

# DRA2G5GD002 Specification

## 5dBi Dual band Dipole Antenna

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### 1. Feature

- \* External type dipole antenna
- \* 2.4GHz/5GHz of frequency
- \* SMA Plug interface
- \* Plastic rod of black
- \* RoHS compliance

### 2. Application

- \* 2.4GHz/5GHz Wireless Communication
- \* WLAN device, WLAN Router, e.g., AP, PIC Wireless Card

### 3. Description

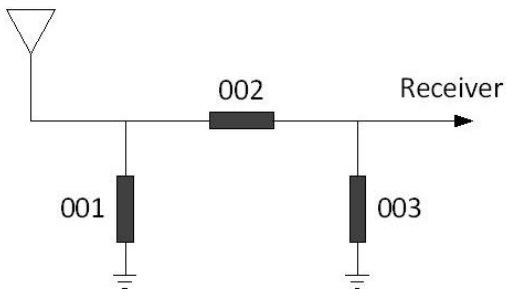
This miniature antenna is designed for 2.4GHz/5GHz applications and can be easily built-in portable devices with MHF processes. It has excellent stability and sensitivity to consistently provide high signal reception efficiency.

### 4. General Data

<b>Product Name</b>	5dBi Dual band Dipole Antenna
<b>Part No.</b>	DRA2G5GD002
<b>Frequency</b>	2.4~2.5GHz&5.15~5.85GHz
<b>V.S.W.R</b>	≤2.0
<b>Gain (dBi)</b>	2.4GHz@3.0dBi 5GHz@5.0dBi
<b>Polarization</b>	Linear, Vertical
<b>Storage Temp</b>	-10℃~+70℃
<b>Operating Temperature</b>	-10℃~+60℃
<b>Impedance with Matching</b>	50 Ω
<b>Weight</b>	21.5 g
<b>Antenna Type</b>	SMA PLUG
<b>Dimension</b>	L218.5 X φ 13 (mm)

