

K60168-M Passive Antenna Report

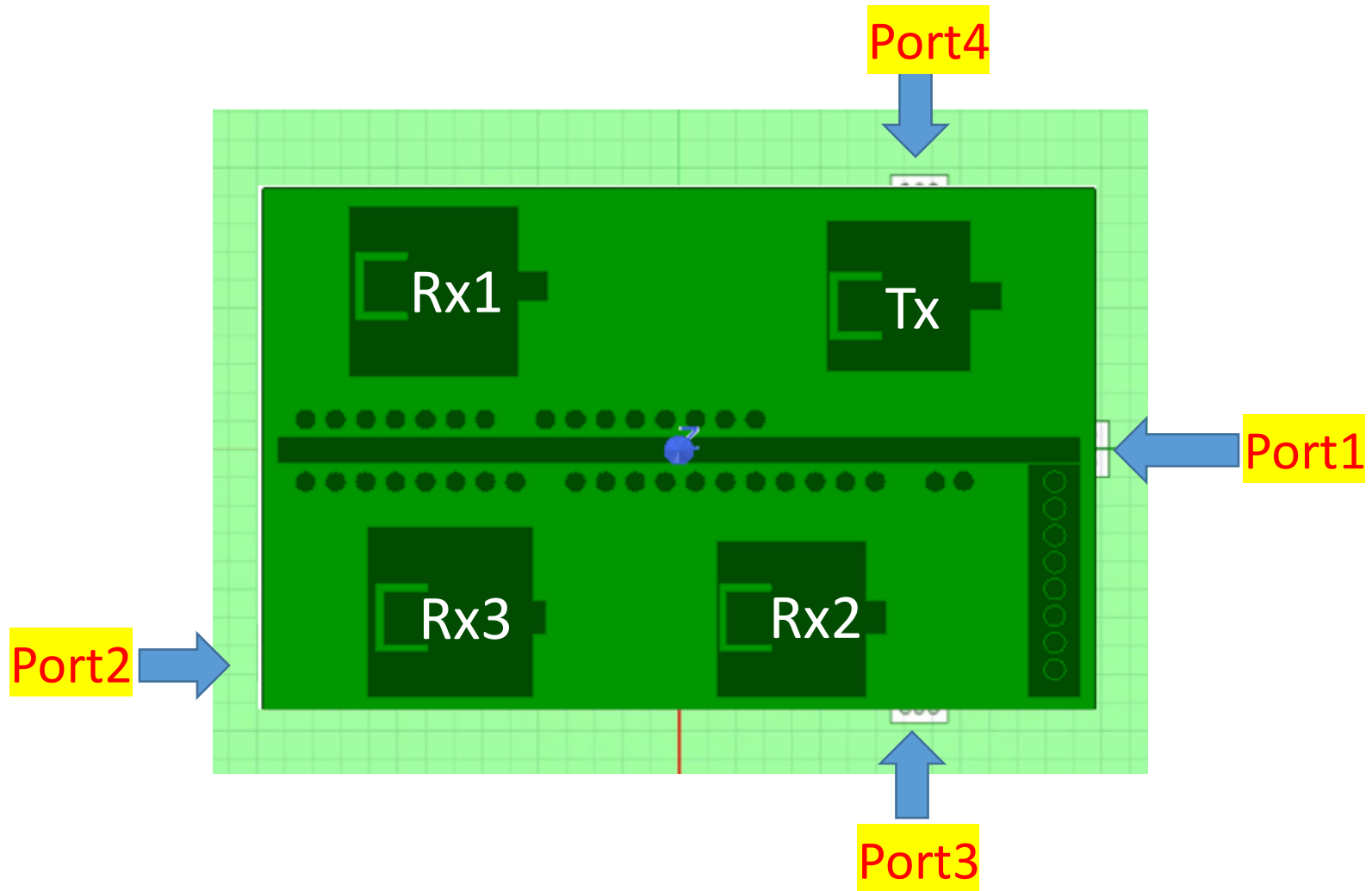
0412

Outline

- Measurement of K60168-M
 - Antenna Structure
 - Radiation pattern
 - Peak Gain Analysis
 - Conclusion



