

NANP40X6AUW2R442G2F

2.4 & 4.9 GHz WiFi PCB Antenna

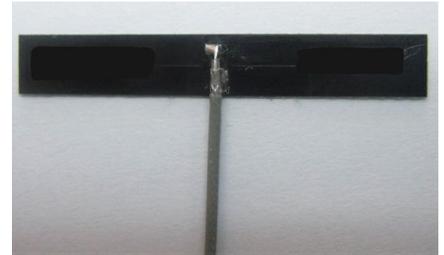


Features

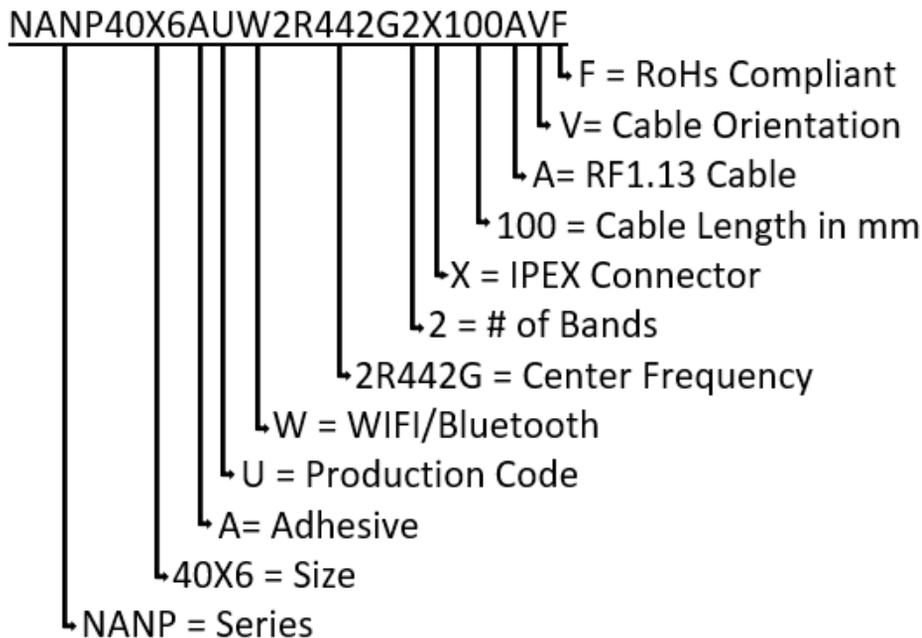
- Support WIFI Bands 2400~2500MHz, 4900~5900MHz
- Stable and Reliable Performance
- Compact Size
- RoHS Compliant

Applications

- IEEE802.11n (a/b/g)
- Hand-held devices when WiFi(802.11n/a/b/g) functions are needed



Part Number Breakdown



Standard Part Number Breakdowns

Part Numbers	Connector Type	Cable Length	Cable Type
NANP40X6AUW2R442G2X100AVF	IPEX (X)	100 mm	RF1.13 (A)

The table represents assembled part numbers available on www.niccomp.com from standard connector and cable options. For options not listed above please contact NIC"

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Specifications

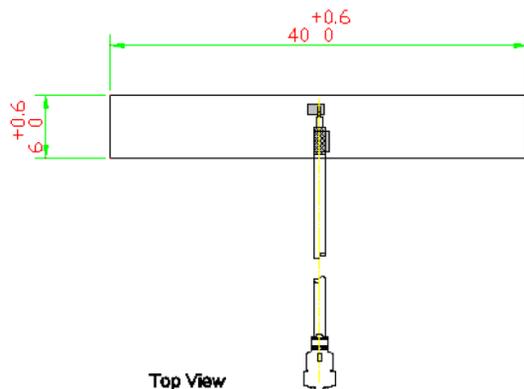
Electrical		
Frequency Range	2400~2500MHz	4900 ~5900 MHz
Bandwidth	100 (min)	1000 (min)
Peak Gain (typ.)	2.6 dBi	3.3 dBi
Efficiency (typ.)	79%	79%
V.S.W.R	2 Max.	
Polarization	Linear	
Impedance	50Ω	
Environmental		
Operating Temperature	-10°C~+85°C (With double-sided tape) -10°C~+85°C (Without double-sided tape)	
Storage Temperature	-10°C~+85°C (With double-sided tape) -10°C~+85°C (Without double-sided tape)	
Relative Humidity	10 ~ 95 %	

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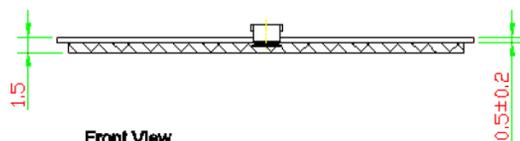
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Dimension Drawing



Top View



Front View



Side View

Dimensions (mm) & Mechanical

Body Length	40 (+0.6/-0)
Width	6 (+0.6/-0)
Height	0.5 ± 0.2
Cable Type	RF1.13
Mounting Method	Adhesive
Marking	NANP2R4W2B

