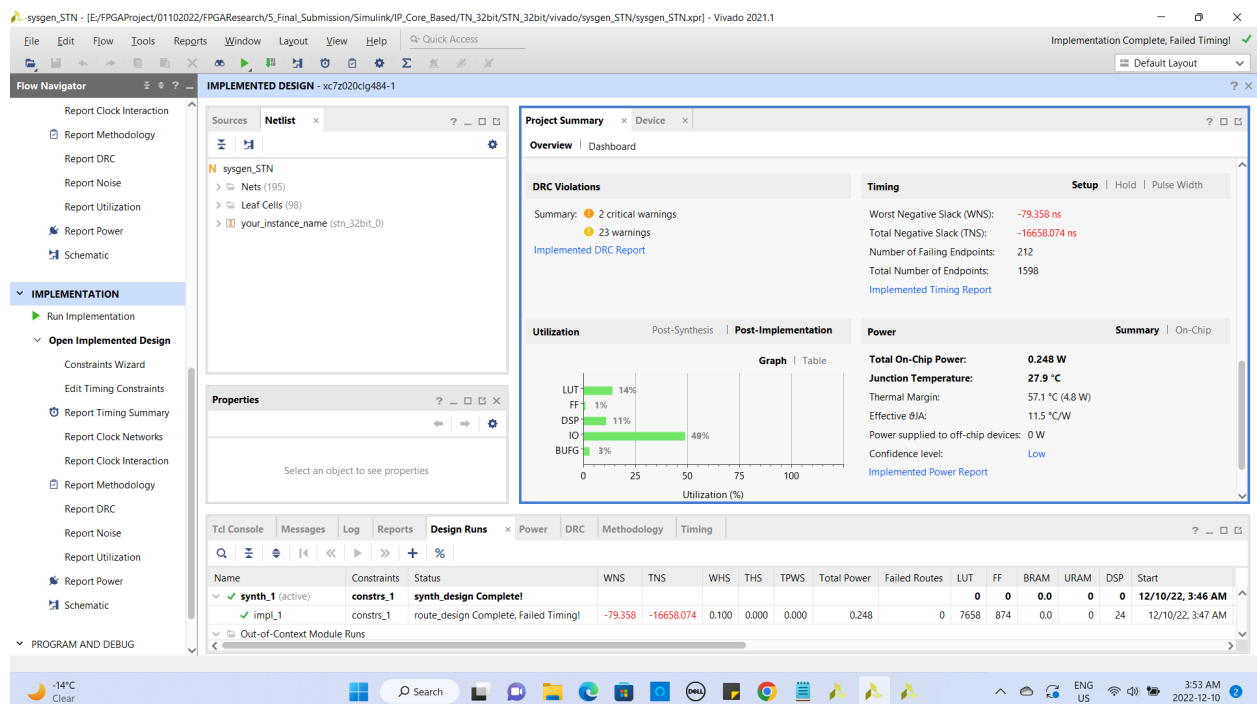


## 32-bit IP\_Core

## 10MHz

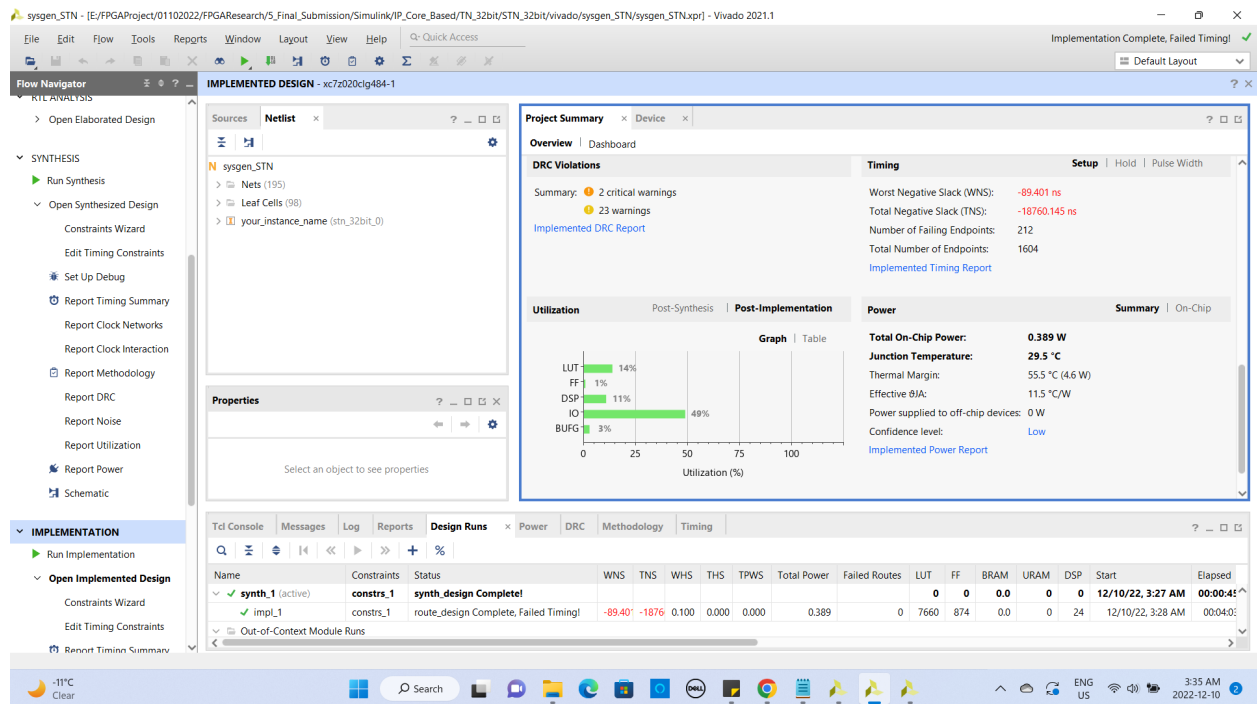


## 50MHz

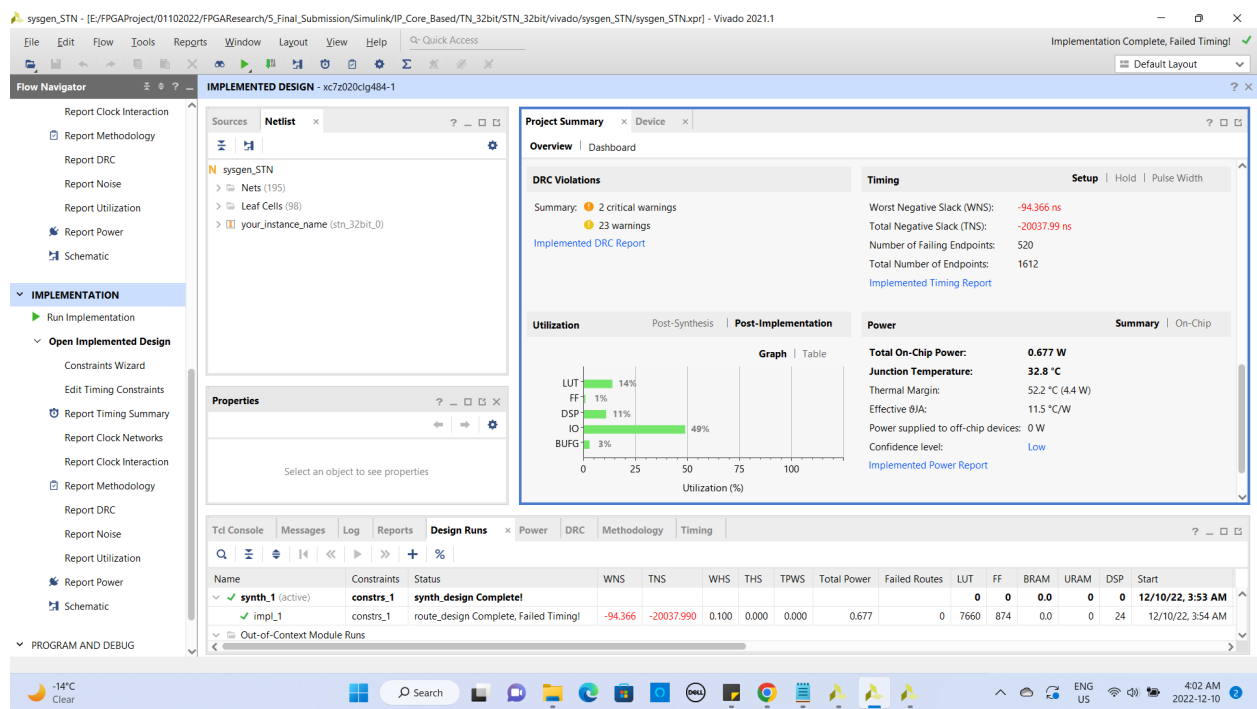


## 100MHz

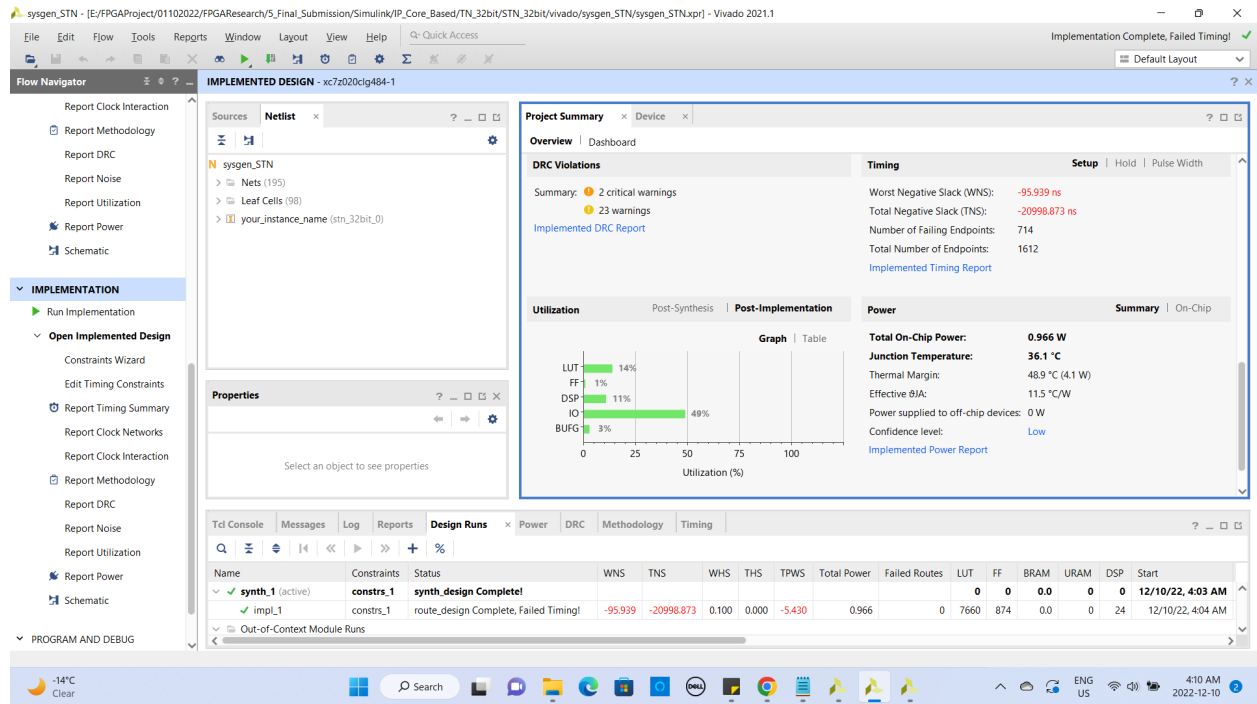




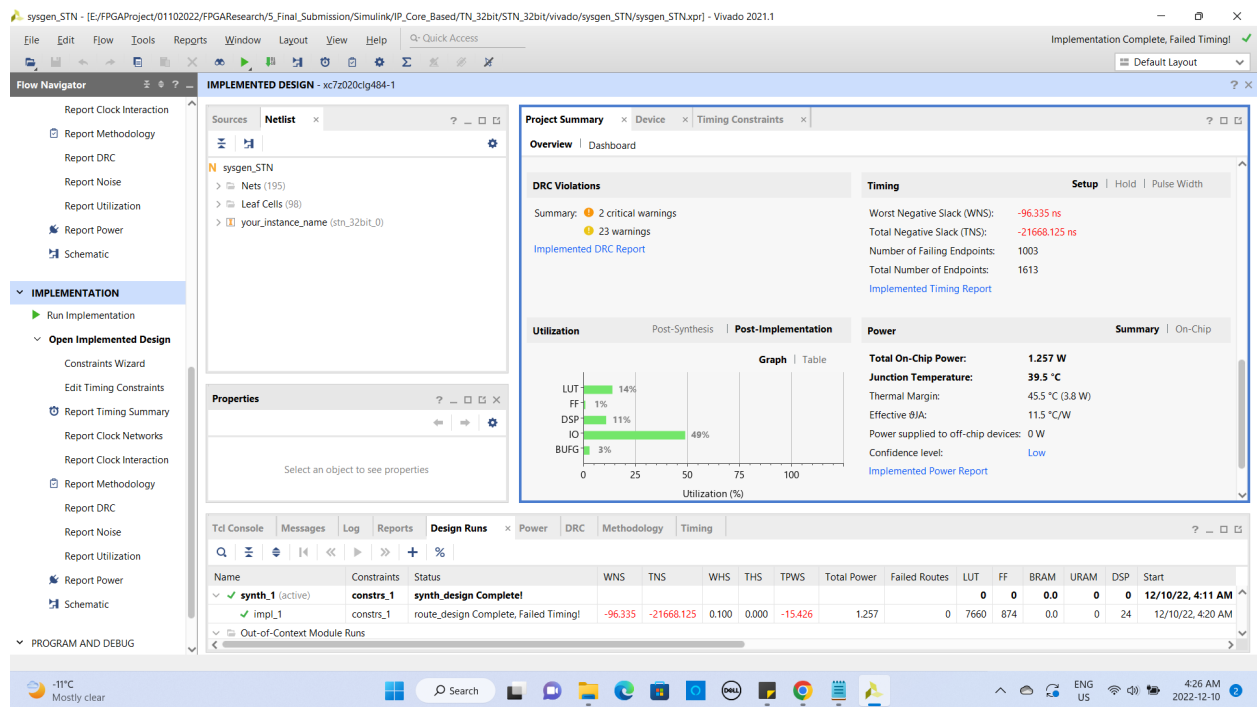
## 200Mhz



## 300MHZ



## 400Mhz



## 500Mhz

sysgen\_STN - [E:/FPGAProject/01102022/FPGAResearch/5\_Final\_Submission/Simulink/IP\_Core\_Based/TN\_32bit/STN\_32bit/vivado/sysgen\_STN/sysgen\_STN.xpr] - Vivado 2021.1

File Edit Flow Tools Reports Window Layout View Help Quick Access

Implementation Complete, Failed Timing!

Default Layout

### Flow Navigator

- Report Clock Interaction
