

Report for MBZ255

Shenzhen Maifar Technology Co.,Ltd

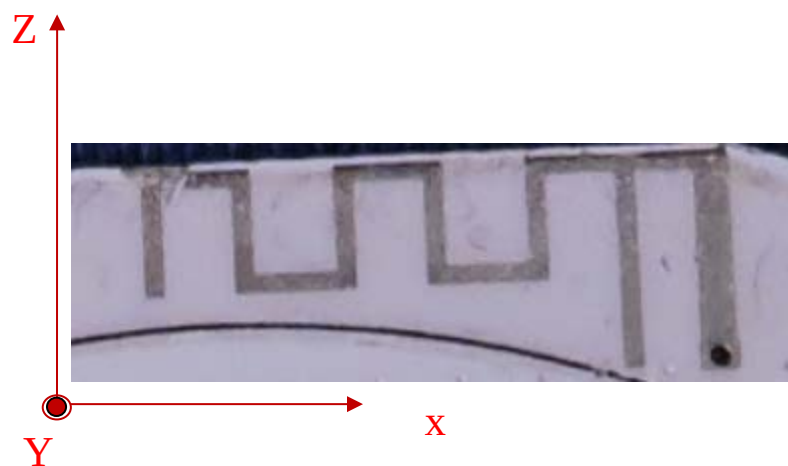
4th Floor Building B, Shenzhen Longhua Furanna Wisdom Park, No.1 Qingning Road, Qinghu Community, Longhua Sub-district, Longhua District, Shenzhen, China

Tested Products.

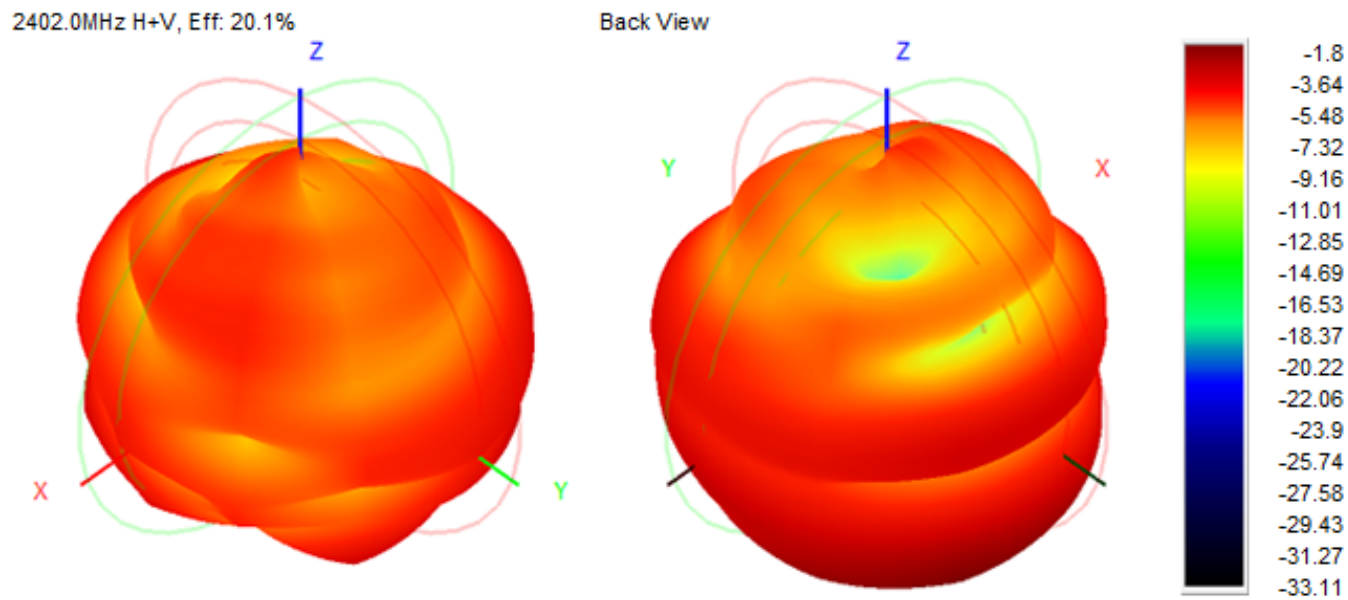
- Antenna 1: PCB antenna.
 - Frequency =2402MHz
 - Frequency =2404MHz
 - Frequency =2440MHz
 - Frequency =2441MHz
 - Frequency =2472MHz
 - Frequency =2480MHz