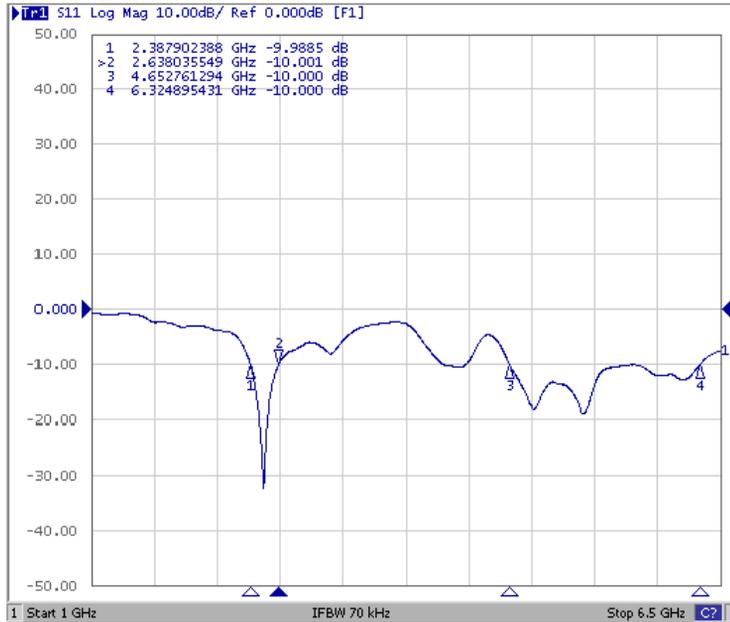
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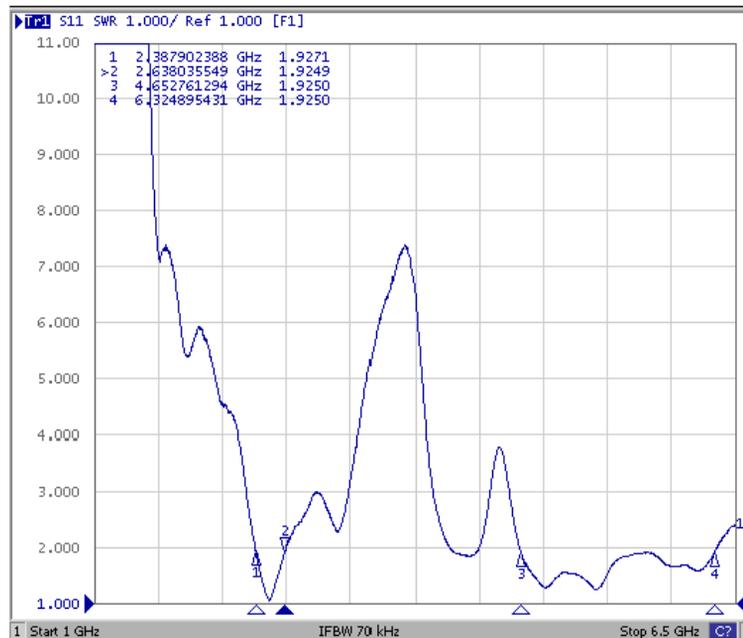


Antenna Parameters:

Return Loss (S_{11})



VSWR (S_{11})



