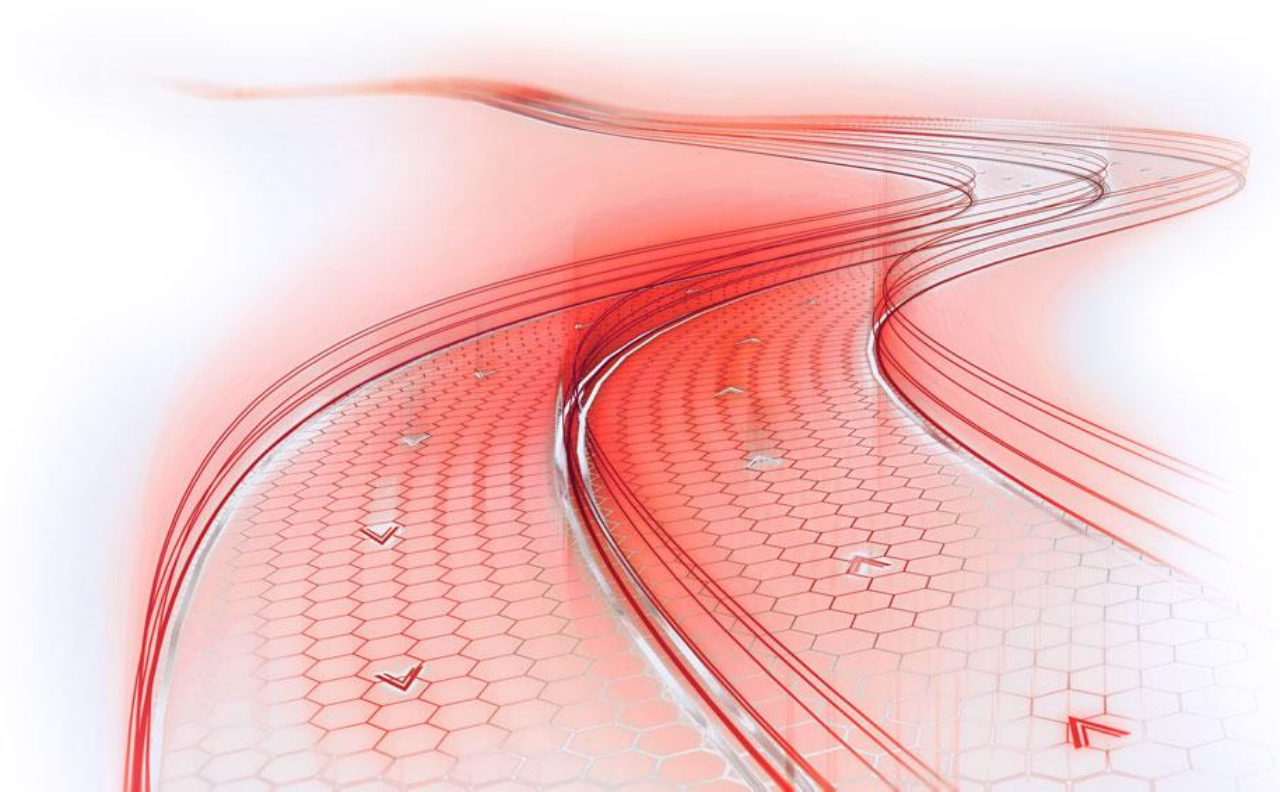
# VitaSense 1.5 Antenna Characteristics



26.07.2023

# Radiated Power Measurements

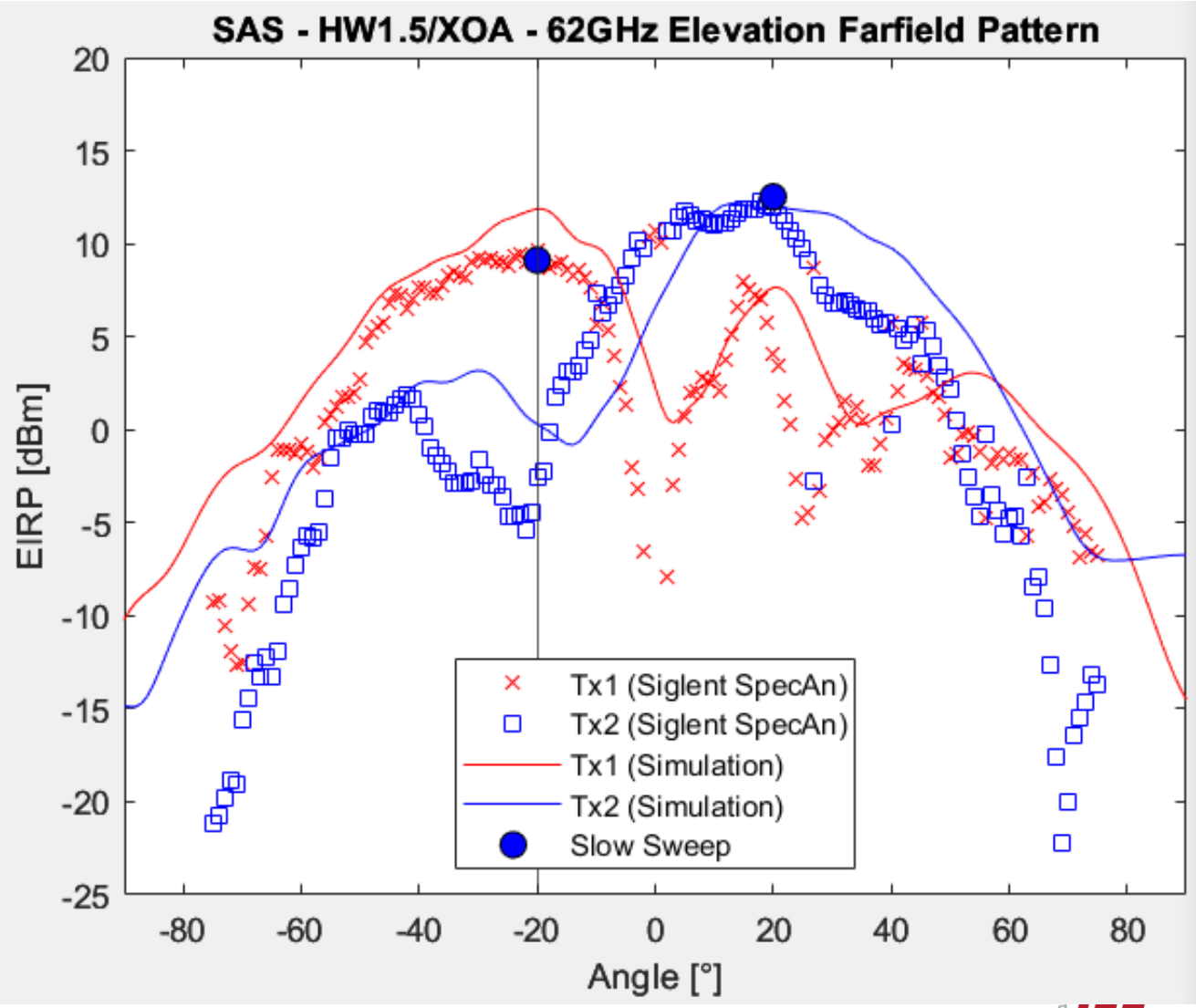
## Farfield Pattern and EIRP Spectrum Analysis HW 1.5

VitaSense 1.5
Measurements farfield elevation pattern
EIRP Spectrum

Measurement Parameter:

- Distance 1250 mm
- Test Horn MiWave 25 Gain V
- VDI Mixer 60 GHz
- Spherical positioner SAS

- Spectrum Analyzer: R&S FSV3030
  RBW = 40 MHz, VBW = 40 MHz
  SWT 175 us (Zero Span Mode)
  Clear write trace
  Detector setting: Pos. Peak