Radiation pattern: Antenna 3D Pattern at $f = 2402\text{MHz}$

Coordinate System Reference: Antenna-RX



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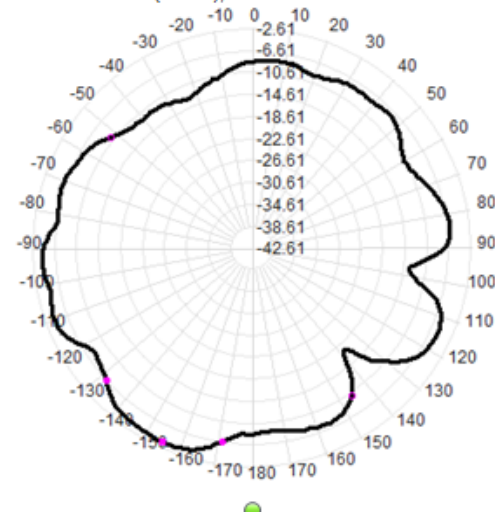


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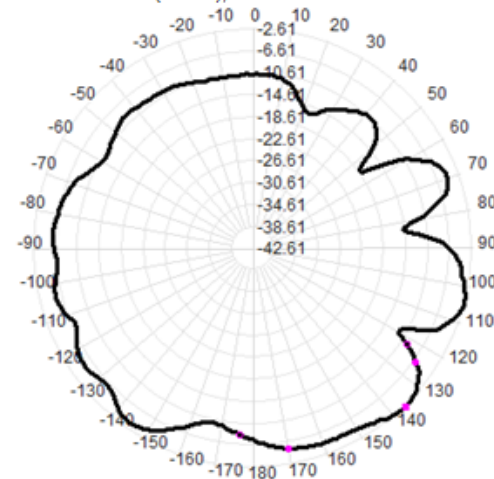
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Radiation pattern: Antenna 2D Pattern at $f = 2402\text{MHz}$