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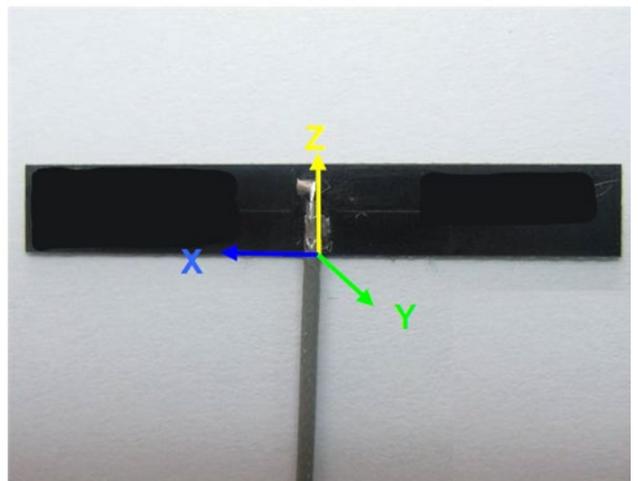
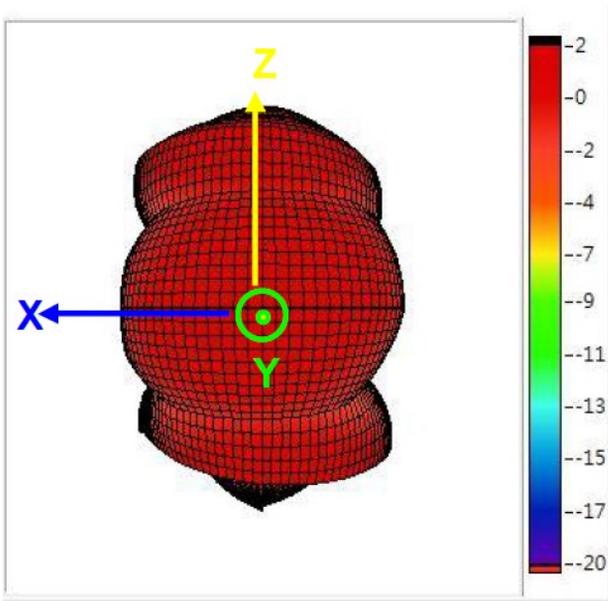
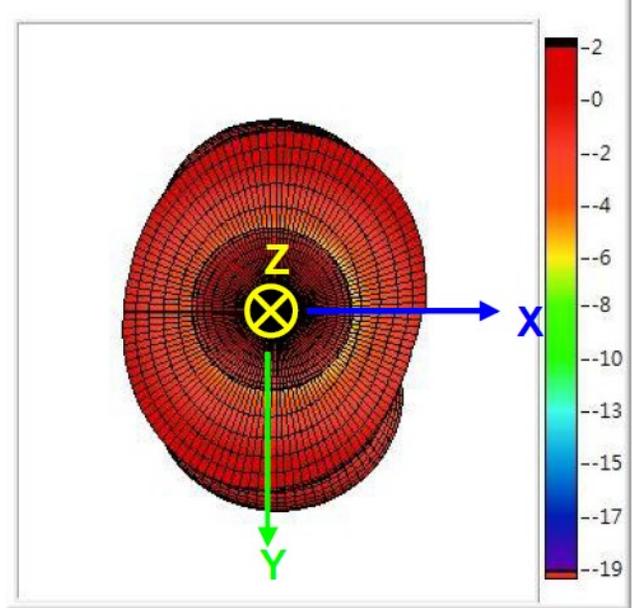
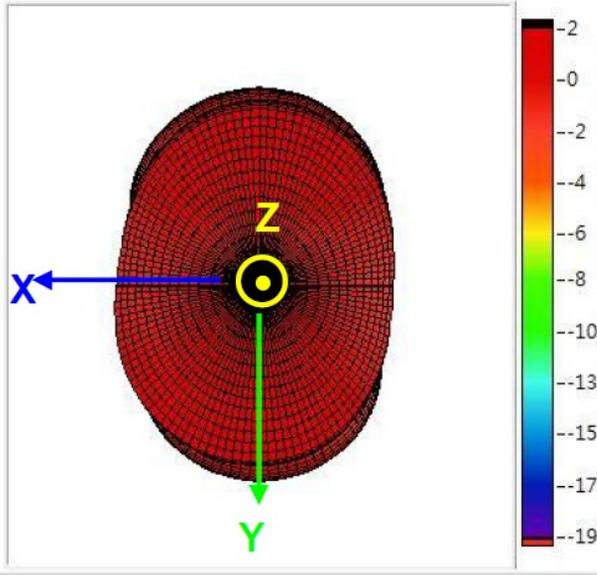
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Radiation Patterns

2400 ~ 2500 MHz Band

3D Gain Pattern @ 2442 MHz (unit: dBi)