## 5. Typical Electrical Characteristics

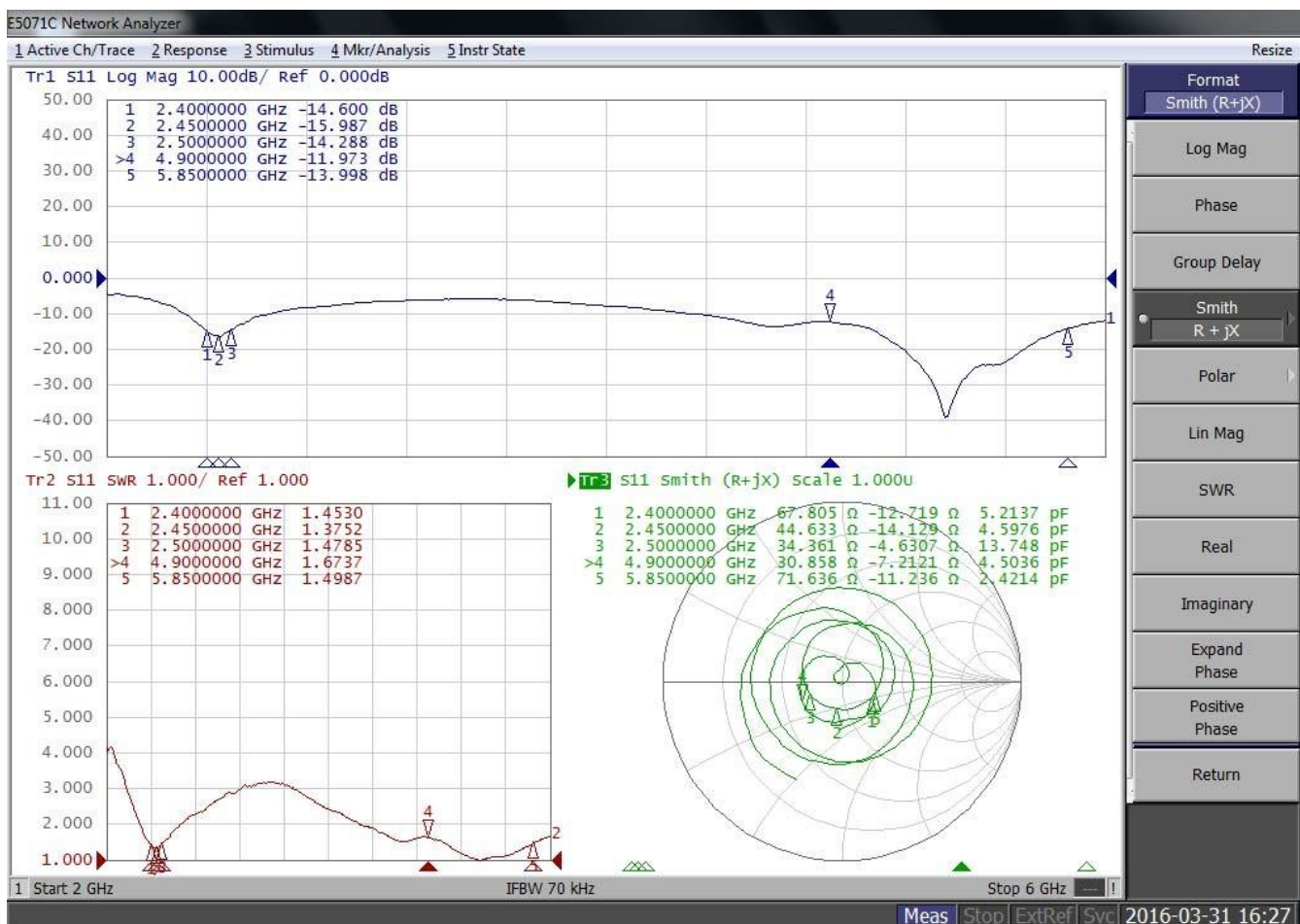
- Recommend Matching Circuit



Reference:

001=(N/A)  
002=0 Ω  
003=(N/A)