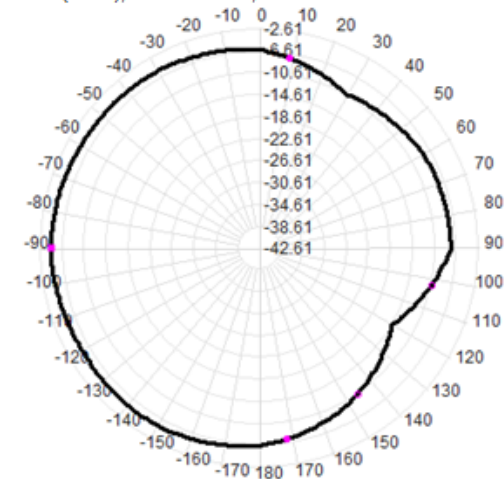
2402.0MHz Total(E1-XZ), Max= -3.74dBi



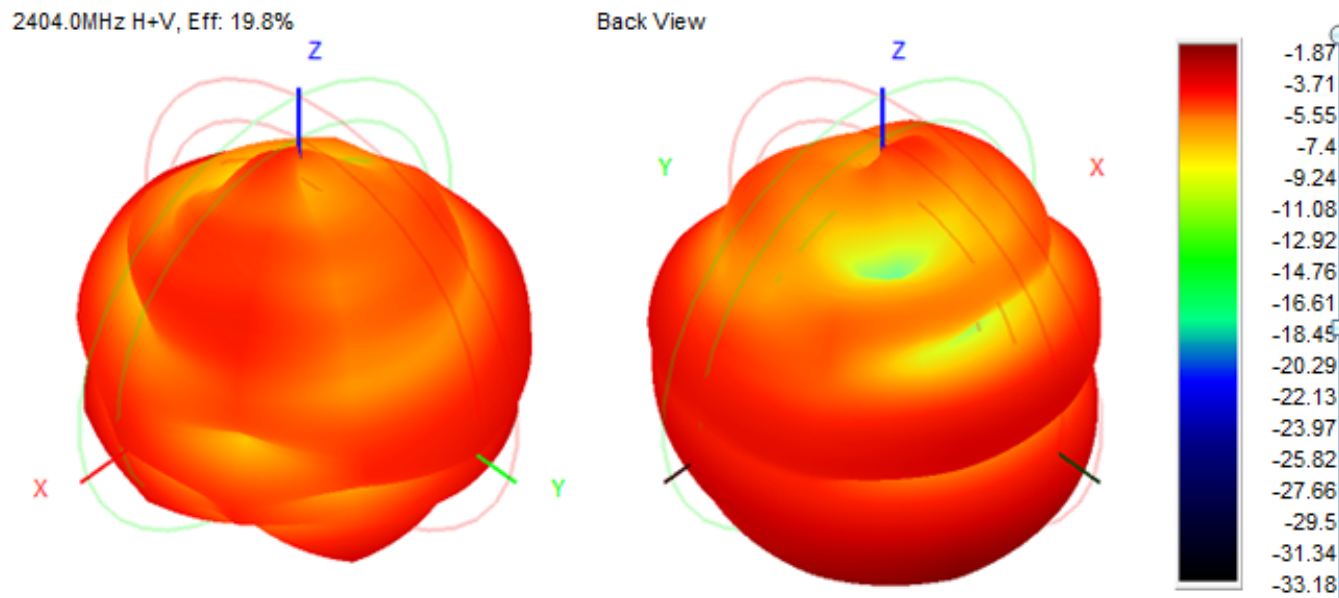
2402.0MHz Total(E2-YZ), Max= -2.61dBi



Total(H-XY), Max= -4.60dBi, CirD=10.20



Radiation pattern: Antenna 3D Pattern at $f = 2404\text{MHz}$



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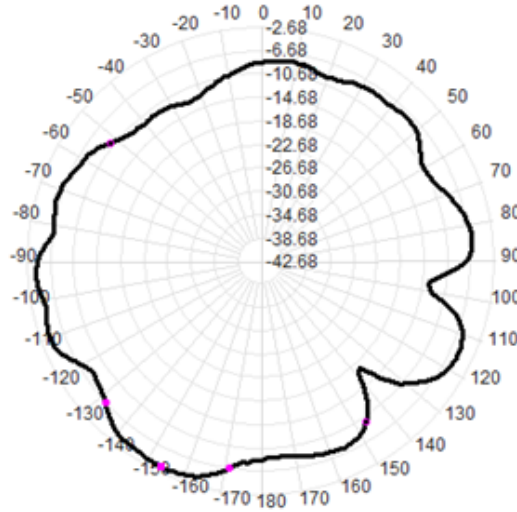
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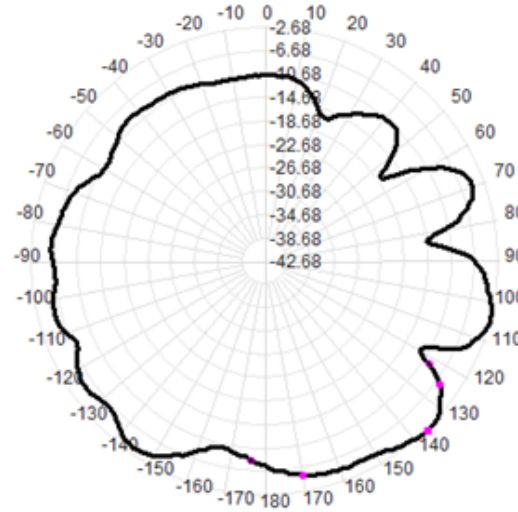
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Radiation pattern: Antenna 2D Pattern at $f = 2404\text{MHz}$