Antenna Structure



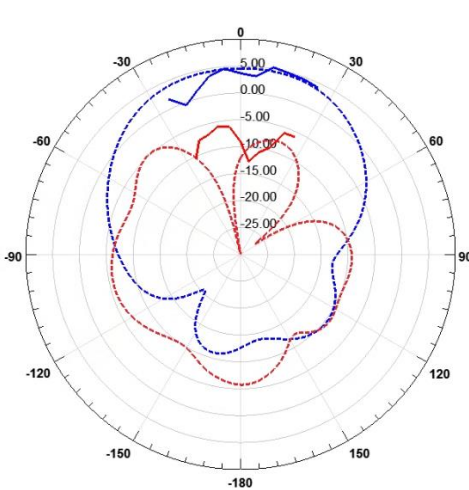
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Radiation Pattern Tx Realized Gain

XZ(H)

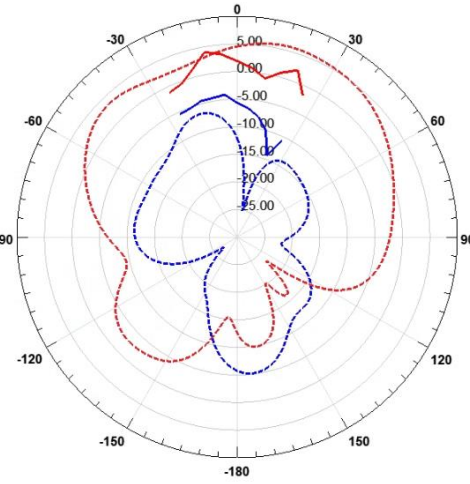


Zenith gain

3.653

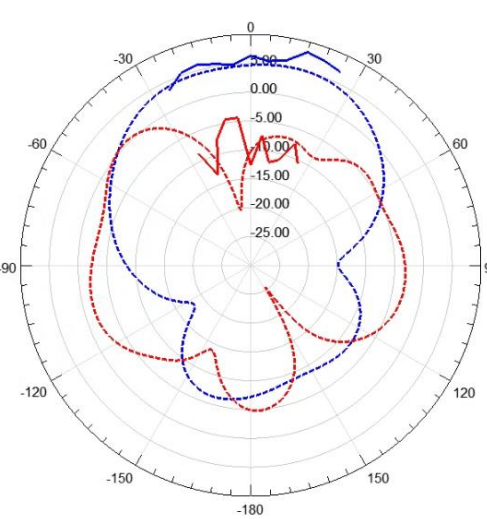
Avg 2.778 (31.5%)

59 GHz



YZ(E)

1.903

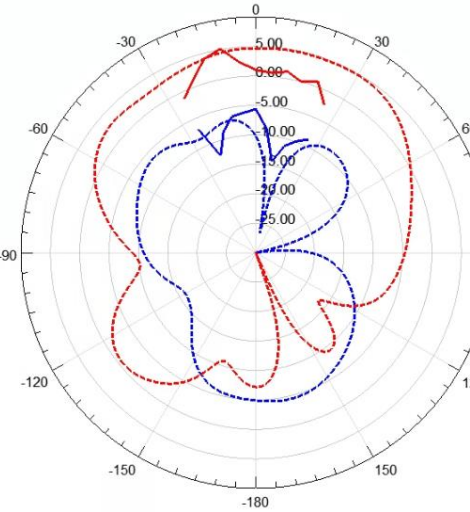


Zenith gain

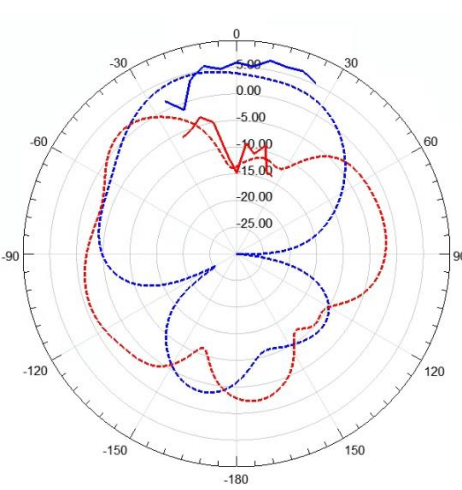
6.245

Avg 3.635 (71.8%)