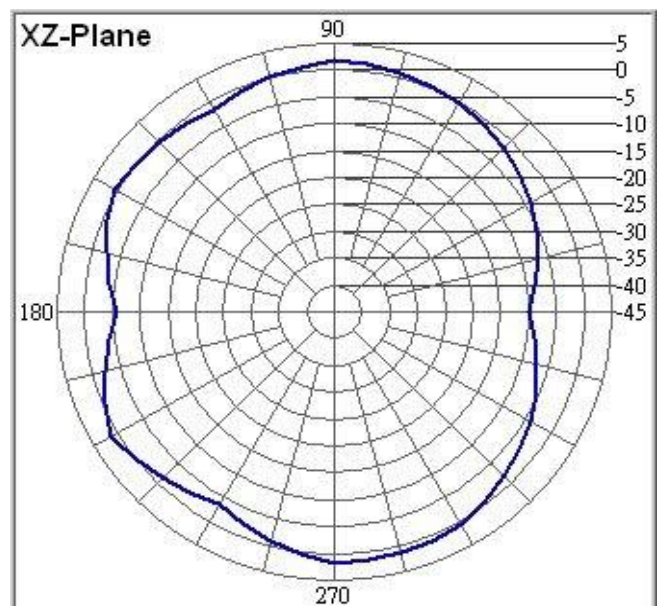
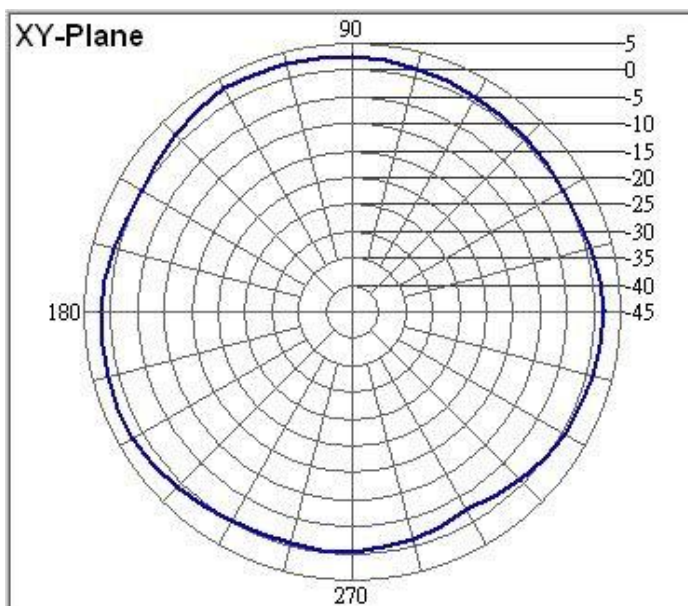
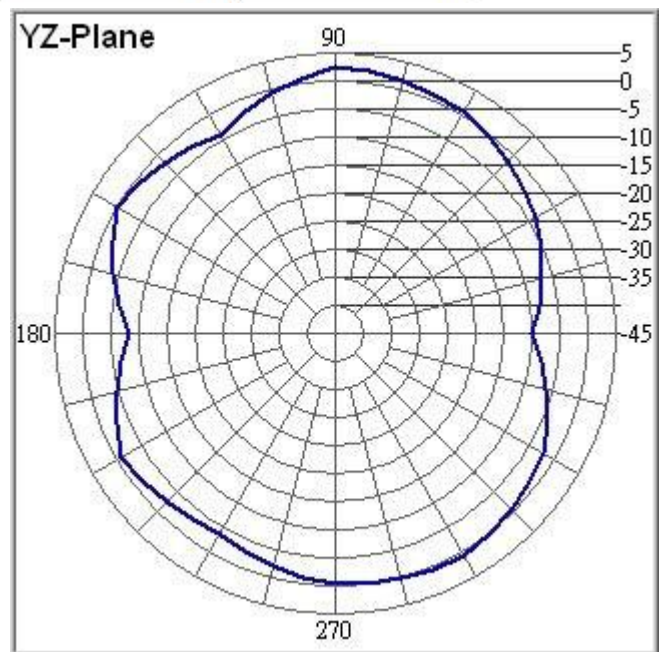
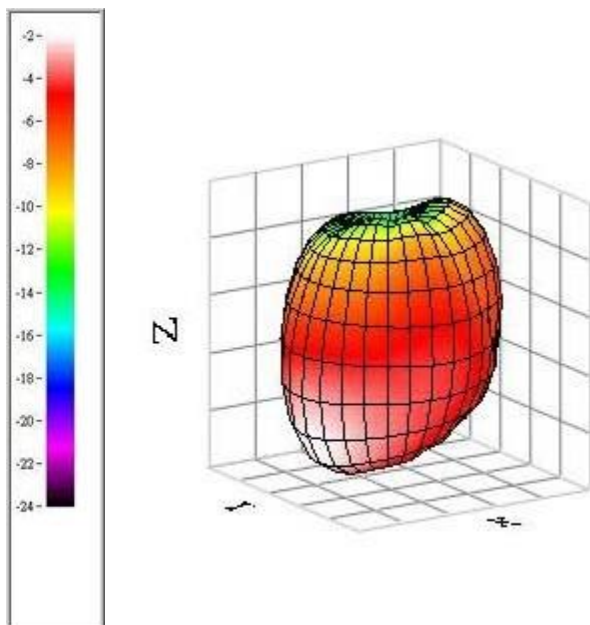
- Return loss, VSWR& Smith chart