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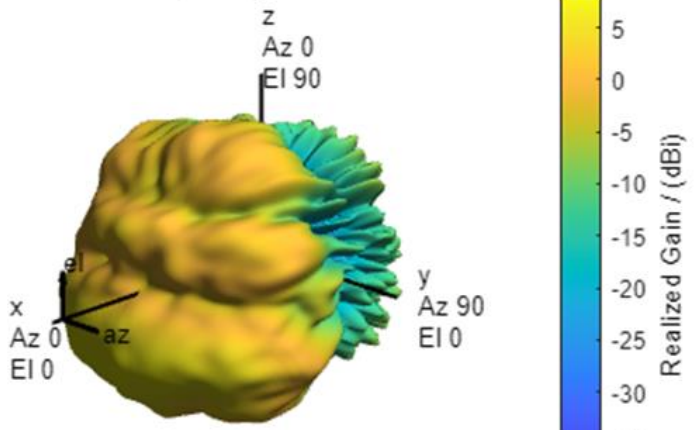
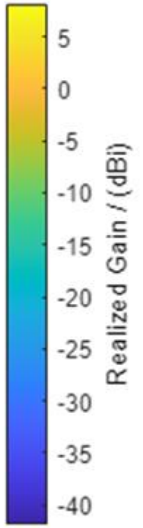
Classification: General

# Antenna Design/Simulation

## Farfield Pattern TX1/2 & RX

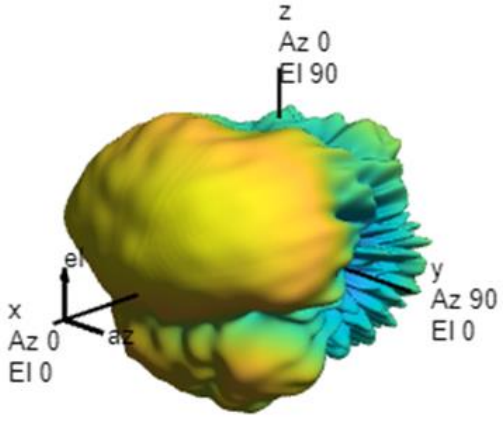
TX1 / Frequency = 62 GHz

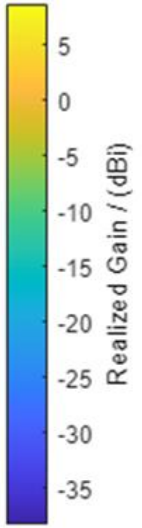



| Maximum: 8.151 dBi | Max in band: 9.5953 dBi |
|---|---|
| Elevation angle: -19 ° | Elevation angle: -25 ° |
| Azimuth angle: 1 ° | Azimuth angle: 8 ° |

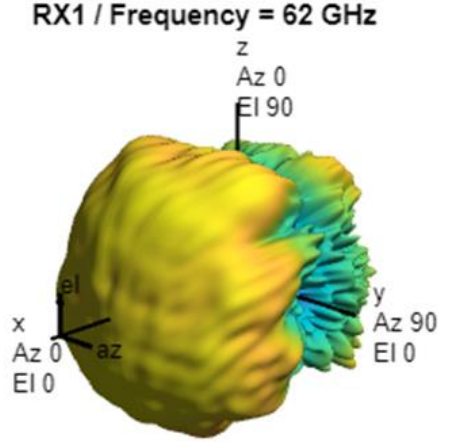
TX2 / Frequency = 62 GHz

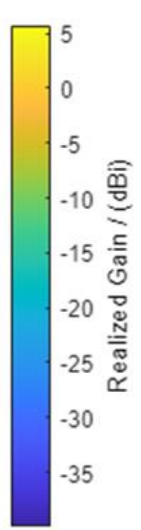



| Maximum: 8.7332 dBi | Max in band: 9.7153 dBi |
|---|---|
| Elevation angle: 27 ° | Elevation angle: 7 ° |
| Azimuth angle: 9 ° | Azimuth angle: 19 ° |

