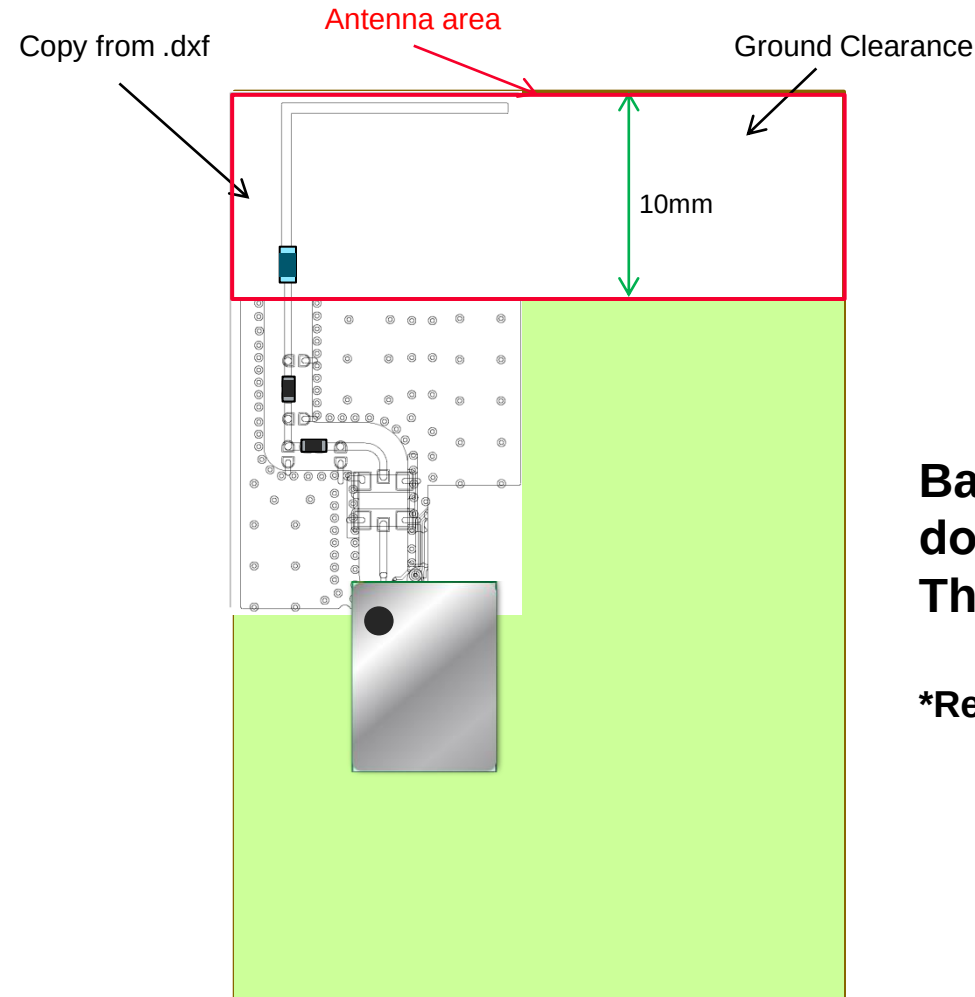


Type1YN Design guide

Oct, 2021



1. Layout Guide of Antenna area

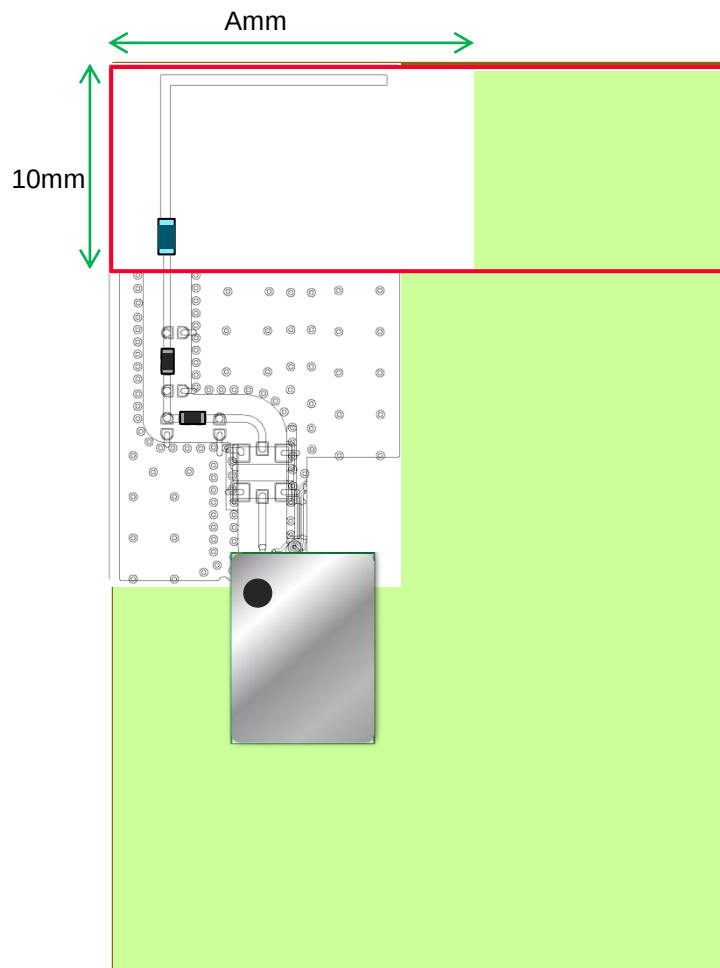


- Place the antenna on top-left corner.
- Keep GND clearance all long the top edge.

**Basically please propose Antenna area doesn't have GND plane .
This is 1st priority.**

***Refer to Type1DX_Antenna Performance_20160419**

2. Layout Guide of Antenna area



If PCB has to arrange GND plane in antenna right area

- Recommend size A : >20mm
- Simulation results

Gain and Efficiency

LINEAR POLARIZATION		[dBi]						[dB]