➤ Gain (dBi)

Frequency = 2400 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.533257	1.847384	2.388772
V-Pol. (Peak.)	-7.394141	-7.528106	-9.612384
H+V. (Peak.)	2.953834	1.910461	2.457024
H-Pol. (Avg.)	1.017205	-0.925111	-1.617949
V-Pol. (Avg.)	-14.255253	-13.671993	-12.570356
H+V. (Avg.)	1.144312	-0.700305	-1.282473
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	120	270	90
V-Pol. (Peak.)	120	180	60
H+V. (Peak.)	120	270	90

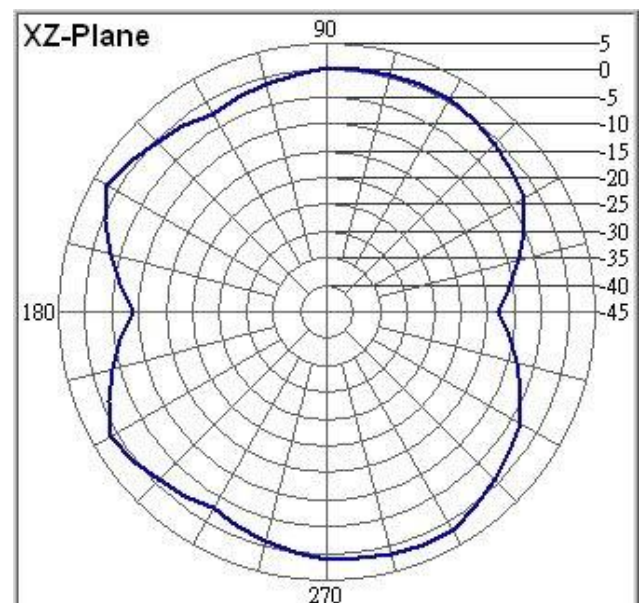
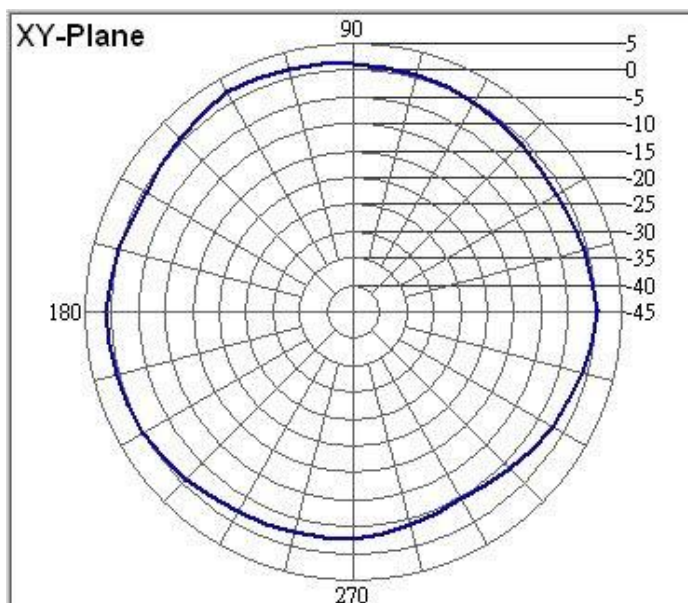
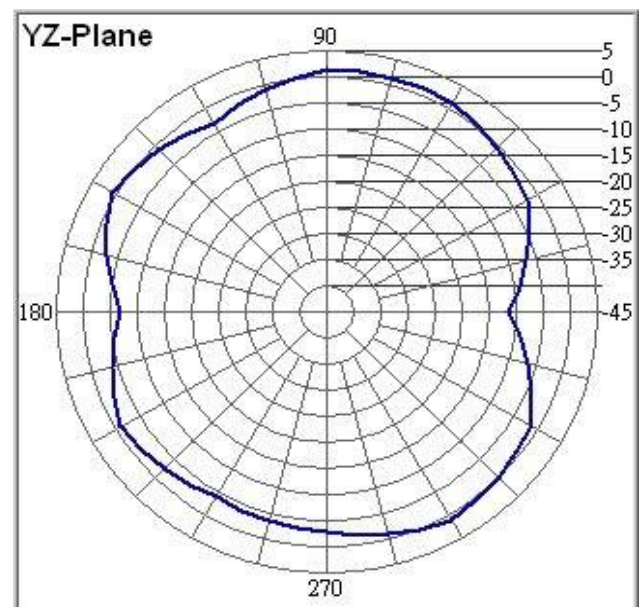
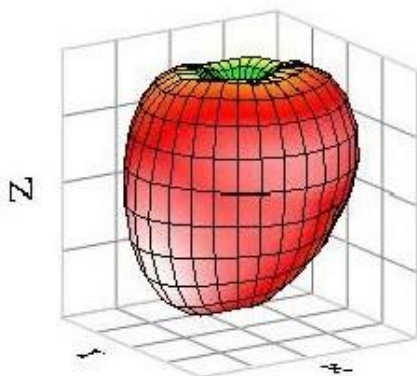
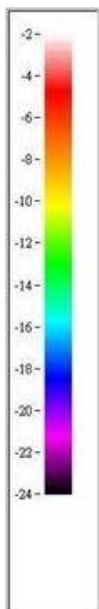


High performance product for you

➤ Gain (dBi)