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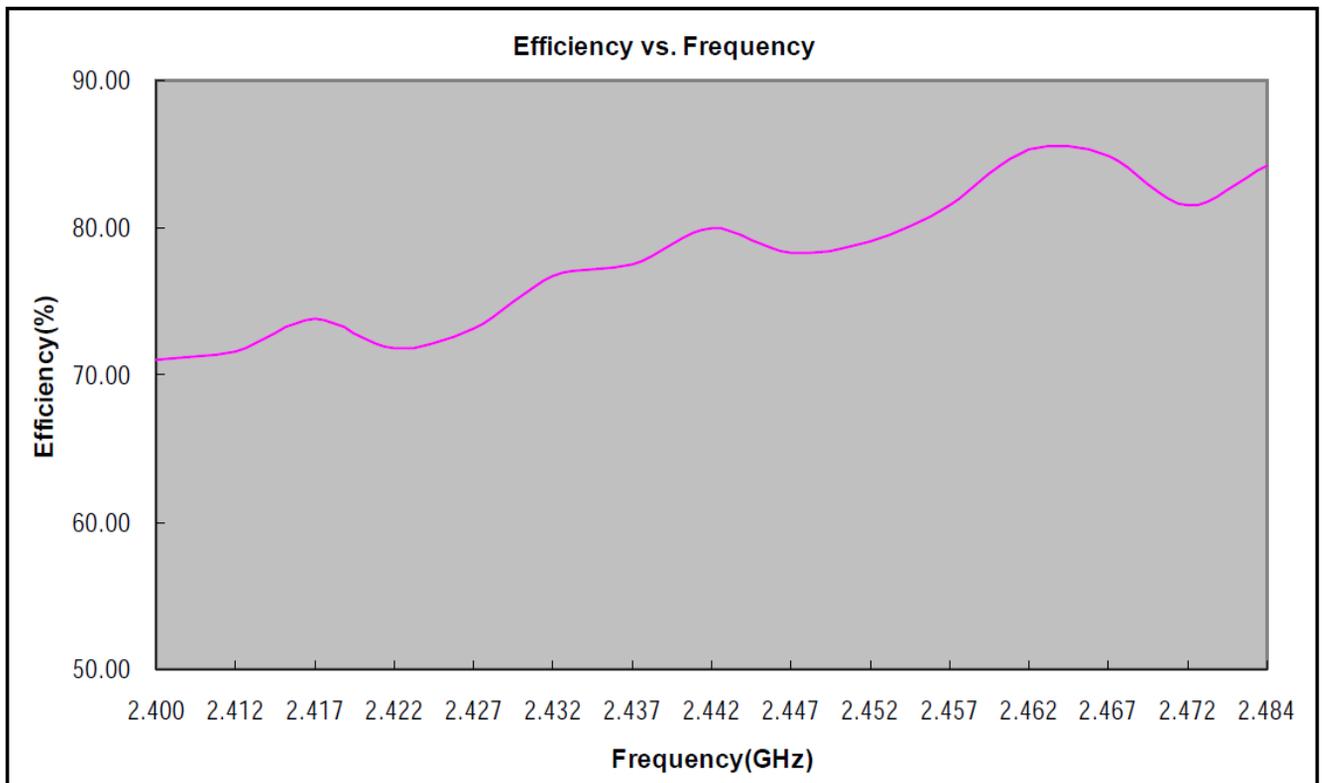
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3D Efficiency Table

Frequency(GHz)	2.400	2.412	2.417	2.422	2.427	2.432	2.437	2.442	2.447	2.452	2.457	2.462	2.467	2.472	2.484
Efficiency(dB)	-1.49	-1.45	-1.32	-1.44	-1.36	-1.15	-1.11	-0.97	-1.06	-1.02	-0.89	-0.69	-0.71	-0.89	-0.75
Efficiency(%)	70.96	71.61	73.79	71.78	73.11	76.74	77.45	79.98	78.31	79.10	81.51	85.26	84.83	81.51	84.20
Gain(dBi)	2.11	2.21	2.34	2.26	2.33	2.49	2.52	2.68	3.07	3.21	3.50	3.73	3.69	3.39	3.42

