Agilent E5613A/AN
Agilent EEsof EDA
Phase Locked Loop DesignGuide

Product Overview

Features At A Glance

Complete PLL synthesis capability

Easy-to-use tab selection

Five types of PLLs

- Frequency synthesizer design
- Frequency/phase modulator design
- Frequency/phase demodulator design

Three simulation configurations

- Loop frequency response
- Phase noise response
- Transient response

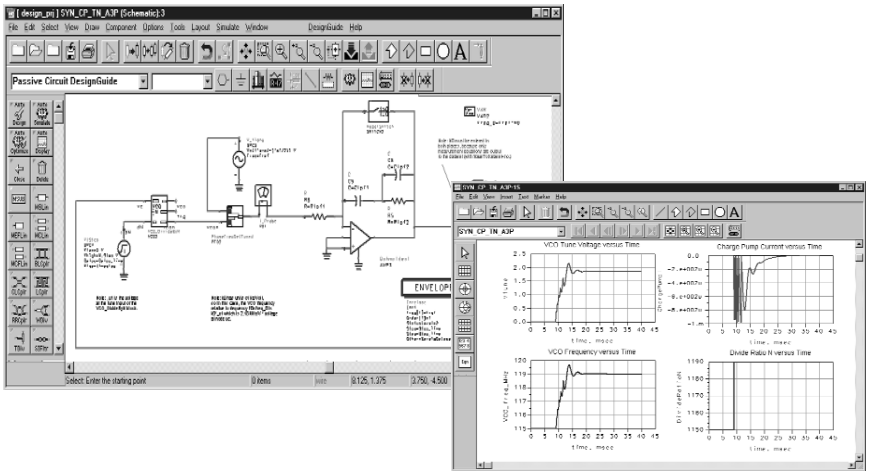
Four-phase detector configurations

- Phase/frequency
- Charge pump
- Mixer
- Exclusive OR

Seven-loop filter configurations

- Passive three- and four-pole
- Active two- and three-pole
- Active three- and four-pole pre-filtered
- Active two-pole (low-gain OP amp)

Phase locked loops are a vital part of many system designs. The Phase Locked Loop DesignGuide, one of a family of DesignGuides from the Agilent Technologies EEsof EDA, gives you the most complete tool kit available to interactively explore dynamic PLL systems at the top level as part of an integrated design process.



After you install it, the Phase Locked Loop DesignGuide becomes part of the Advanced Design System environment. This gives you the flexibility to explore custom loop filter topologies, including parasitic components, and add any other components you need to better model the PLL.

The Phase Locked Loop DesignGuide provides answers to critical design questions you might have, such as:

- What is the phase noise contribution of the various loop components?
- What is the transient loop response to a sudden change in divide-by-N ratio?
- What is the phase margin, and unity gain for my circuit?

Pre-configured simulations allow you to include the phase noise profile for the oscillator. Loop response measurements calculate closed loop and open loop response, and loop filter response.

System Requirements

- Advanced Design System 1.3 or later version installed
- E8900 Design Environment
- E8901 Data Display
- E8881 Linear Simulator
- E8882 Harmonic Balance Simulator
- E8883 Circuit Envelope Simulator

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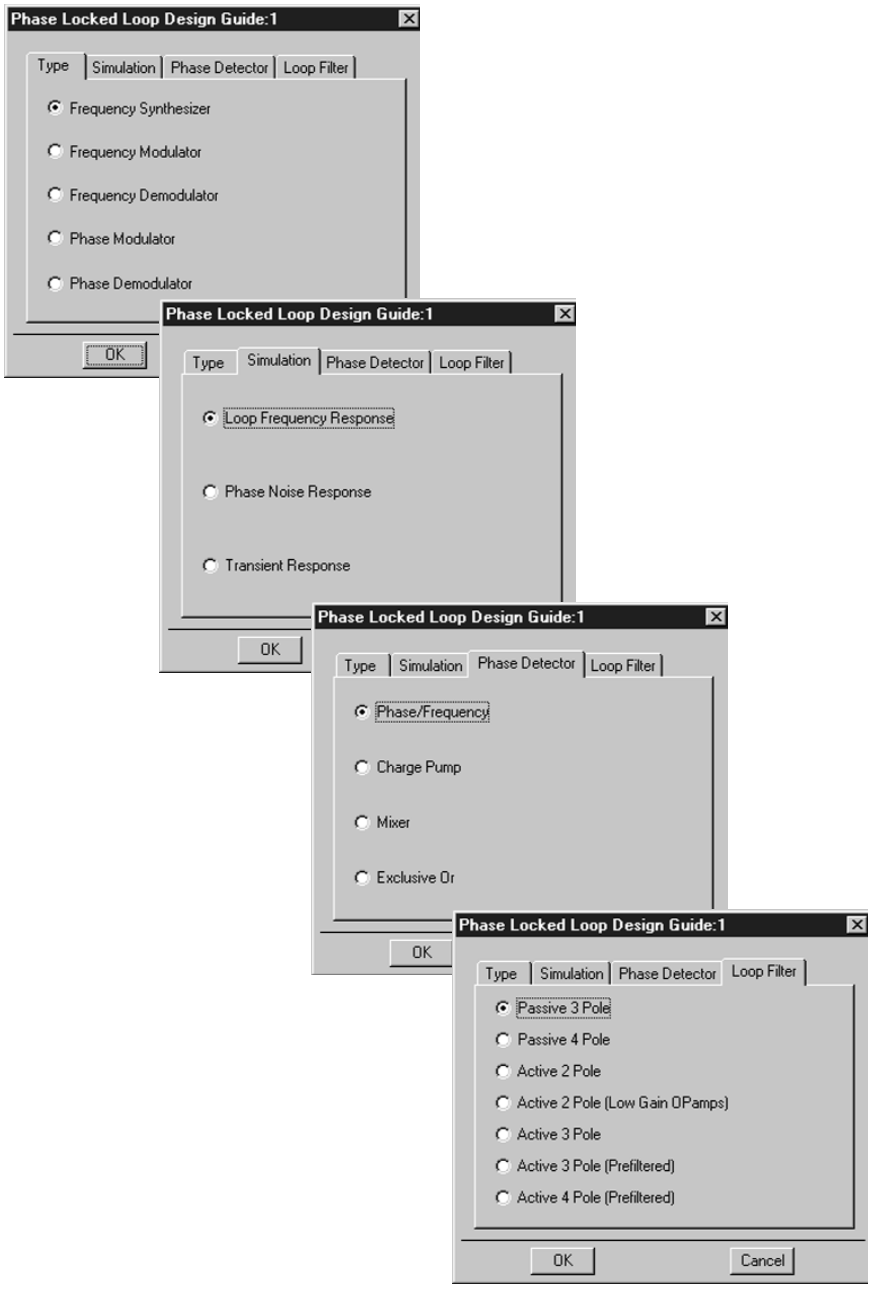

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