Frequency = 2450 MHz

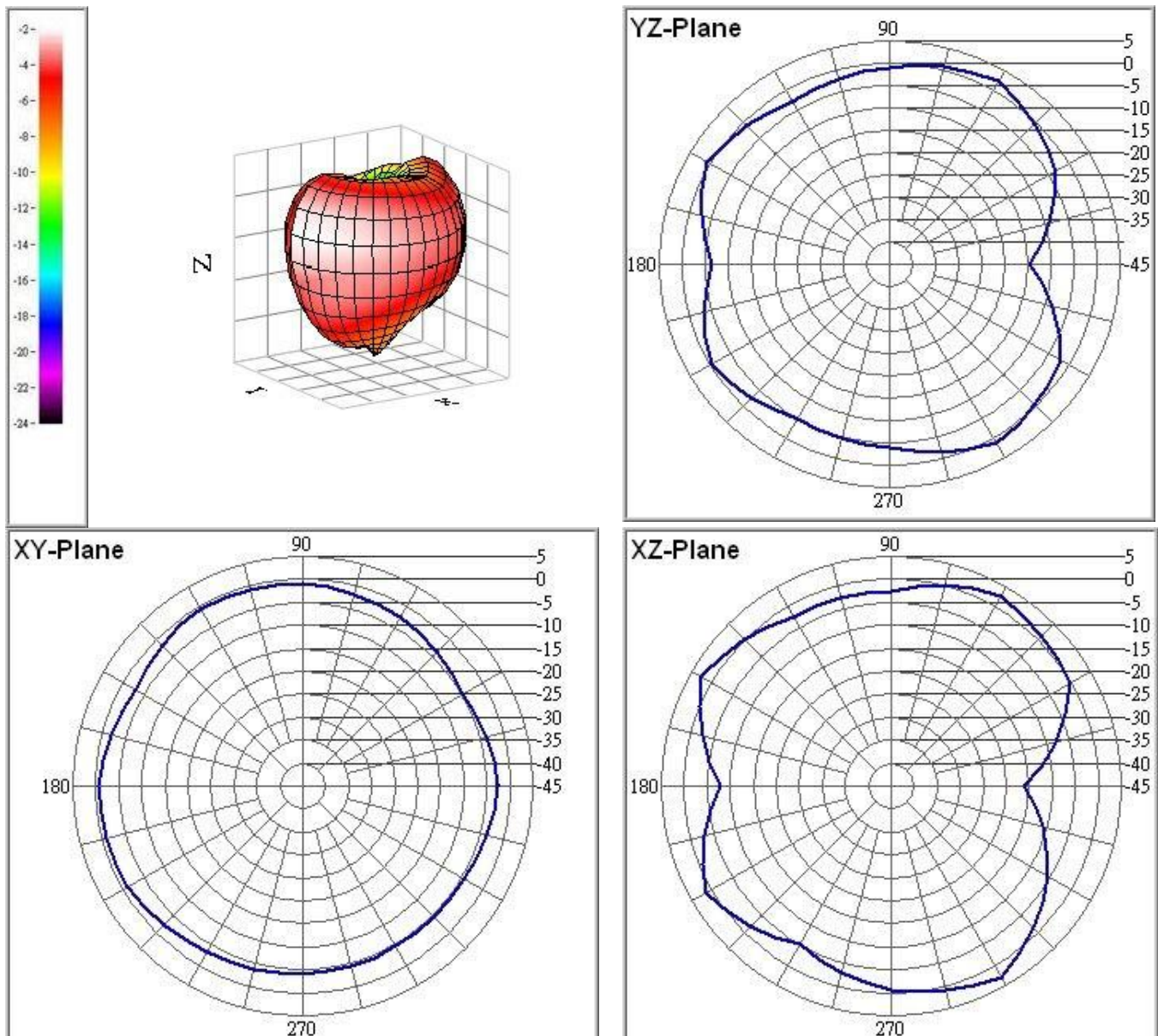
dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	1.888438	2.06223	1.141488
V-Pol. (Peak.)	-9.899412	-6.802034	-7.578233
H+V. (Peak.)	2.167047	2.379037	1.342182
H-Pol. (Avg.)	-0.46296	-0.795769	-1.804188
V-Pol. (Avg.)	-16.023059	-12.487565	-10.848453
H+V. (Avg.)	-0.343888	-0.51113	-1.294145
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	120	300	90
V-Pol. (Peak.)	120	150	300
H+V. (Peak.)	120	150	90