3D Efficiency vs. Frequency

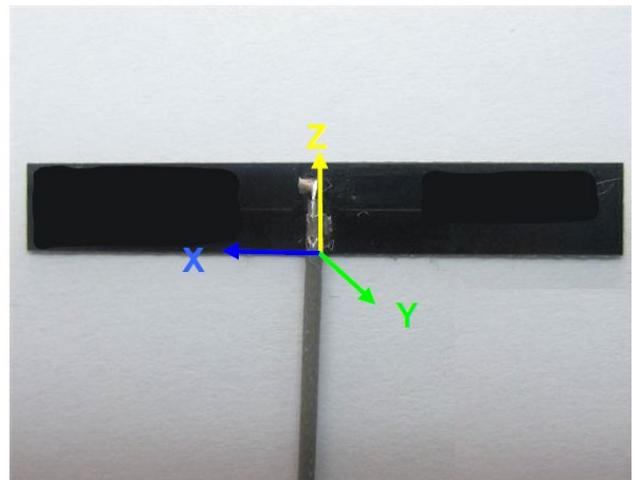
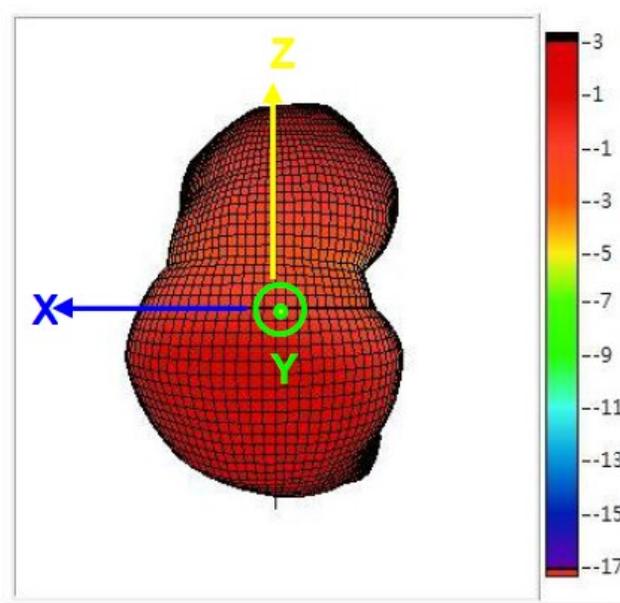
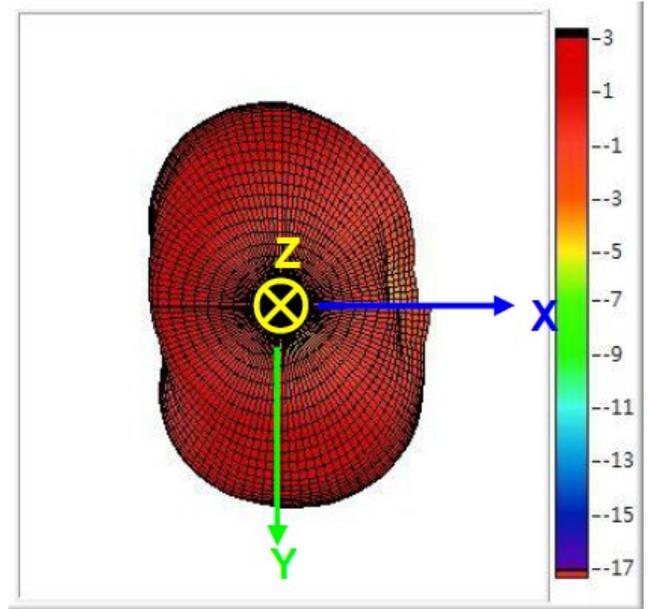
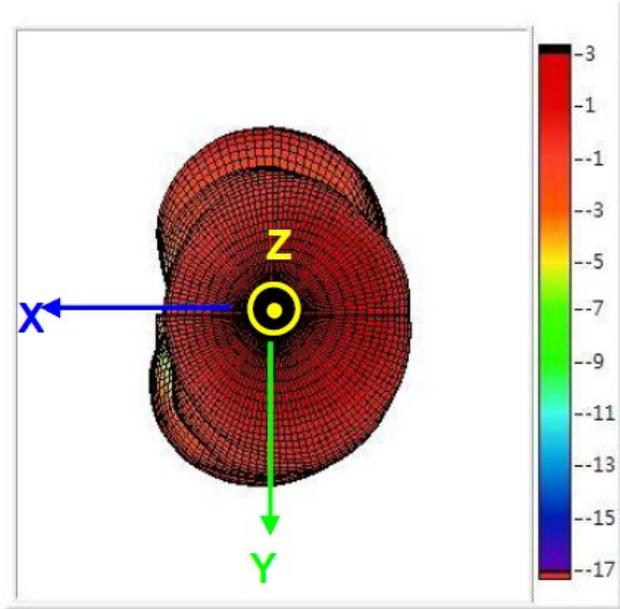


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4900 ~ 5900 MHz Band
3D Gain Pattern @ 5150 MHz (unit: dBi)

