Application Note

STAN Tool

Rollet Factor versus Pole-Zero Identification

Understanding their differences for a more efficient use of both

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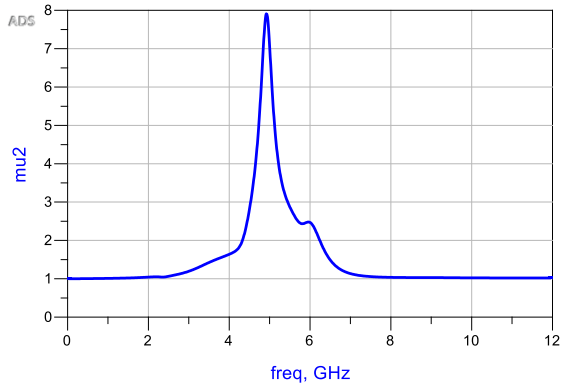
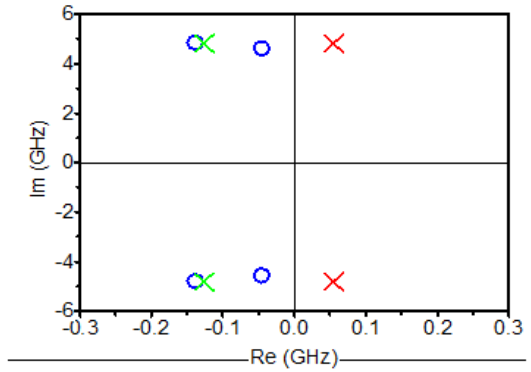
AMCAD Engineering
Advanced Modeling for Computer-Aided Design

Rollet Factor and Pole-Zero Identification

Rollet factor and **pole-zero identification** are analysis methods used by circuit designers to prevent undesired oscillations in their microwave amplifiers.





In some cases, there is a bit of confusion on why or when use a method or the other.

In this application note we will try to explain the main differences between the two methods so as to better understand their scope and limitations.

The goal is helping the designers to use them in the most effective way.

Document Outline

1 – Rollet criterion and Pole-Zero identification. Key differences

- 1.1 – Rollet criterion
- 1.2 – Rollet proviso
- 1.3 – Rollet criterion is not a stability test
- 1.4 – Pole-zero identification
- 1.5 – Stability of large-signals regimes

2 – Example of an incorrect application of the Rollet criterion

3 – How to use Rollet criterion appropriately

4 – Summary table

You want to learn more ?

If you want to get more details

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