RX1 / Frequency = 62 GHz




| Maximum: 5.7195 dBi | Max in band: 6.1939 dBi |
|---|---|
| Elevation angle: -17 ° | Elevation angle: 44 ° |
| Azimuth angle: -1 ° | Azimuth angle: 19 ° |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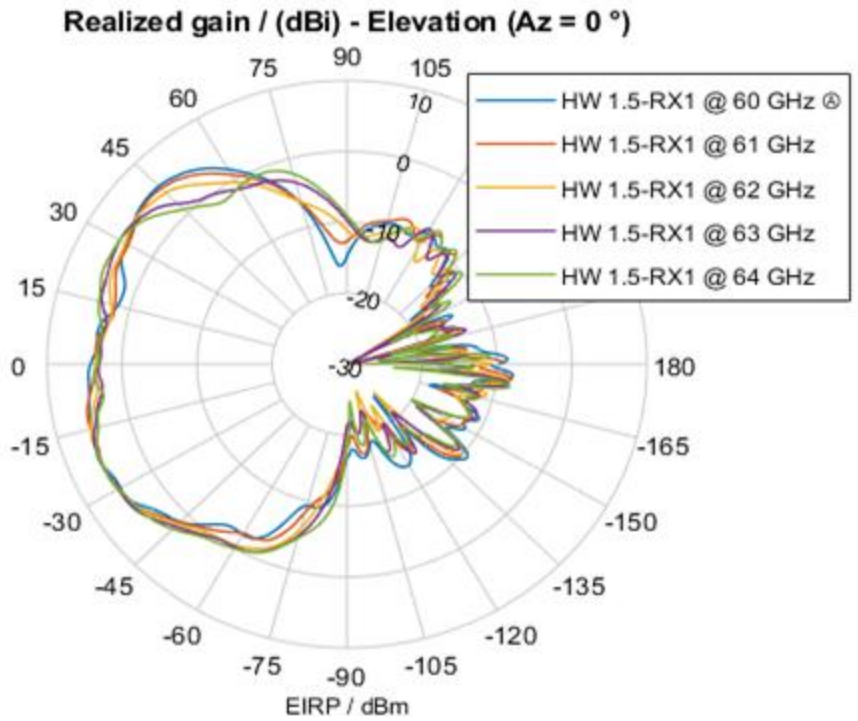
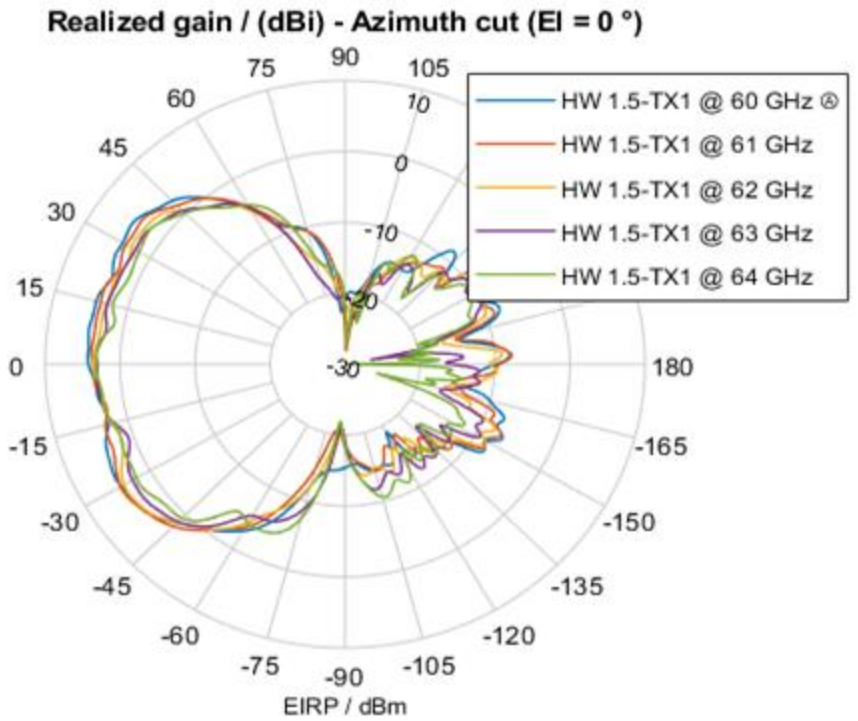
Classification: General

