
AGR-300

Antenna Simulation Report V1.0

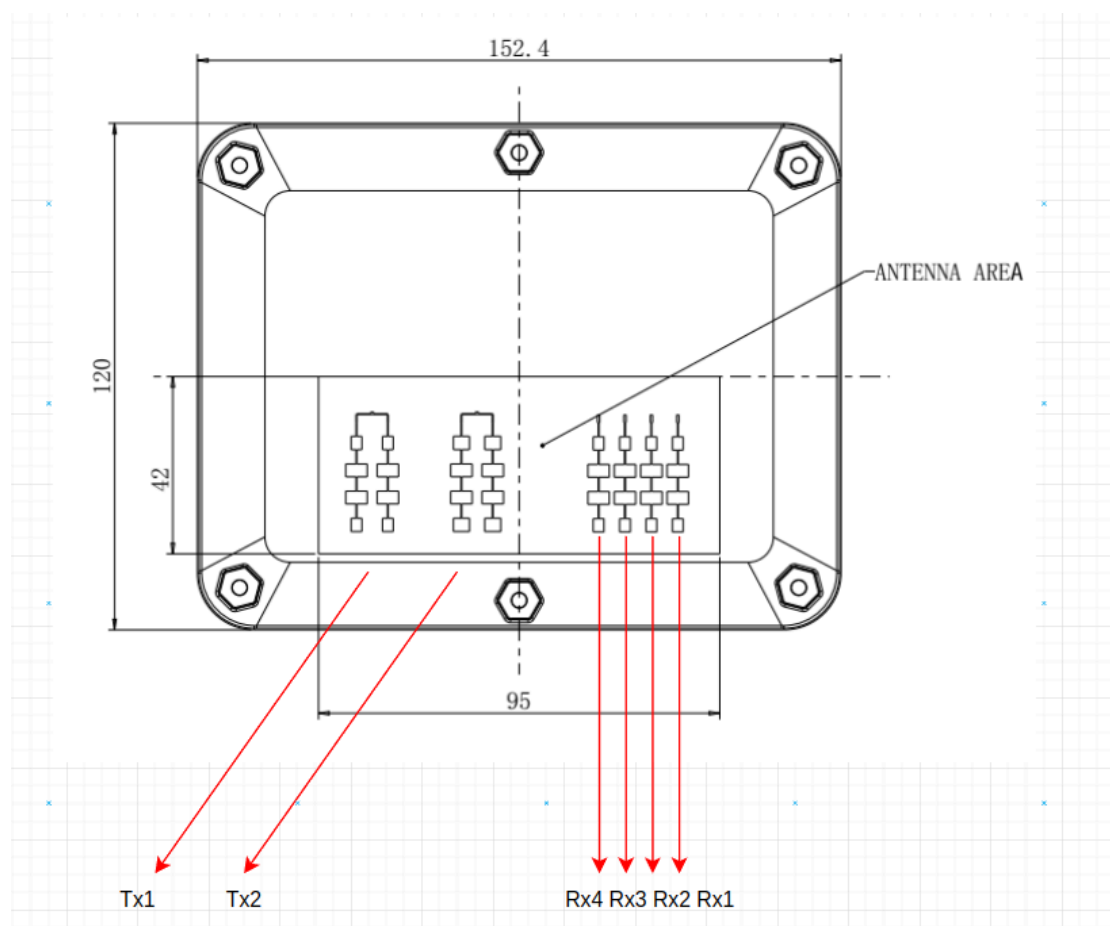
1. Antenna Description

AGR-300 Tx (Transmitter) antenna is a 2 x 4 patch (two channels) antenna with a gain of about 13.7 dBi. Rx (Receiver) antenna is a 4 x 2 patch (4 channels) antenna with a gain of about 10.6 dBi.