- Report Methodology
- Report DRC
- Report Noise
- Report Utilization
- Report Power
- Schematic
- IMPLEMENTATION**
  - Run Implementation
  - Open Implemented Design
    - Constraints Wizard
    - Edit Timing Constraints
    - Report Timing Summary
    - Report Clock Networks
    - Report Clock Interaction
    - Report Methodology
    - Report DRC
    - Report Noise
    - Report Utilization
  - Report Power
  - Schematic
- PROGRAM AND DEBUG

### IMPLEMENTED DESIGN - xc7z020c1g484-1

Sources **Netlist**

- sysgen\_STN
  - Nets (195)
  - Leaf Cells (98)
  - your\_instance\_name (stn\_32bit\_0)

Properties

Select an object to see properties

### Project Summary

Overview | Dashboard

#### DRC Violations

Summary: 2 critical warnings, 23 warnings

[Implemented DRC Report](#)

#### Timing

Setup | Hold | Pulse Width

Worst Negative Slack (WNS): -96.754 ns  
Total Negative Slack (TNS): -22150.98 ns  
Number of Failing Endpoints: 1226  
Total Number of Endpoints: 1603

[Implemented Timing Report](#)

#### Utilization

Post-Synthesis | Post-Implementation

Graph | Table

Resource	Utilization (%)
LUT	14%
FF	1%
DSP	11%
IO	49%
BUFG	3%

#### Power

Summary | On-Chip

Total On-Chip Power: 1.542 W  
Junction Temperature: 42.8 °C  
Thermal Margin: 42.2 °C (3.5 W)  
Effective  $\theta_{JA}$ : 11.5 °C/W  
Power supplied to off-chip devices: 0 W  
Confidence level: Low

[Implemented Power Report](#)

### Tcl Console

Messages | Log | Reports | **Design Runs** | Power | DRC | Methodology | Timing

Q | | %

Name	Constraints	Status	WNS	TNS	WHS	THS	TPWS	Total Power	Failed Routes	LUT	FF	BRAM	URAM	DSP	Start
✓ synth_1 (active)	constrs_1	synth_design Complete													12/10/22, 4:26 AM
✓ impl_1	constrs_1	route_design Complete, Failed Timing!	-96.754	-22150.980	0.100	0.000	-23.121	1.542		0	7660	874	0.0	0	24 12/10/22, 4:27 AM
✓ Out-of-Context Module Runs															

PROGRAM AND DEBUG

-11°C Mostly clear

Search

ENG US 4:32 AM 2022-12-10