

K-77-G2 Long Range Radar Antenna Simulation Report

TABLE OF CONTENTS

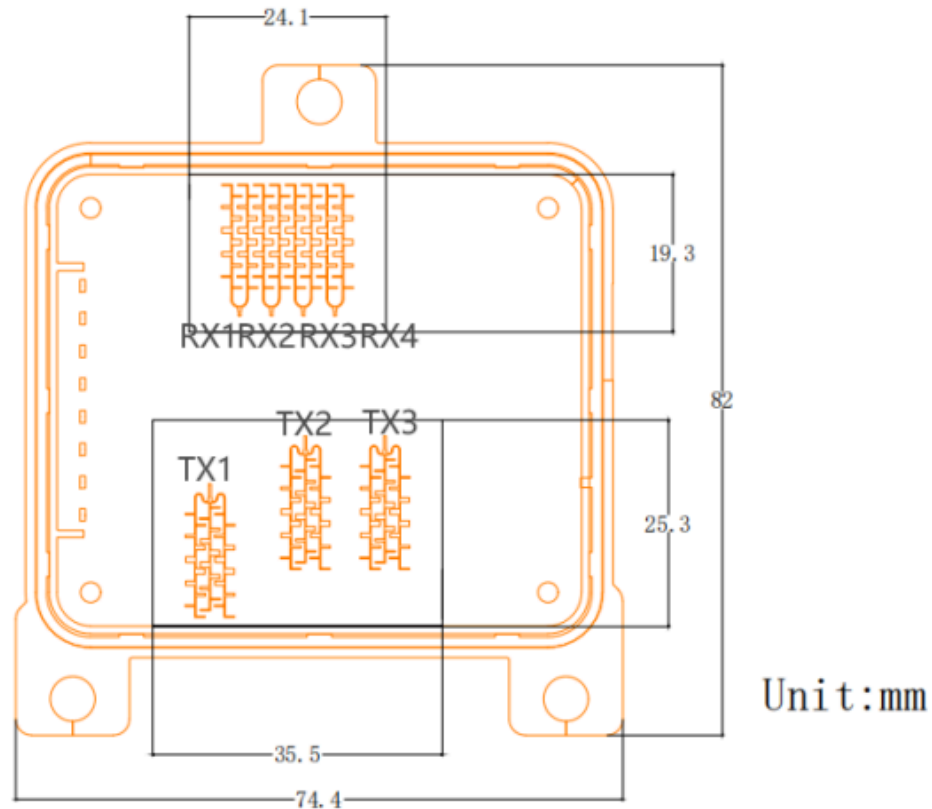
1. Antenna Description	3
2. Antenna Layout and Dimensions	3
3. Antenna Simulation Report	3

1. Antenna Description

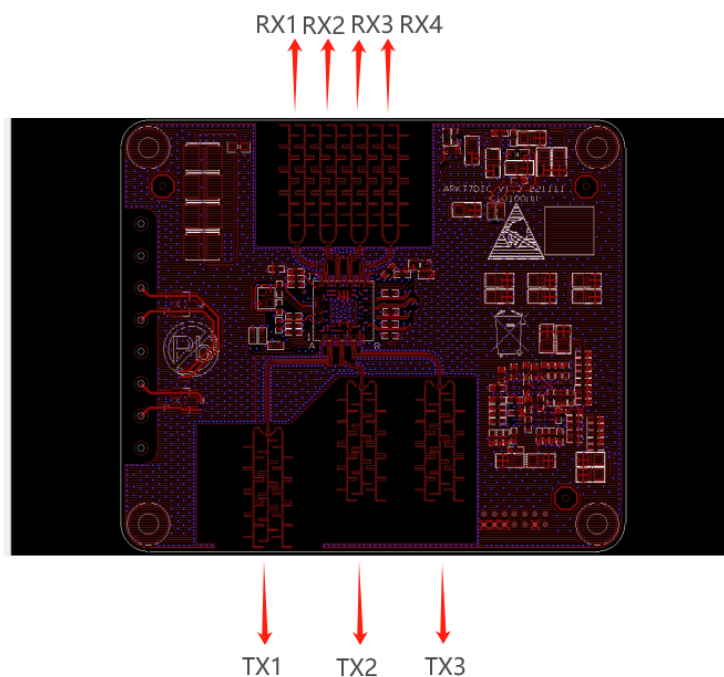
K-77-G2 Tx (Transmitter) antenna is a 3×10 comb array (three channels) antenna with a gain of 16 dBi. The Rx (Receiver) antenna is a 2×10 comb array (four channels) antenna with a gain of 15 dBi. In the K-77-G2 application, we enable ALL three Tx channels and ALL Four Rx channels.