		XY-plane		YZ-plane		ZX-plane		Total Efficiency
		hor.	ver.	hor.	ver.	hor.	ver.	
2400 MHz	MAX.	-10.8	-4.0	0.9	-14.2	-0.2	-5.3	-3.7
	AVE.	-14.3	-8.9	-4.1	-15.4	-5.4	-9.6	
2442 MHz	MAX.	-10.3	-3.9	1.2	-13.4	0.1	-4.8	-3.5
	AVE.	-13.5	-8.7	-3.9	-15.1	-5.3	-9.2	
2484 MHz	MAX.	-9.3	-3.7	1.4	-13.6	0.3	-4.1	-3.3
	AVE.	-12.8	-8.5	-3.8	-14.7	-5.2	-8.7	

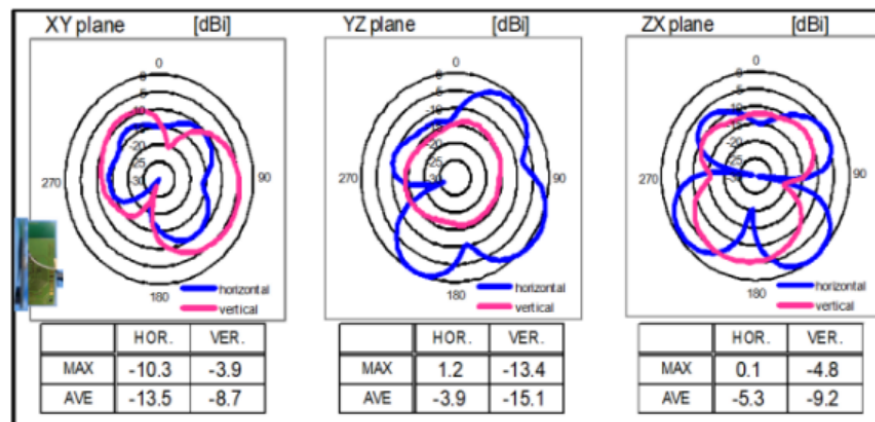
Under 20mm : worse than efficiency of 20mm

Over 20mm : Same efficiency

- *Need to change matching circuit for each condition
- *Detail simulation results : RERC16170-SE.xlsx

2.1 Layout Guide of Antenna area

Directivity



Return Loss