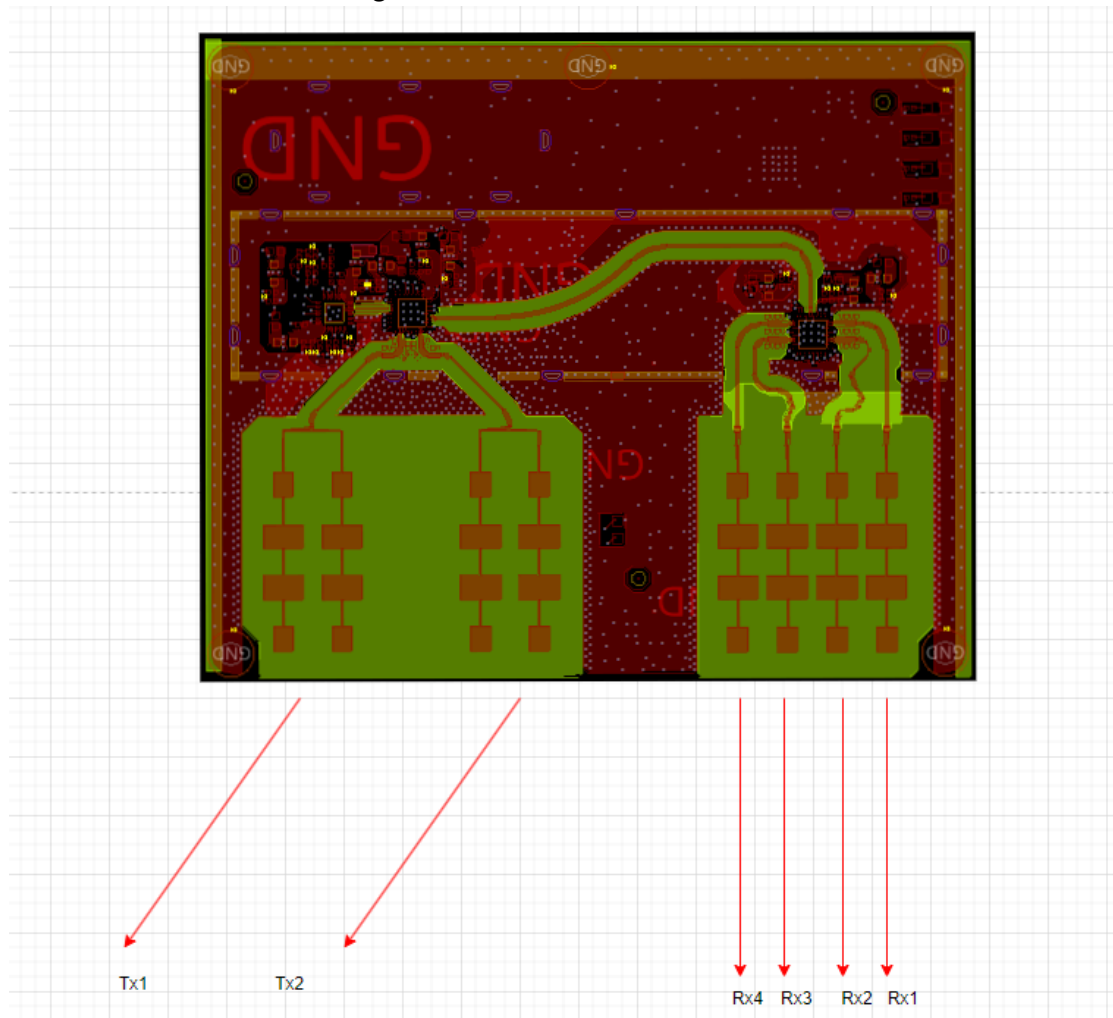
In the AGR-300 application, we only enable ONE Tx channel antenna (Tx 1) and ALL Four Rx channels, and Tx 2 is always disabled.

