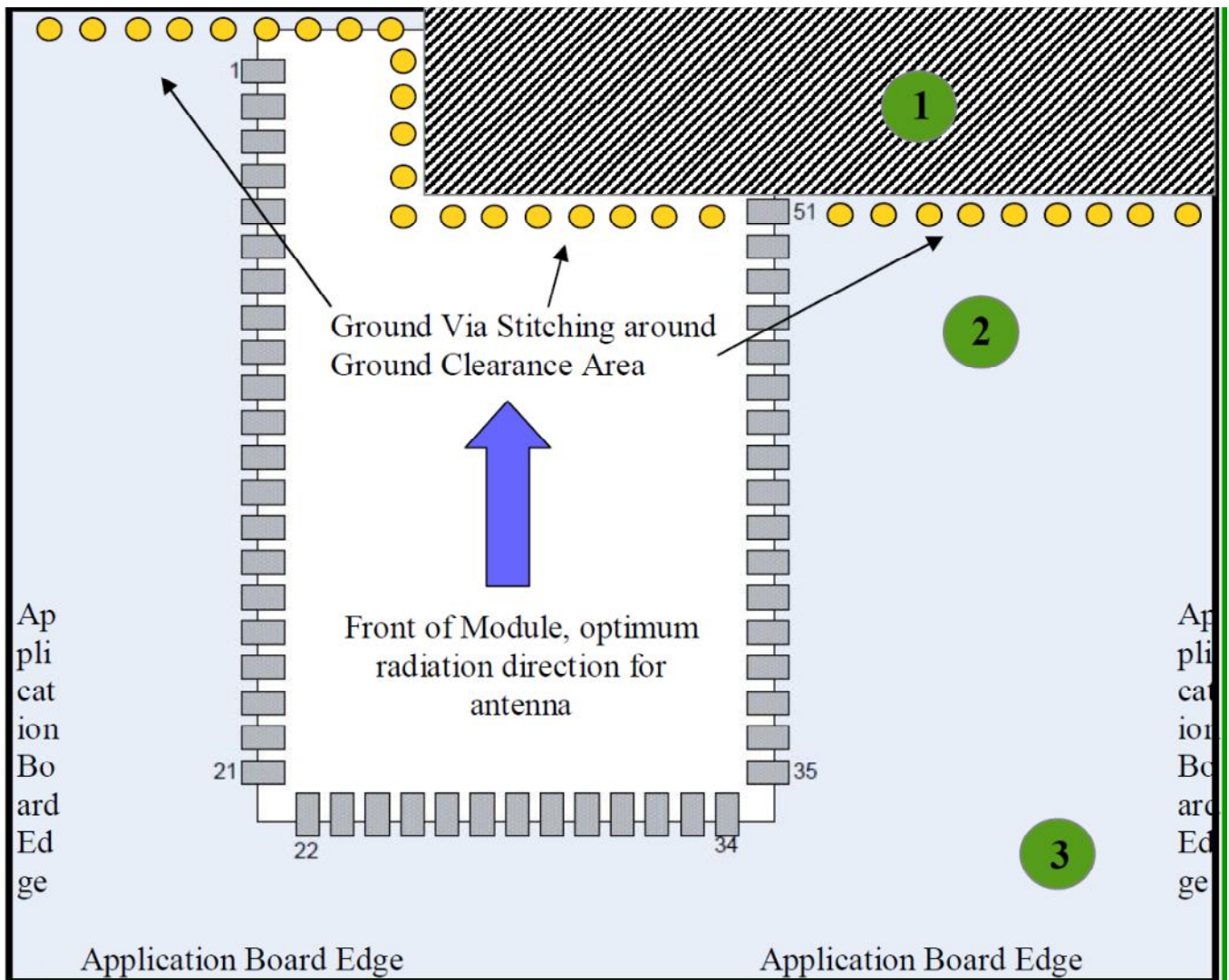




# BC127 Antenna Layout Guidelines

The BC127 requires specific layout conditions to achieve the maximum range from the on board Antenna. The module is designed to be placed in the top right hand corner or edge of an application board, ideally butted up to the edge of the board to allow for maximum free space radiation from the antenna. Orientate the front of the module to face the direction that you want the maximum range for your product.





## BC127 Antenna Layout Guidelines

1. The ground clearance area is dimensioned in the BC127 data sheet, all copper on all layers should be removed from this area up to the application board edges on the top and right hand side of the board. Not metallic components can be placed in this area. If your application is to be housed in a case only use plastic or rubber materials and avoid any metallic coatings in this area. Avoid routing any signal or power tracks in this area.
2. Ground fill should be used where ever possible on the application board, tie all ground fill areas on multiple layers together with through ground via stitching.
3. The performance of the antenna depends on ground fill area and board size, small boards with smaller ground areas may not perform as well as larger boards with large ground areas.
4. The BC127 Module has been tuned for optimal performance for the Discovery Board you may not achieve the same range with smaller board sizes.