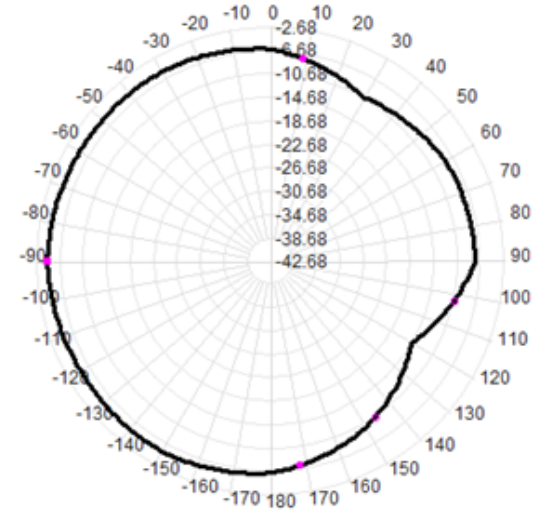
2404.0MHz Total(E1-XZ), Max= -3.77dBi



2404.0MHz Total(E2-YZ), Max= -2.68dBi



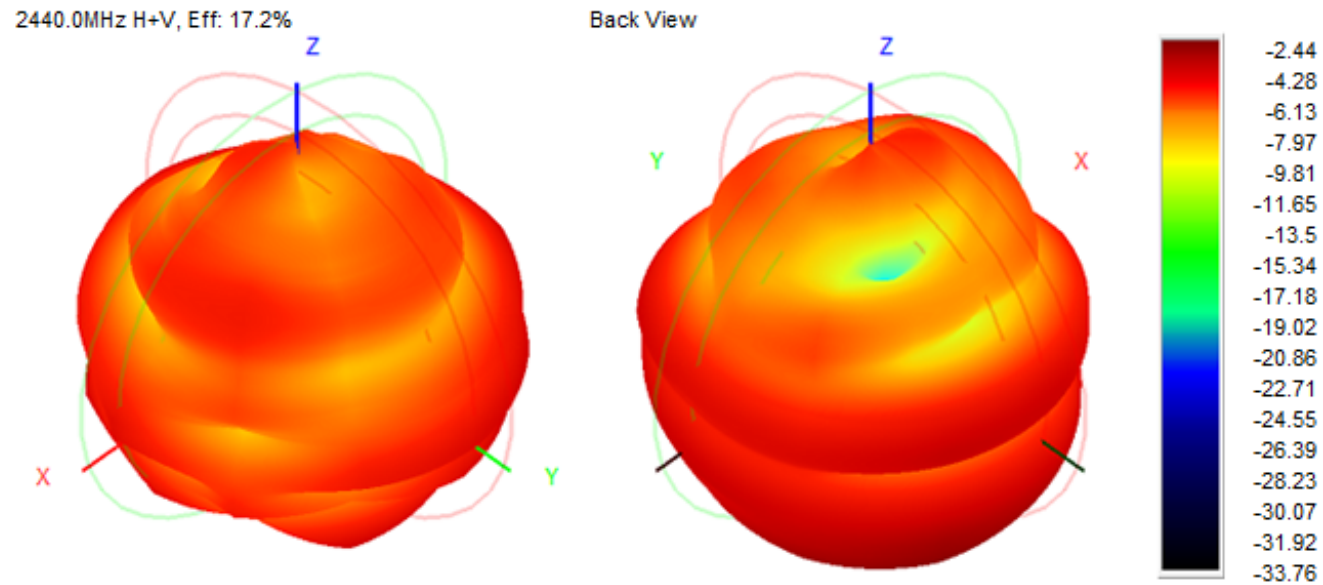
Total(H-XY), Max= -4.59dBi, CirD=10.37



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Radiation pattern: Antenna 3D Pattern at $f = 2440\text{MHz}$

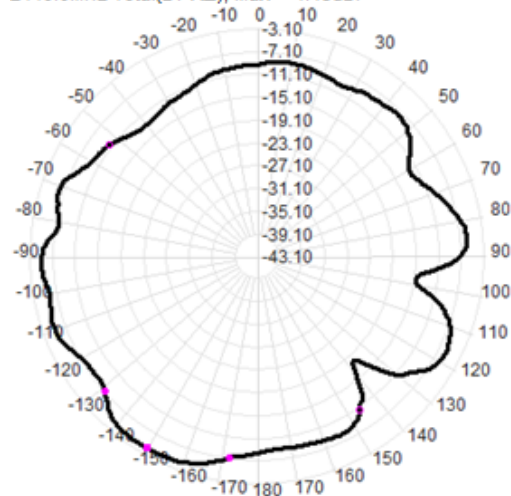


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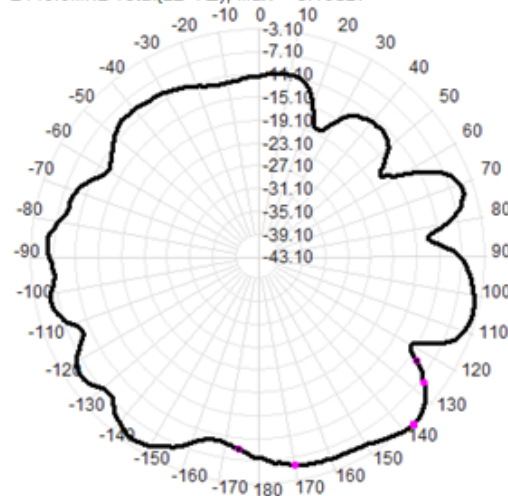
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Radiation pattern: Antenna 2D Pattern at $f = 2440\text{MHz}$