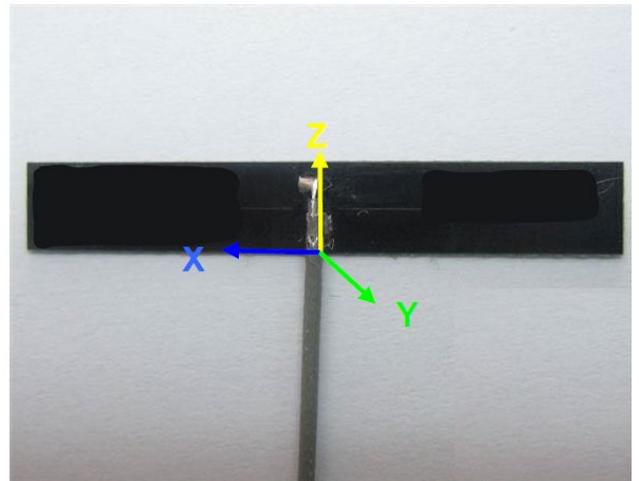
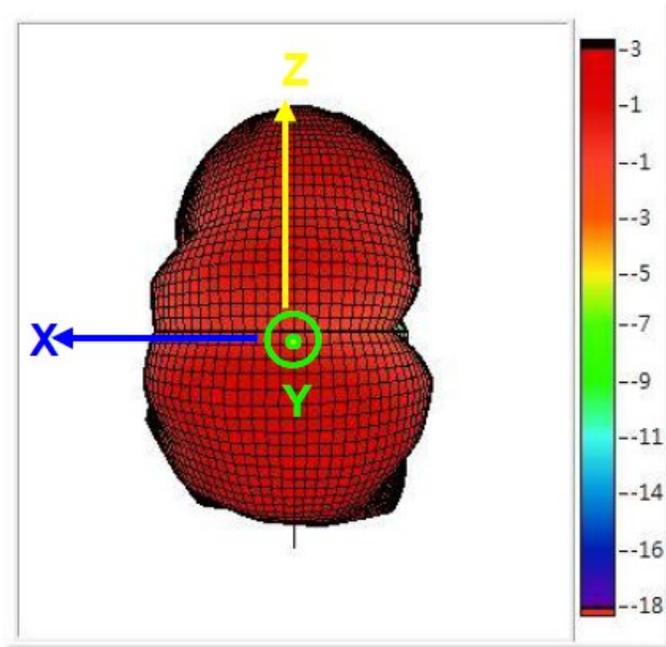
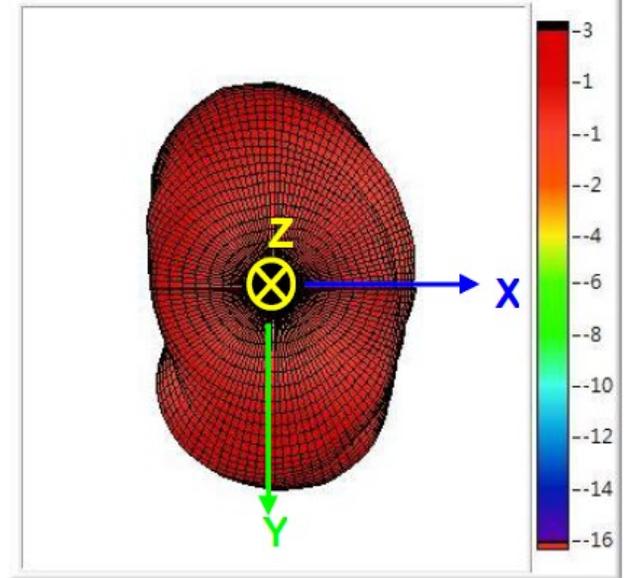
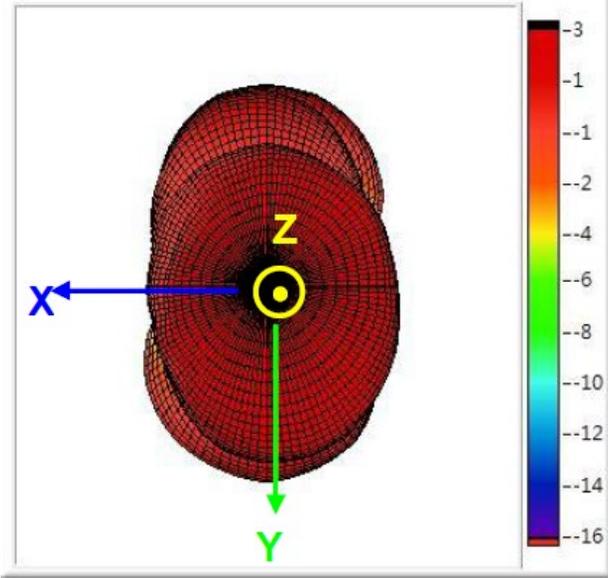


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3D Gain Pattern @ 5350 MHz (unit: dBi)

