

V634LPx/V634FLPx Layout Guide

1. V634LPx/V634FLPx layout structure:

Pink area: V634LPx/V634FLPx Package Area

Blue area: RF Circuit Area

Green area: Digital and Analog Circuit Area

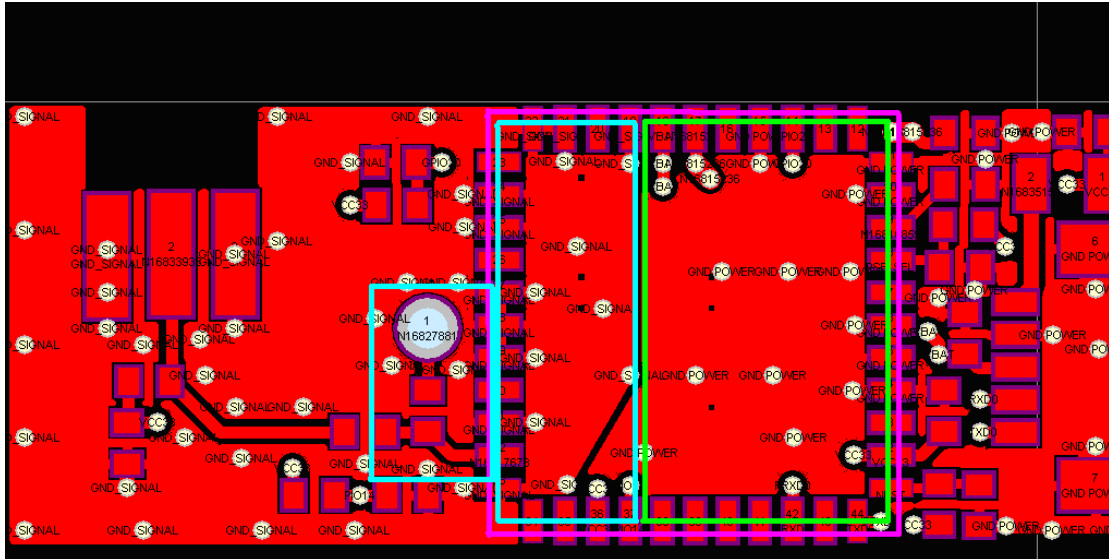


Figure1. V634LPx/V634FLPx Layout Structure - top view of top-layer of the layout

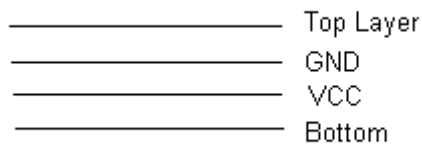
2. Layout Recommendation

Layout Guideline:

1. RF circuit area: This area for every layer should not have placement of any other traces except RF related traces.
2. Digital and analog circuit area: This area may have placement of some traces but not including the trace of Clock, Power, and CPU Bus.

Example-4 Layers PCB:

Material: FR-4($\epsilon_r= 4.4\sim 4.6$)



Top Layer:

1. Make RF input trace as short as possible and the impedance close to 50Ω .
2. Separate RF_GND with Digital_GND and no need to connect the two together since it is already connected inside the chip.