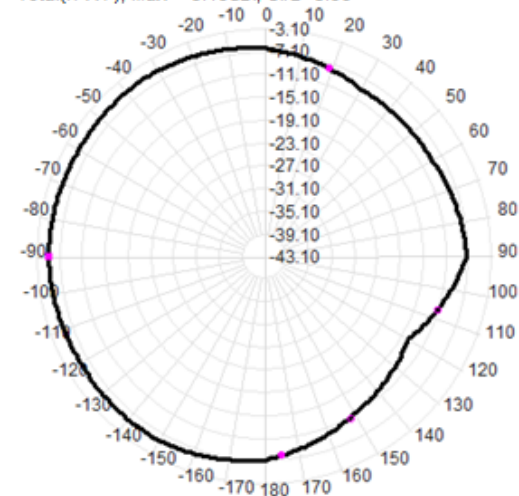
2440.0MHz Total(E1-XZ), Max= -4.45dBi



2440.0MHz Total(E2-YZ), Max= -3.10dBi



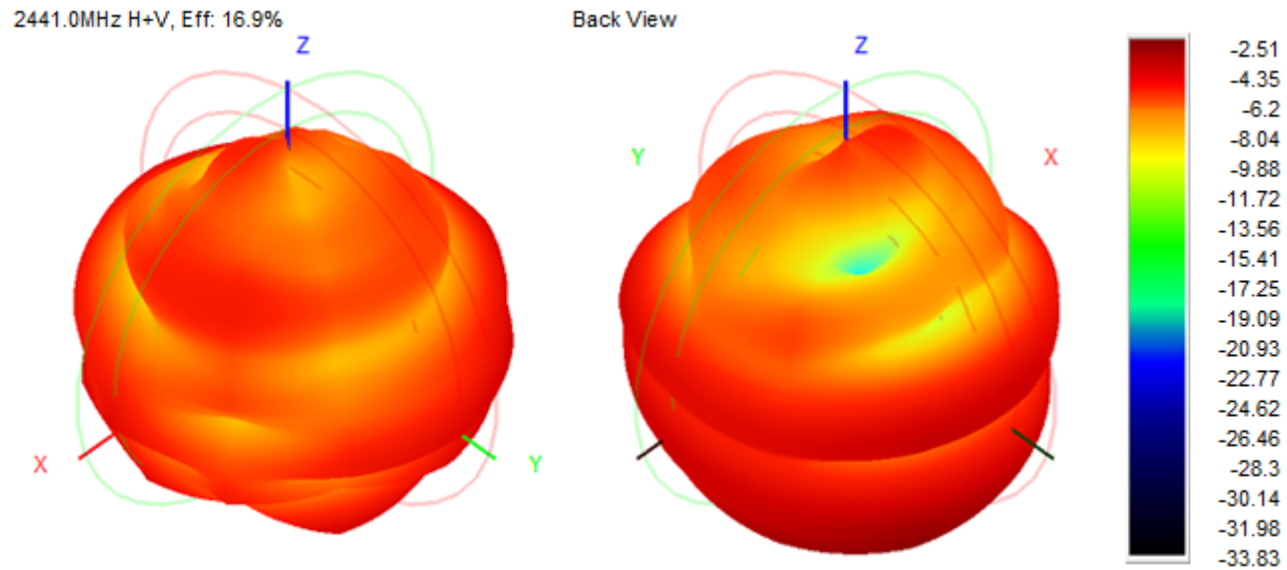
Total(H-XY), Max= -5.19dBi, CirD=8.96



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Radiation pattern: Antenna 3D Pattern at $f = 2441\text{MHz}$

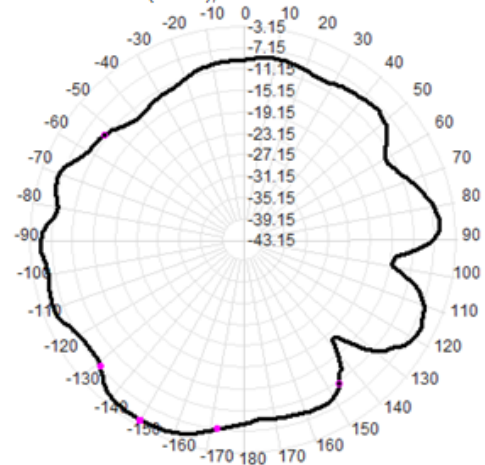


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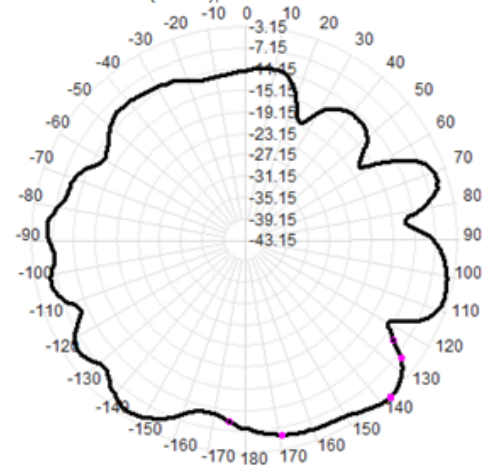
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Radiation pattern: Antenna 2D Pattern at $f = 2441\text{MHz}$