63 GHz



1.025

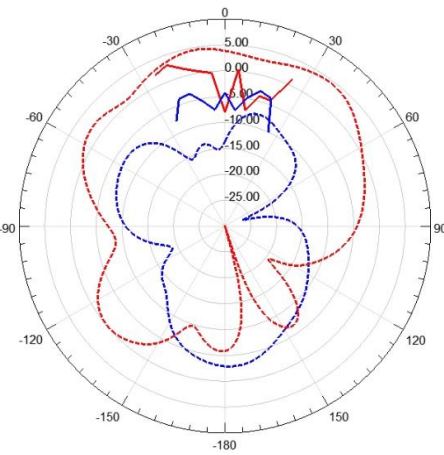


Zenith gain

6.676

Avg -1.336 (X)

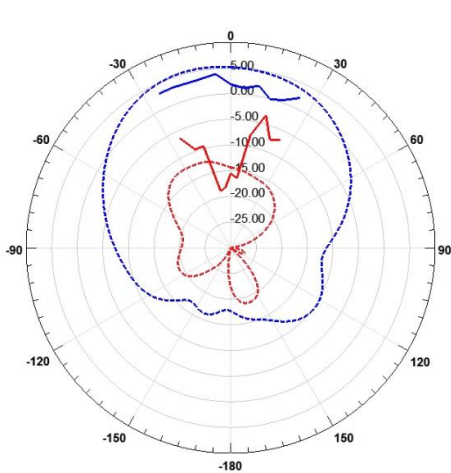
67 GHz



-8.012

Radiation Pattern Rx1 Realized Gain

XZ(H)

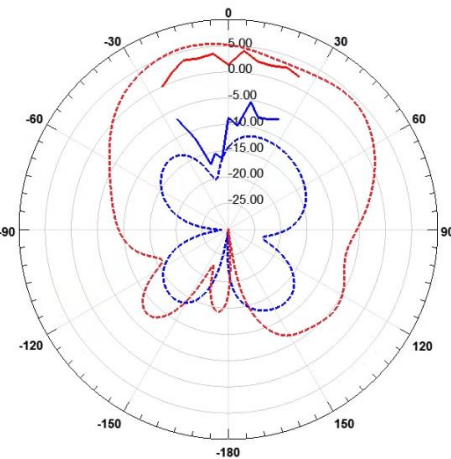


Zenith gain

1.833

59 GHz

Avg 1.581 (15.9%)



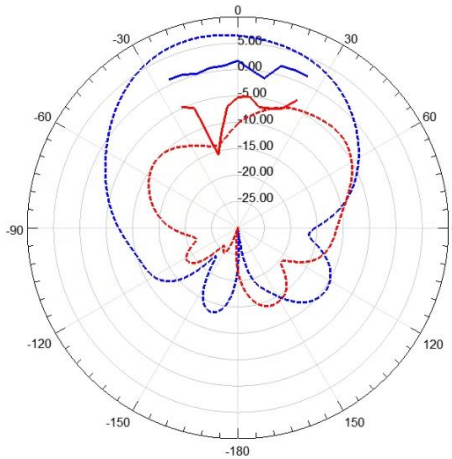
1.329

YZ(E)

Zenith gain

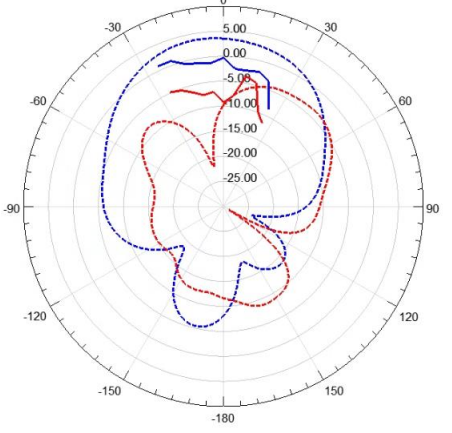
1.644

Avg 2.649 (37.9%)