2. Antenna Layout and Dimensions

Antenna area view in Mechanical dimensions:

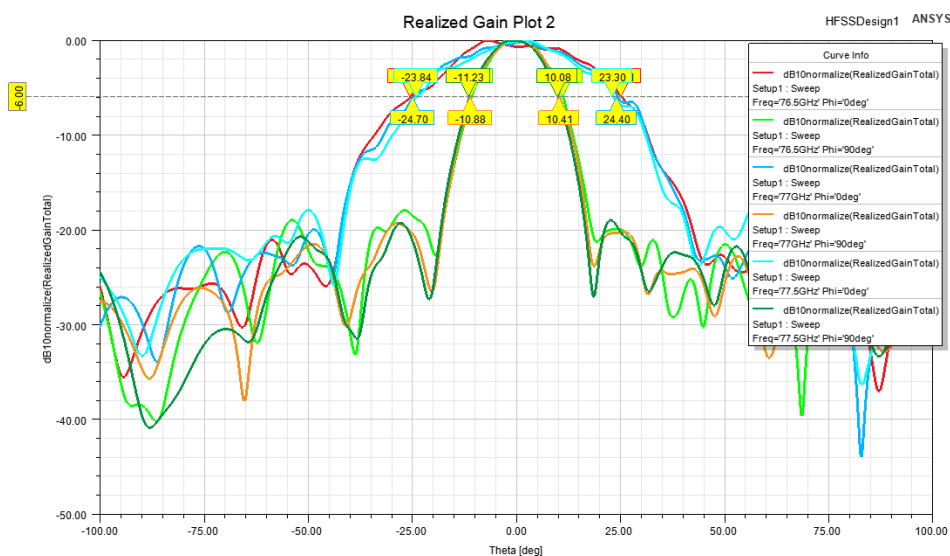


Antenna area view in PCB design:



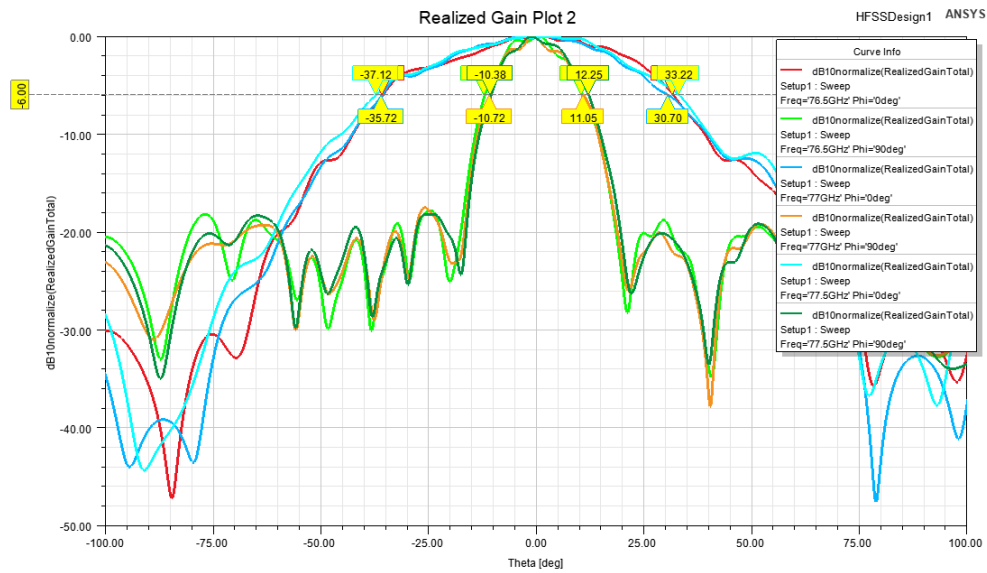
3. Antenna Simulation Report

Tx Antenna Simulation Result:



Realized Gain (dBi)	16
3dB Beamwidth: (Azimuth,Elevation)(deg)	33*(15)
6dB Beamwidth: (Azimuth,Elevation)(deg)	47*(22)

Rx Antenna Simulation Result:



Realized Gain (dBi)	15
3dB Beamwidth: (Azimuth,Elevation)(deg)	43*(16)
6dB Beamwidth: (Azimuth,Elevation)(deg)	66*(22)