

Modified S-Probe Circuit Element for Stability Analysis

Summary

The gamma probe (GPROBE2) is an insertable element that is placed on the input and output pins of active devices. When placed, it is invisible to the circuit so that the through signal path is not disturbed. It calculates the two reflection coefficients for the node into which they are inserted (Gamma 1 looks to the left and Gamma 2 looks to the right). The reflection coefficients themselves can be plotted, but the main thing to look at is the STAB_GP2 measurement. If this product is greater than 1 at any frequency or load / source pull point then the device is unstable. More information on the operation of these probes can be found in the Microwave Office Simulation and Analysis Guide >Appendix > Stability Analysis Methods. A paper on stability analysis, "Modified S-Probe Circuit Element For Stability Analysis", is available below under Downloads.

Downloads

[S_Probe_White_Paper.pdf](#)