3.654

Zenith gain



-0.305

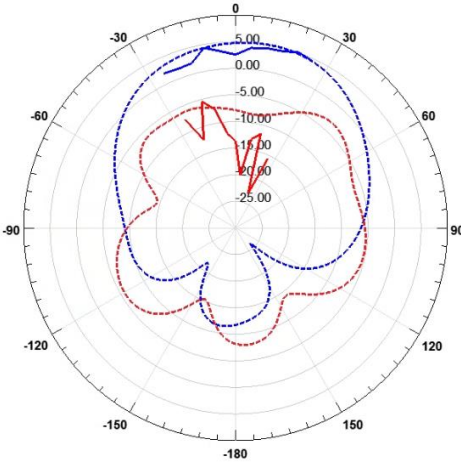
67 GHz

Avg -0.935 (67.4%)

-1.565

Radiation Pattern Rx2 Realized Gain

XZ(H)



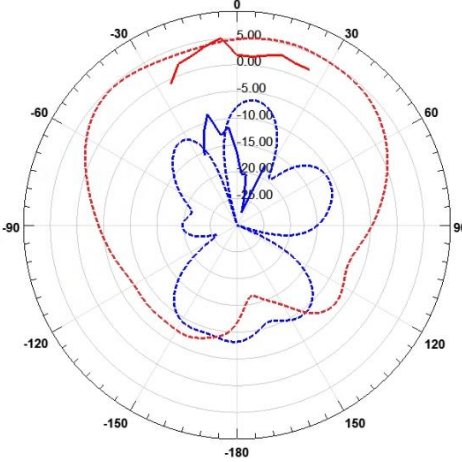
Zenith gain

2.573

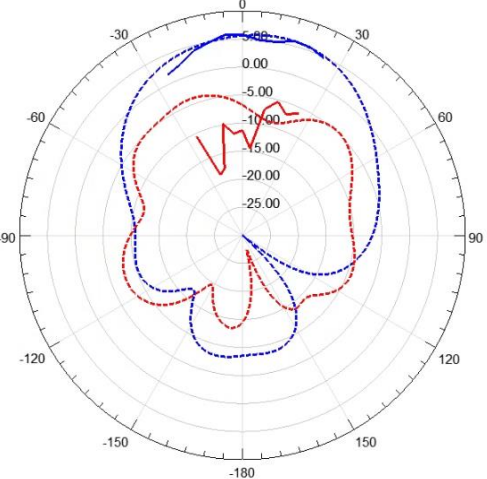
59 GHz

Avg 2.409 (6.8%)

YZ(E)



2.245

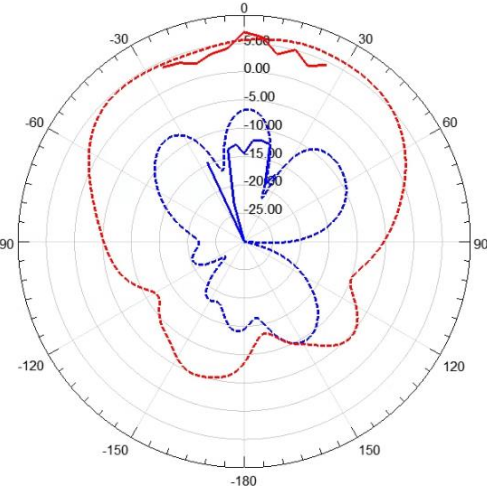


Zenith gain

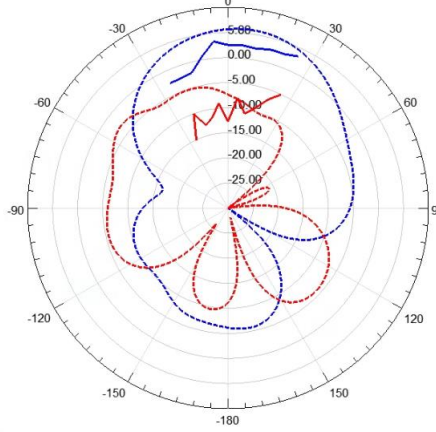
5.765

63 GHz

Avg 6.385 (9.7%)