2. Antenna Layout and Dimensions

Antenna area view in Mechanical dimension:

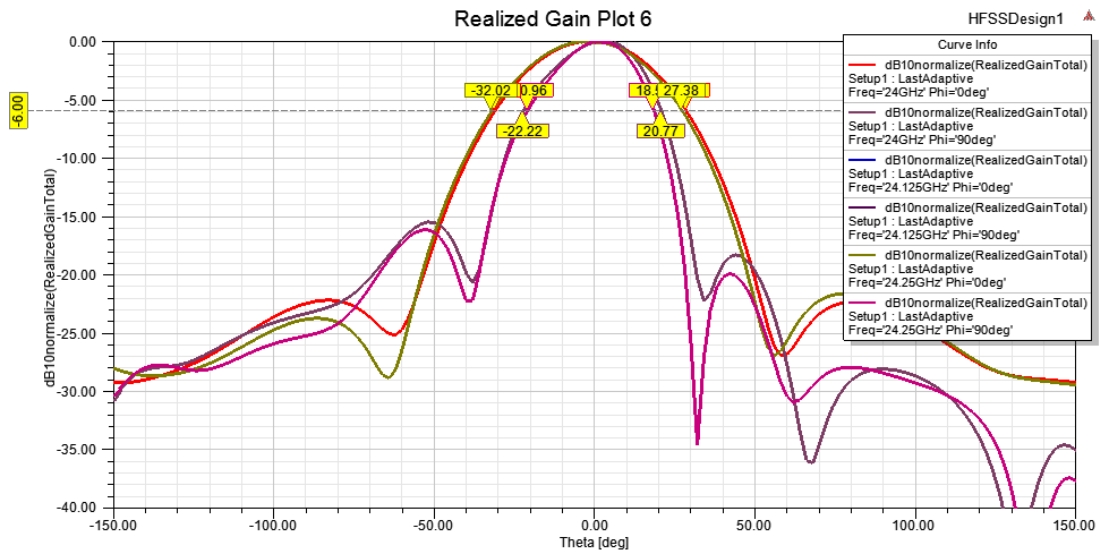


Antenna area view in PCB design:



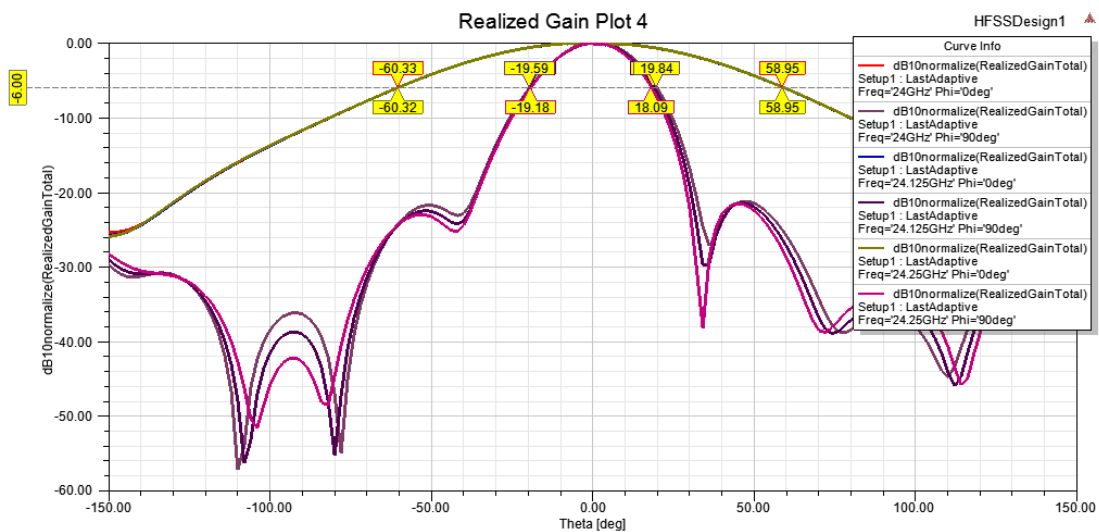
3. Antenna Simulation Result

Tx antenna Simulation Result:



Realized gain (dBi)	13.7116
3db beam width: (azimuth,elevation) (deg)	43*(27~30)
6 db beam width: (azimuth,elevation) (deg)	60*(40~42)

Rx antenna Simulation Result:



Realized gain (dBi)	10.5985
3db beam width: (azimuth,elevation) (deg)	82*(26.5~28)
6 db beam width: (azimuth,elevation) (deg)	120*(37~41)