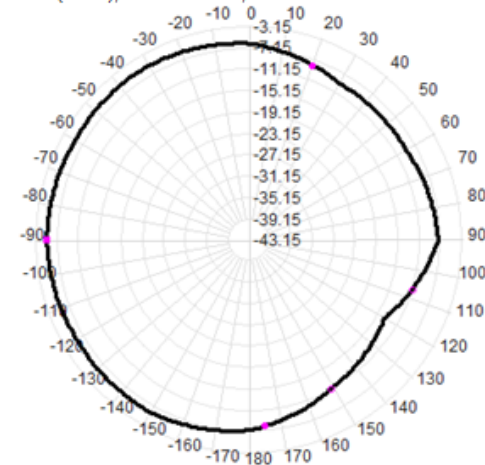
2441.0MHz Total(E1-XZ), Max= -4.49dBi



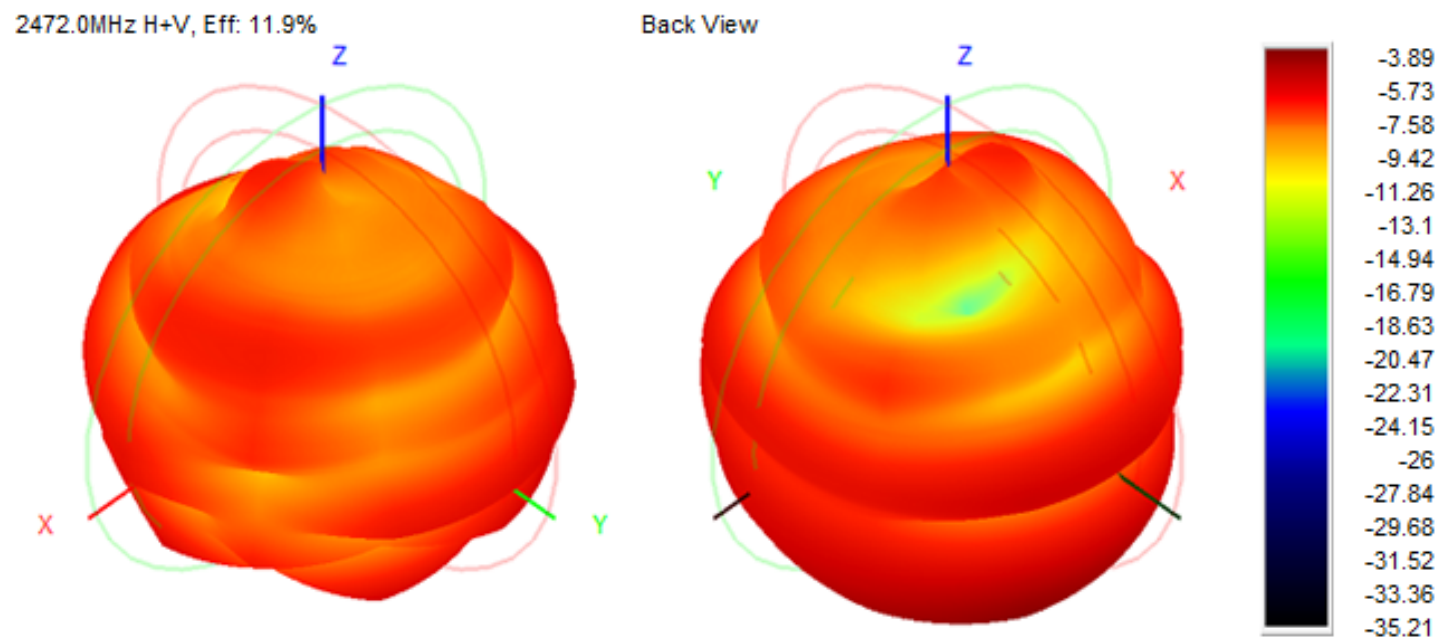
2441.0MHz Total(E2-YZ), Max= -3.15dBi



Total(H-XY), Max= -5.30dBi, CirD=8.69



Radiation pattern: Antenna 3D Pattern at $f = 2472\text{MHz}$

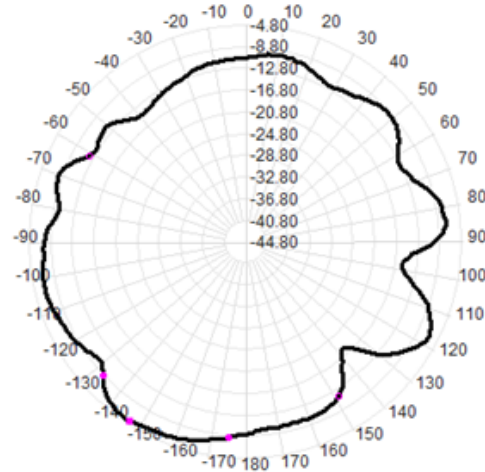


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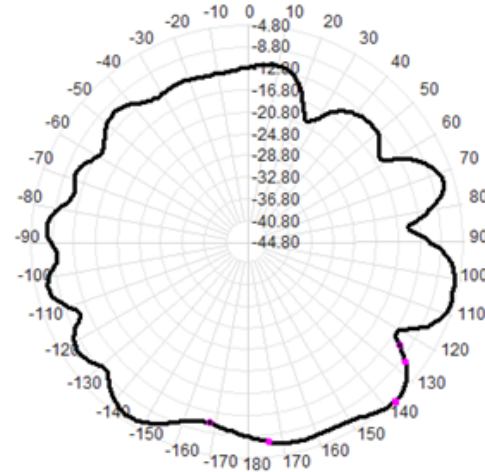
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Radiation pattern: Antenna 2D Pattern at $f = 2472\text{MHz}$