7.005

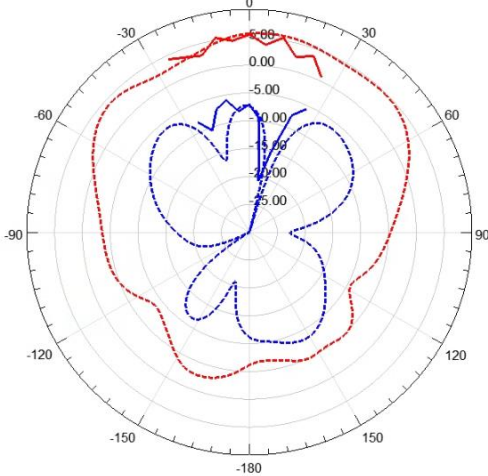


Zenith gain

2.512

67 GHz

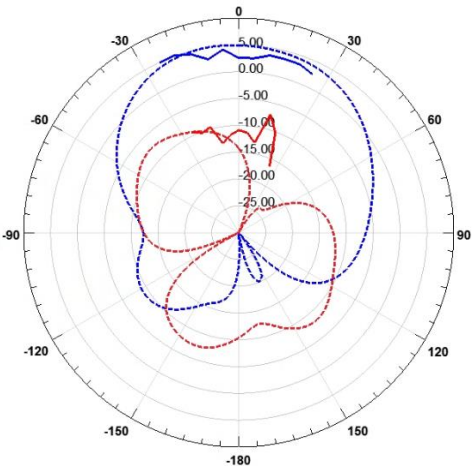
Avg 4.013 (37.4%)



5.513

Radiation Pattern Rx3 Realized Gain

XZ(H)

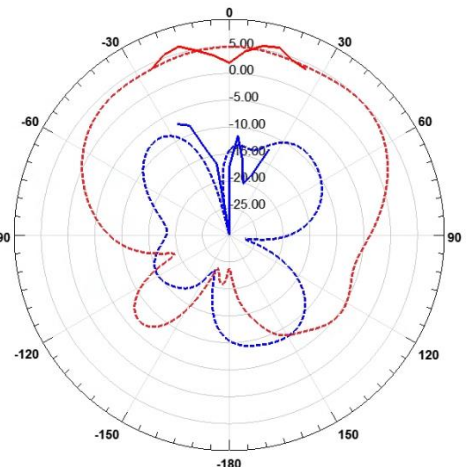


Zenith gain

2.613

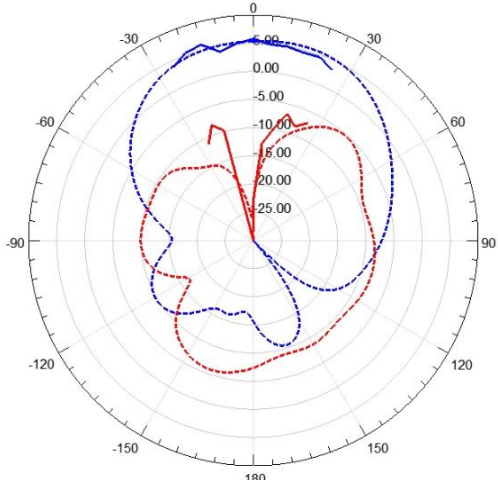
59 GHz

Avg 2.273 (14.9%)



1.933

YZ(E)

