

# Define simulation parameters

## Configuration parameters

Reference frequency  
Divider modulus  
TDC resolution

DCO gain  
DCO nominal frequency  
DCO phase noise power

Initial frequency error  
Loop filter  
Simulation steps



# Initialize simulation

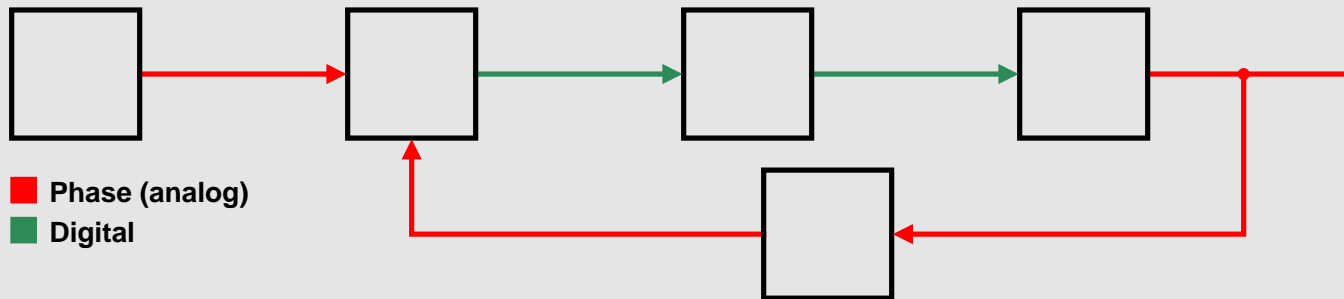
Instantiate model class objects

Initialize simulation data arrays



# Run simulation

for n in range(simulation\_steps):



# Post-processing

## Extract data and plot results

Phase noise spectrum  
Lock time

Transient responses