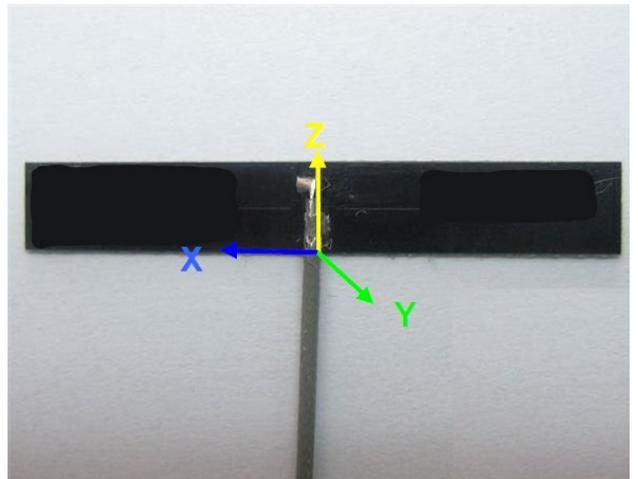
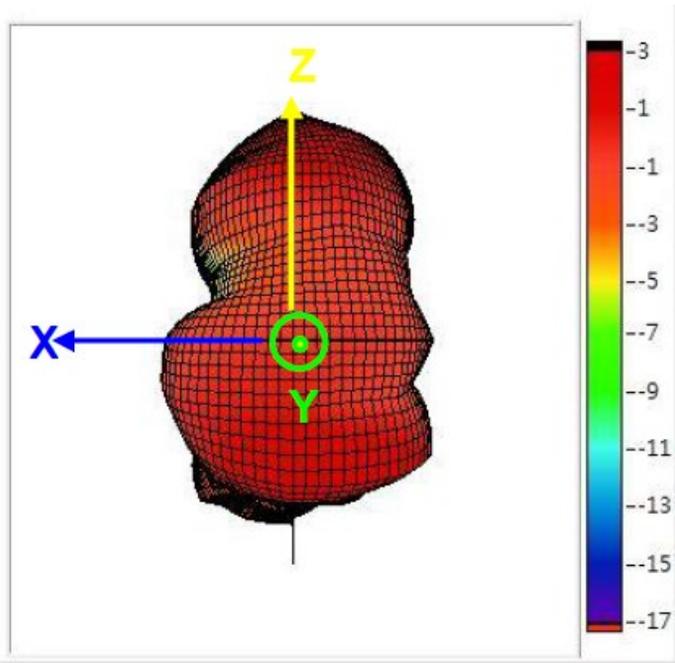
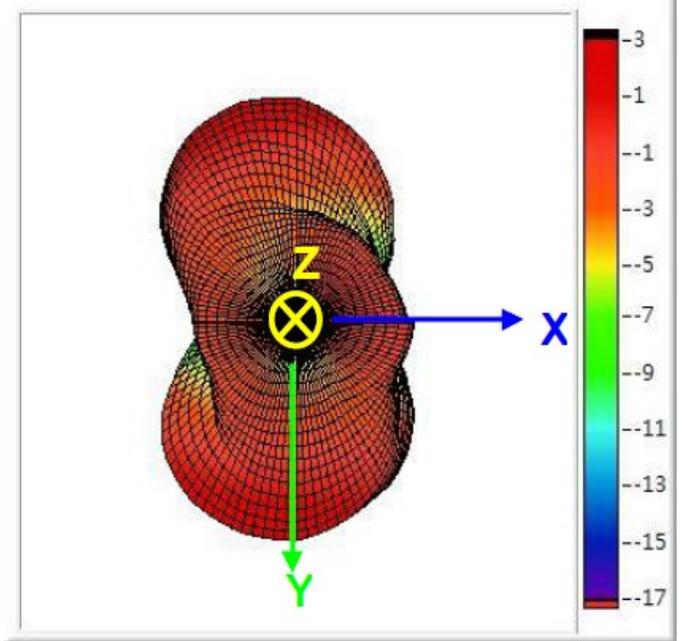
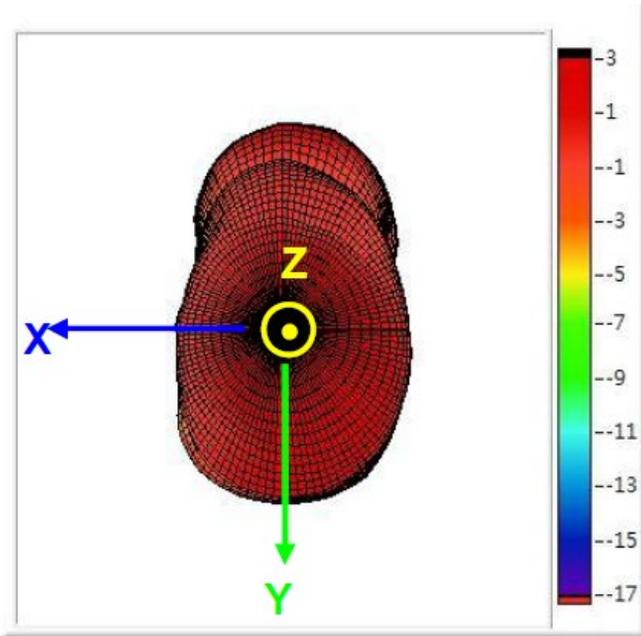


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3D Gain Pattern @ 5700 MHz (unit: dBi)