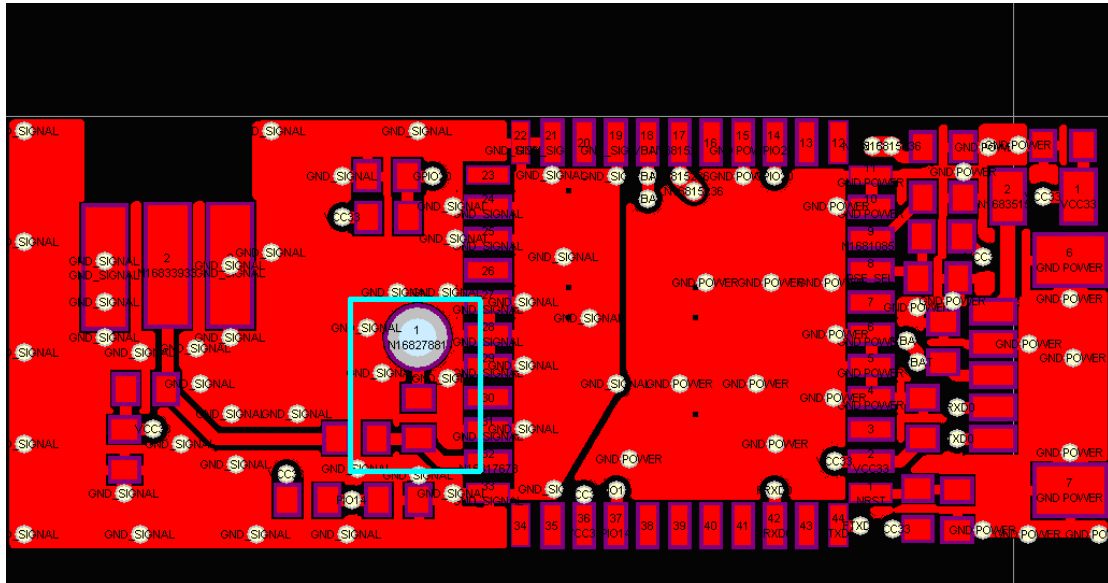


Figure 2. Top Layer

GND Layer:

It is best to have GND Plane as a complete plane (especially for RF_GND)

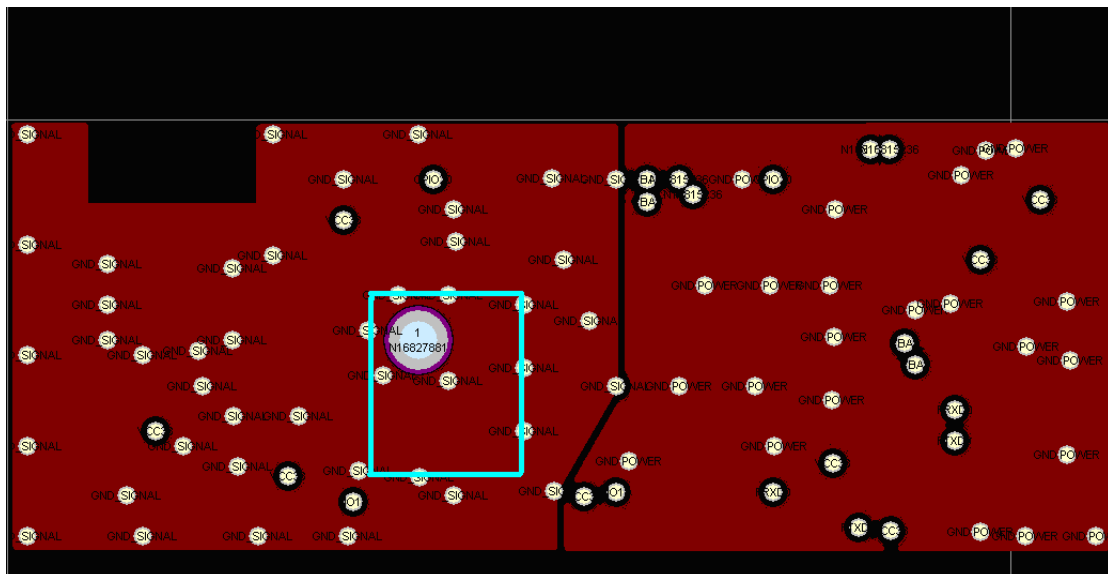


Figure 3. GND Layer

3. Summary

1. RF circuit area is quite sensitive, please do not route any trace within this area no matter what layer it is.
2. Keep GND plane as complete as possible, at least for GND_RF.
3. The layout Guideline is also suitable for 2-layer PCB.