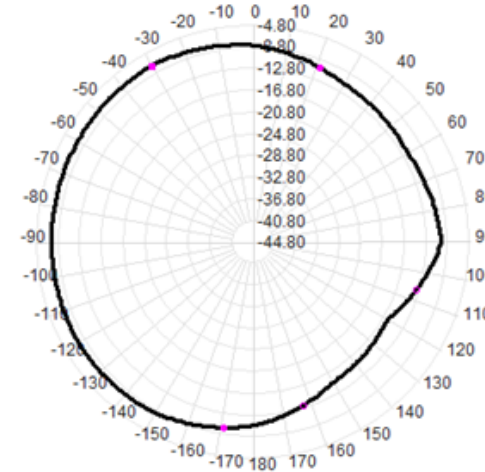
2472.0MHz Total(E1-XZ), Max= -5.63dBi



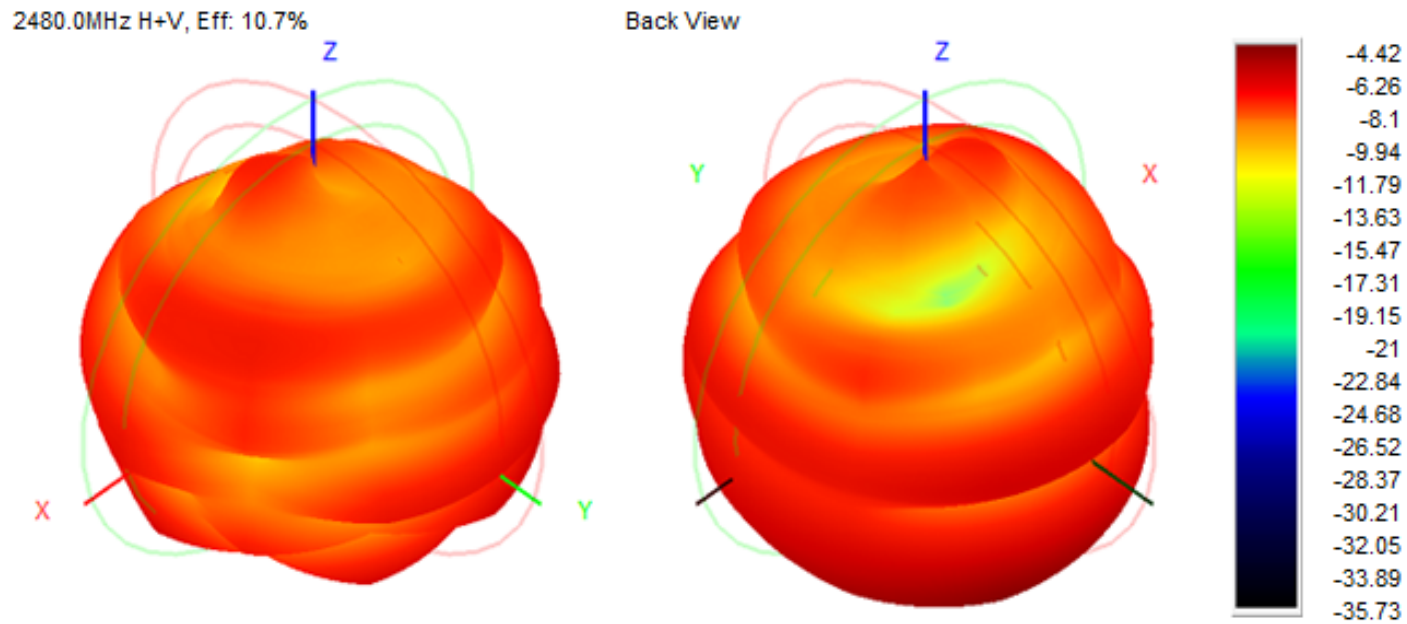
2472.0MHz Total(E2-YZ), Max= -4.80dBi



Total(H-XY), Max= -7.32dBi, CirD=8.96



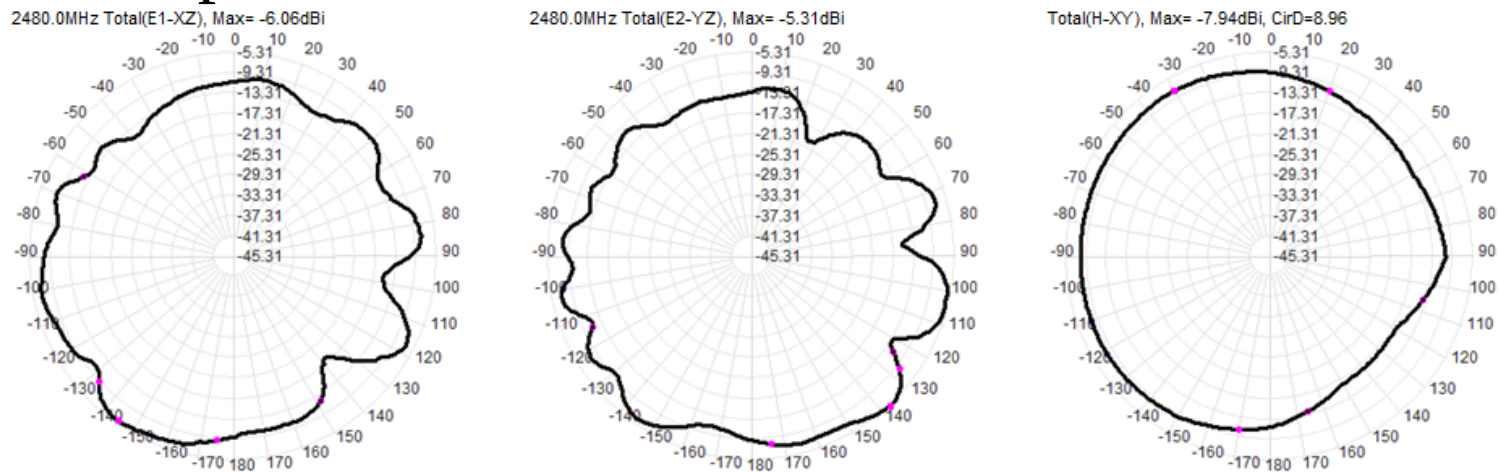
Radiation pattern: Antenna 3D Pattern at $f = 2480\text{MHz}$