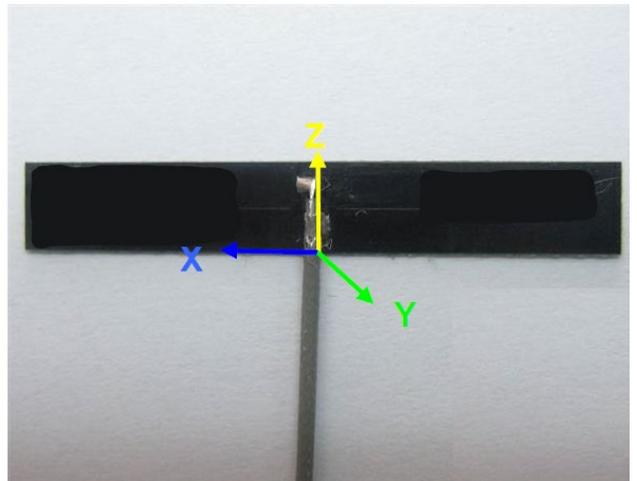
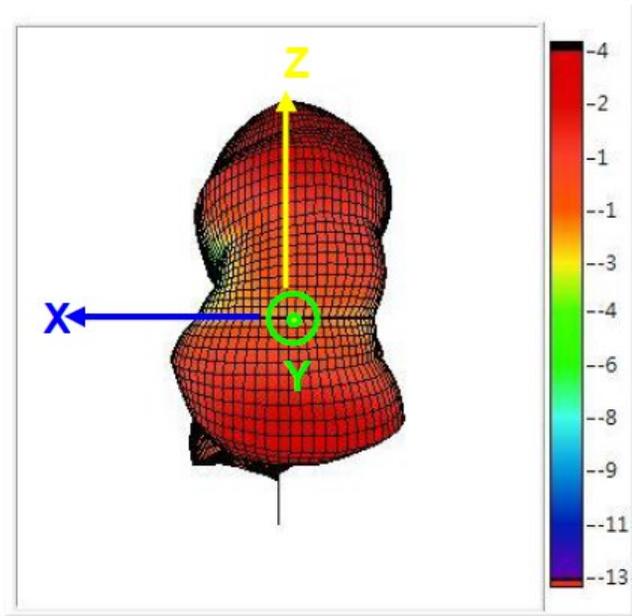
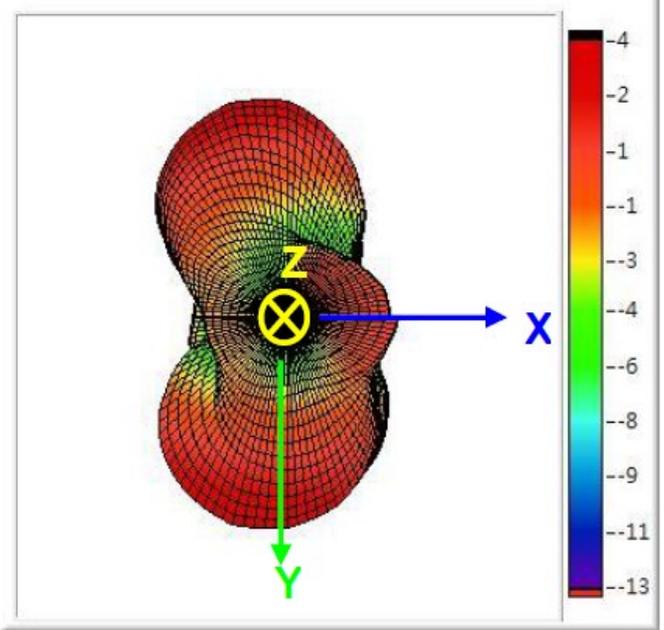
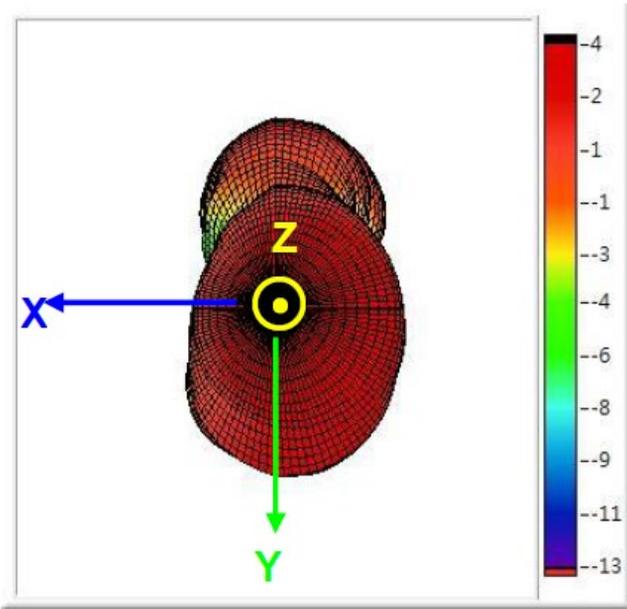


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3D Gain Pattern @ 5850 MHz (unit: dBi)





3D Efficiency Table

Frequency(GHz)	4.900	4.950	5.000	5.050	5.100	5.150	5.200	5.250	5.300	5.350	5.400
Efficiency(dB)	-1.02	-1.25	-1.45	-1.41	-1.44	-1.15	-0.97	-1.07	-1.11	-0.66	-0.99
Efficiency(%)	79.07	74.99	71.61	72.28	71.78	76.74	79.98	78.10	77.50	85.95	79.62
Gain(dBi)	3.23	2.74	2.30	2.56	2.83	3.20	3.46	3.72	3.30	3.39	3.36

Frequency(GHz)	5.450	5.500	5.550	5.600	5.650	5.700	5.750	5.800	5.850	5.900
Efficiency(dB)	-1.81	-1.87	-1.41	-1.26	-1.93	-1.85	-1.53	-1.33	-0.80	-1.23
Efficiency(%)	65.92	65.01	72.28	74.82	64.09	65.37	70.31	73.62	83.11	75.34
Gain(dBi)	2.47	2.97	3.49	3.79	2.60	3.06	3.74	3.91	5.18	3.98

3D Efficiency vs. Frequency