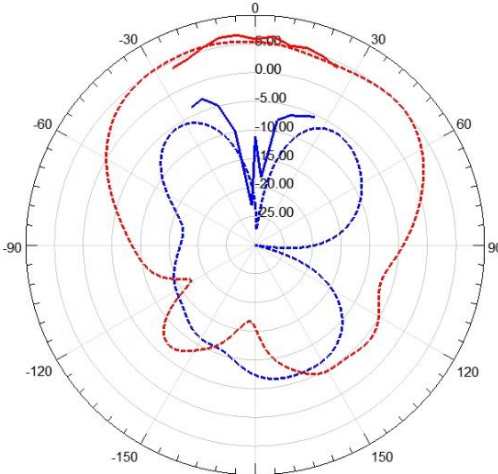


Zenith gain

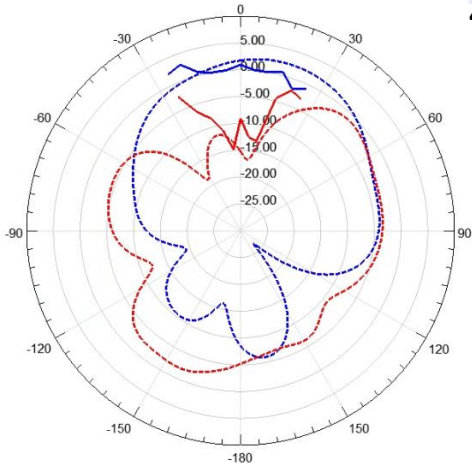
5.746

63 GHz

Avg 5.796 (2.5%)



5.846

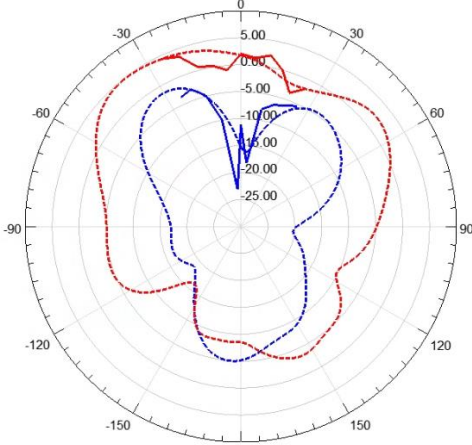


Zenith gain

0.945

67 GHz

Avg 1.484 (36.3%)