# Antenna Design/Simulation

## Farfield Realized Gain RX1





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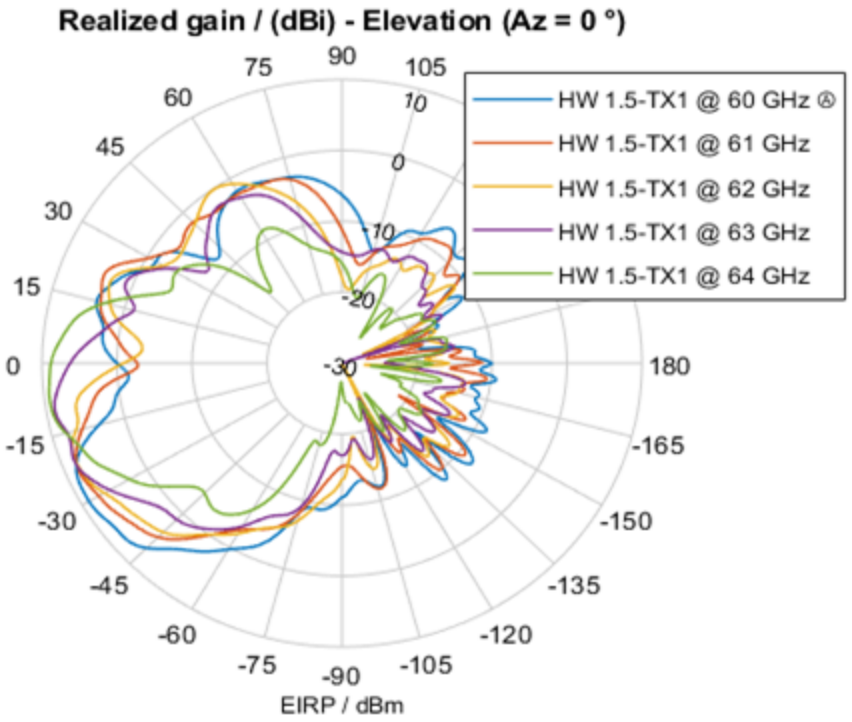
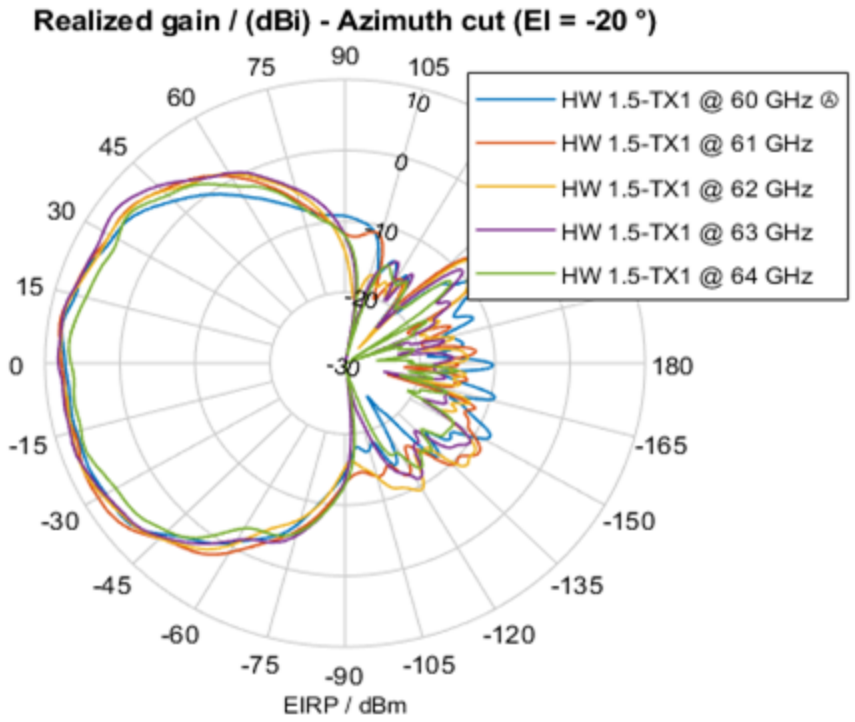
Classification: General