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Radiation pattern: Antenna 2D Pattern at $f = 2480\text{MHz}$



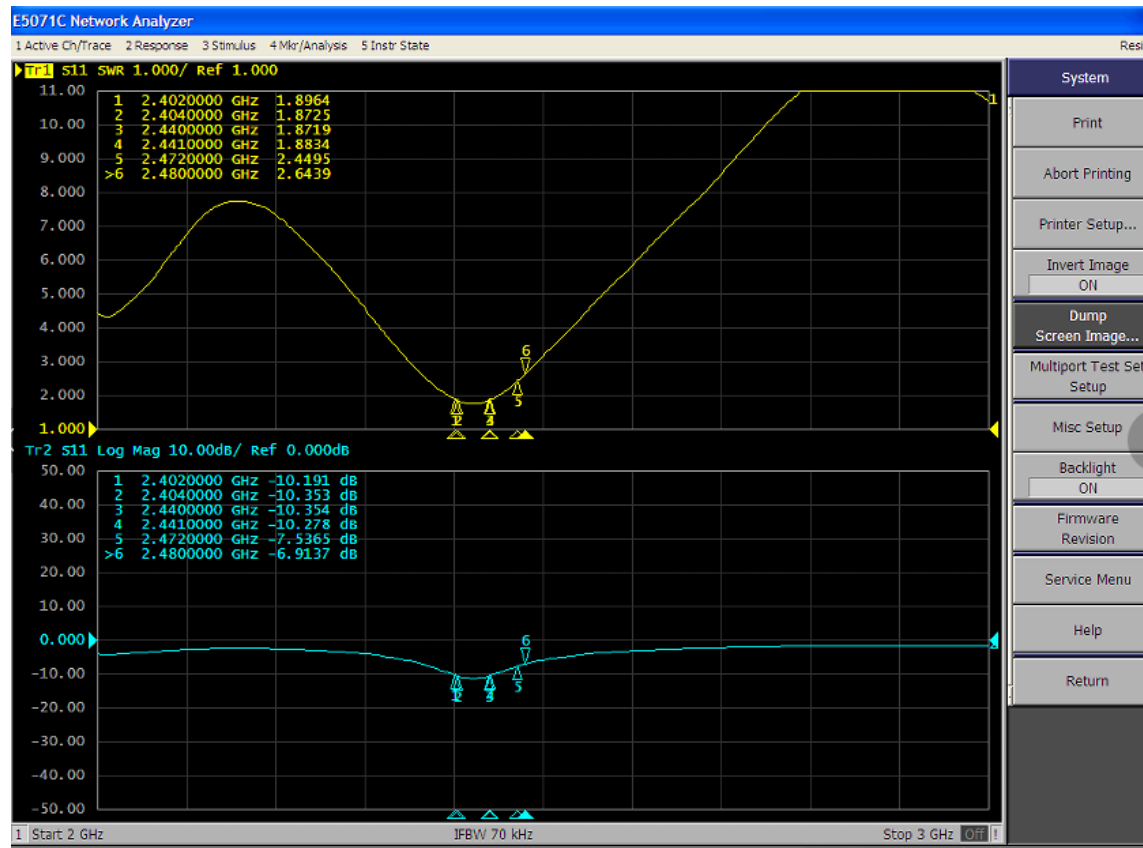
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Return Loss: Antenna1

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Measurements summary

Frequency ID	1	2	3	4	5	6
Frequency (MHz)	2402.0	2404.0	2440.0	2441.0	2472.0	2480.0
Efficiency (dBi)	-6.98	-7.03	-7.64	-7.72	-9.23	-9.72
Gain (dBi)	-2.80	-2.87	-2.00	-2.51	-3.89	-4.42
Efficiency (%)	20.05	19.81	17.21	16.91	11.93	10.66
Directivity (dB)	5.18	5.16	5.20	5.21	5.34	5.30
Peak Gain Position (Theta)	74.00	75.00	40.00	41.00	40.00	40.00
Peak Gain Position (Phi)	120.00	120.00	120.00	120.00	120.00	120.00
Efficiency ThetaPol (%)	15.11	14.91	12.75	12.54	8.63	7.65
Efficiency PhiPol (%)	4.94	4.90	4.47	4.38	3.30	3.01
Upper Hem. Efficiency (%)	6.84	6.75	5.98	5.88	4.14	3.68
Lower Hem. Efficiency (%)	13.21	13.06	11.24	11.04	7.79	6.98