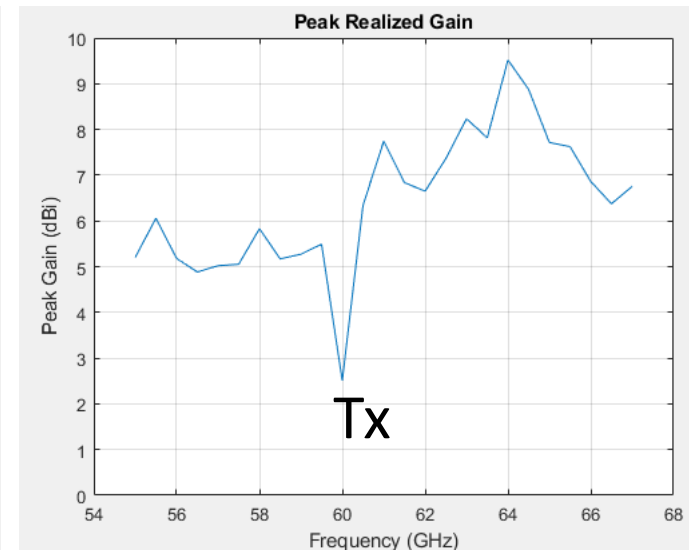
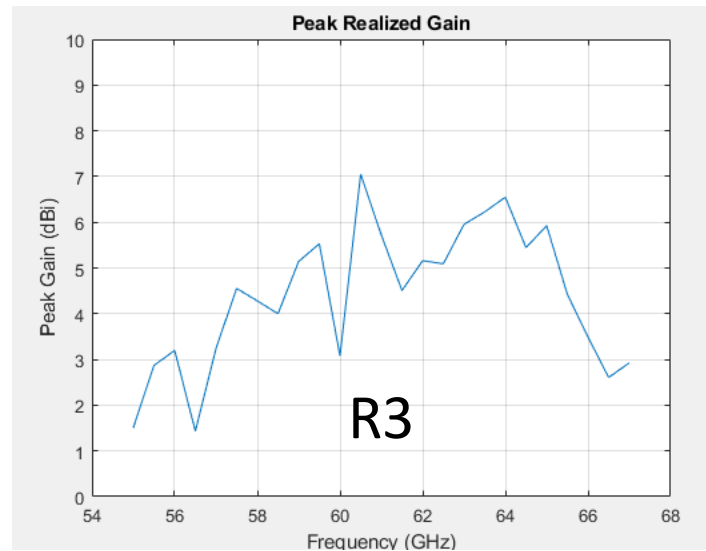
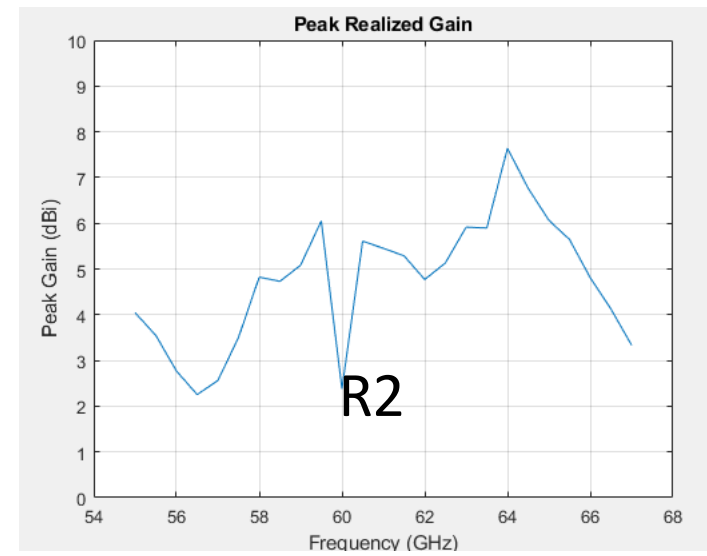
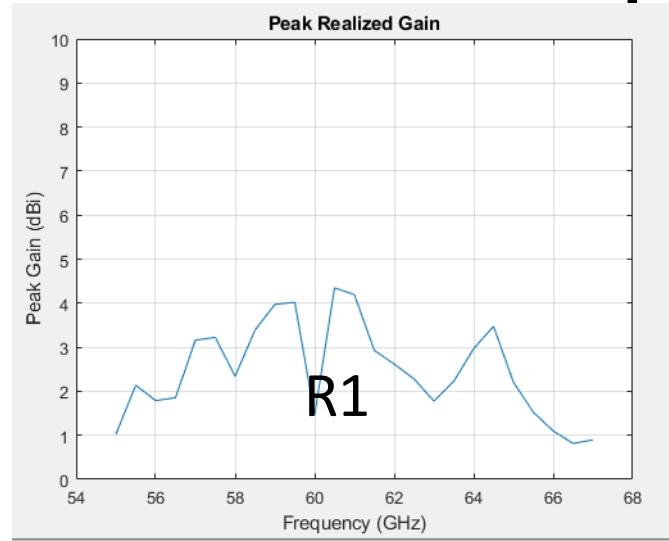
2.023