# Antenna Design/Simulation

## Farfield Realized Gain TX1





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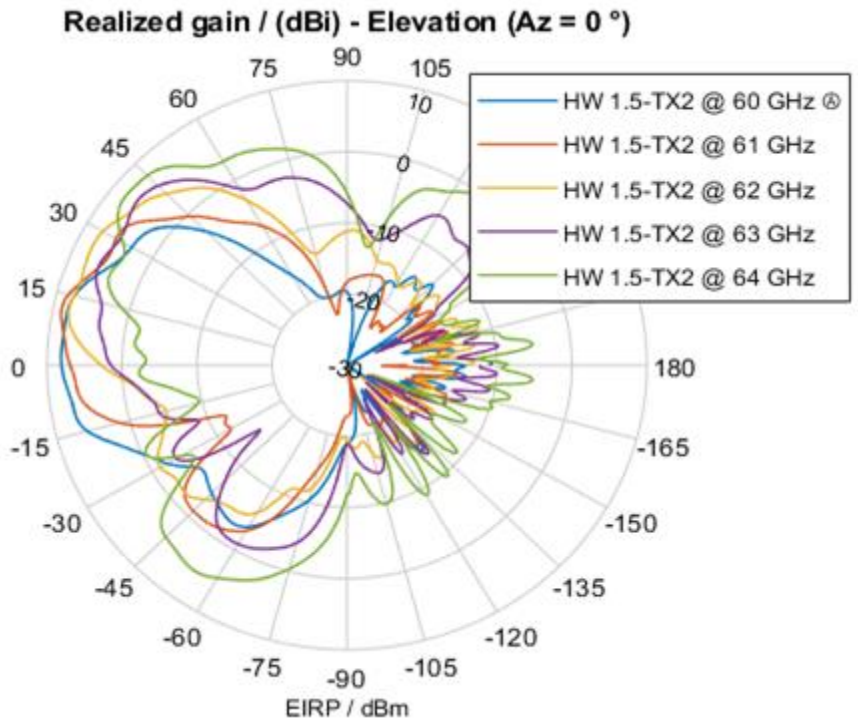
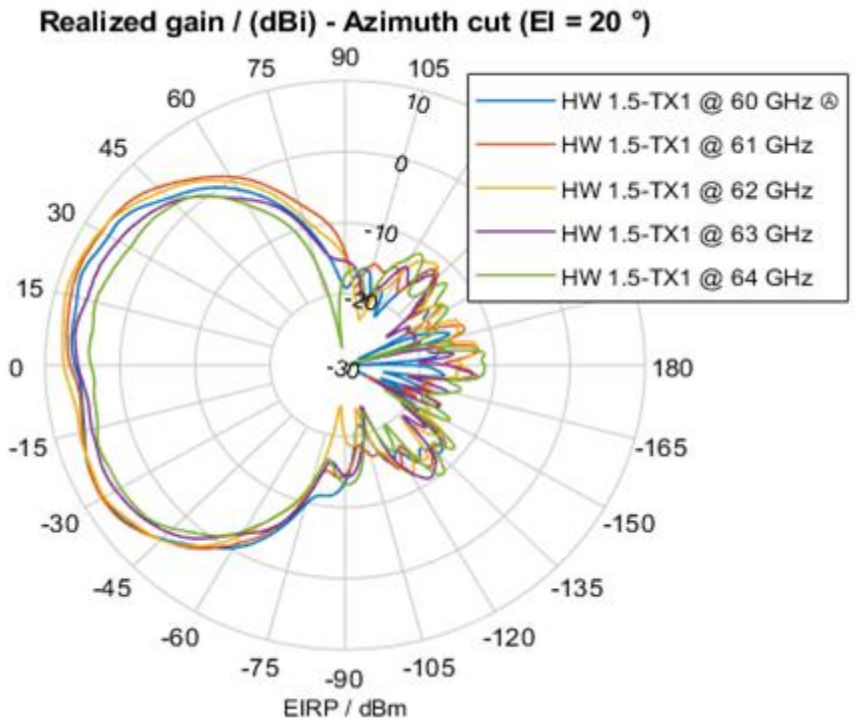
Classification: General

# Antenna Design/Simulation

## Farfield Realized Gain TX2





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