Outline

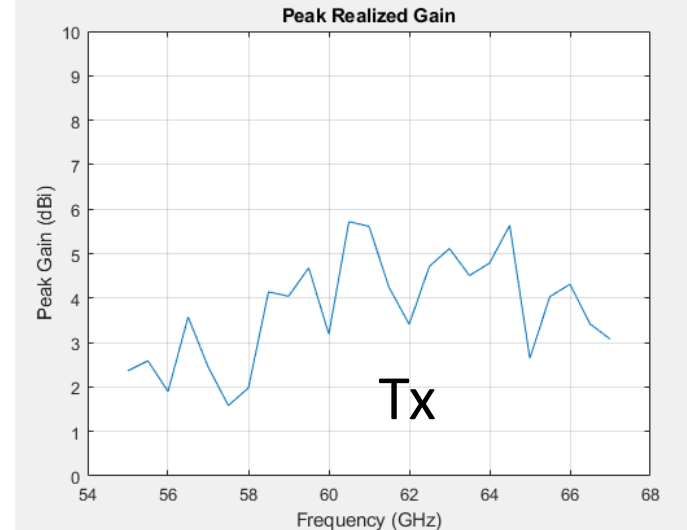
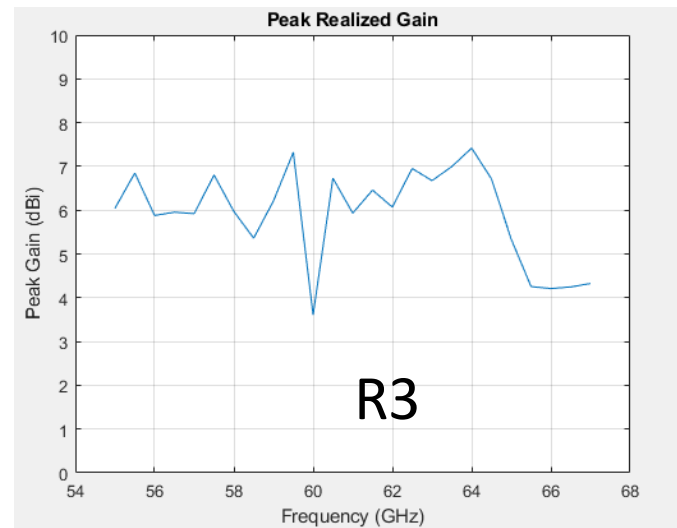
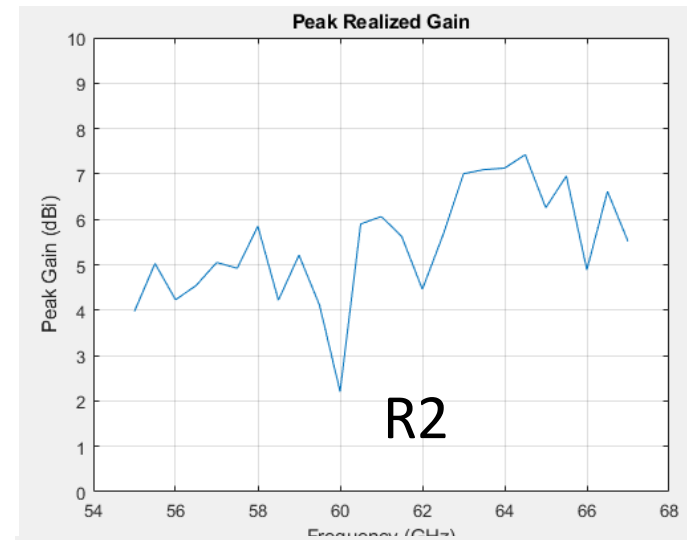
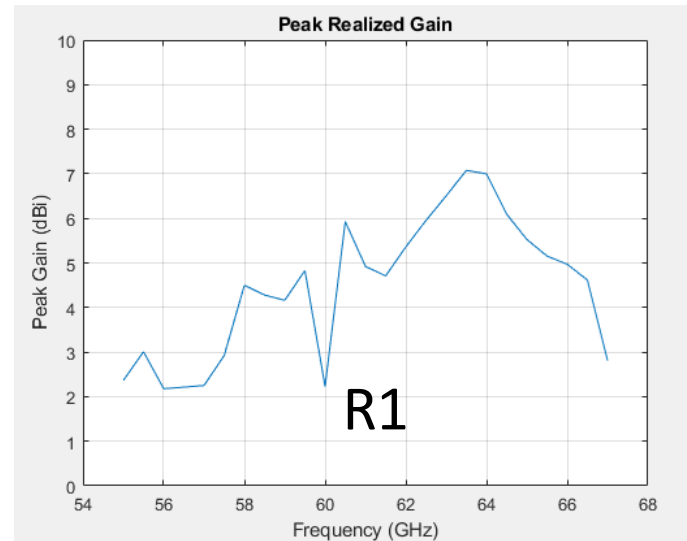
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Peak Realized Gain XZ plane



Peak Realized Gain YZ plane



Peak Realized Gain within 57-64 GHz

	XZ plane	YZ plane
Tx	9.36 dBi	6.06 dBi
Rx1	4.87 dBi	6.73 dBi
Rx2	7.70 dBi	7.21 dBi
Rx3	7.03 dBi	7.72 dBi

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Conclusion

- Antenna Peak Gain is around 9.36 dBi (Tx), 6.73 dBi (Rx1), 7.70 dBi (Rx2) and 7.72 dBi (Rx3)