High performance product for you

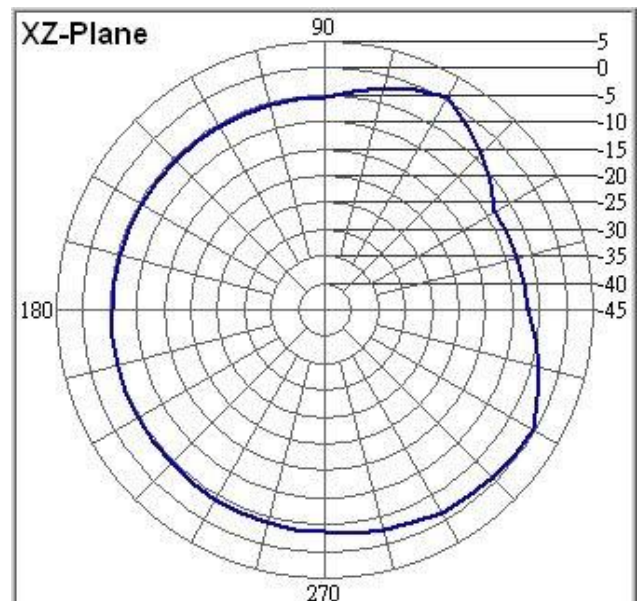
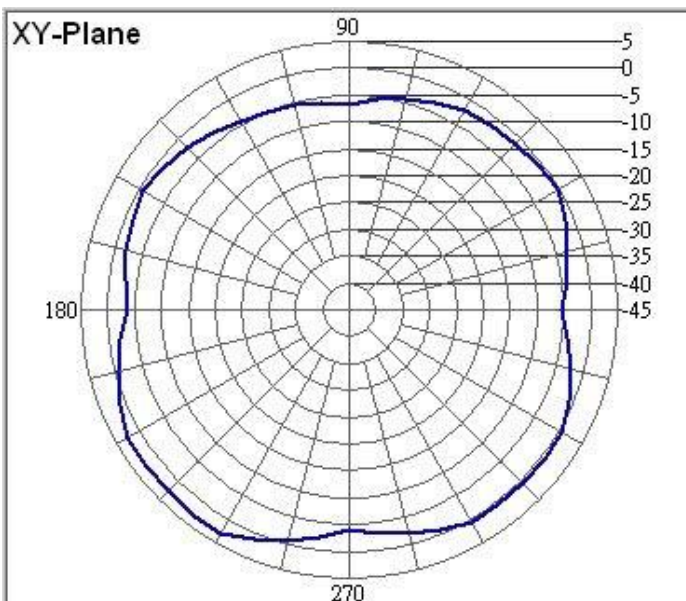
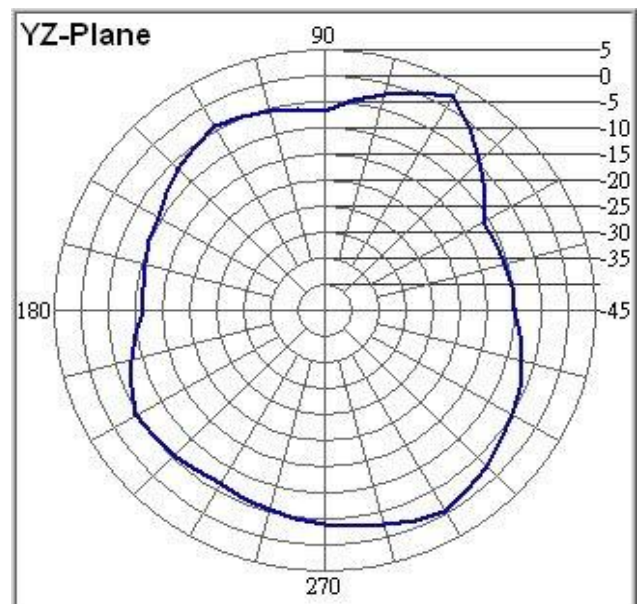
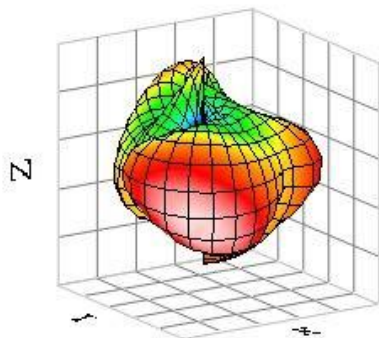
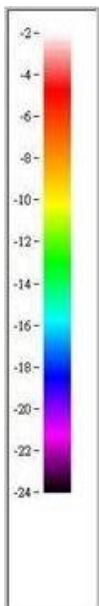
- Gain (dBi)  
Frequency = 2500 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	-0.694667	2.862597	2.215434
V-Pol. (Peak.)	-11.087523	-7.270118	-7.499572
H+V. (Peak.)	-0.315021	3.006369	2.352811
H-Pol. (Avg.)	-2.600478	-0.771349	-1.903437
V-Pol. (Avg.)	-16.759422	-11.480948	-11.744287
H+V. (Avg.)	-2.436914	-0.417347	-1.474798
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	120	300	60
V-Pol. (Peak.)	120	210	300
H+V. (Peak.)	120	300	60



➤ Gain (dBi)  
Frequency = 5150 MHz

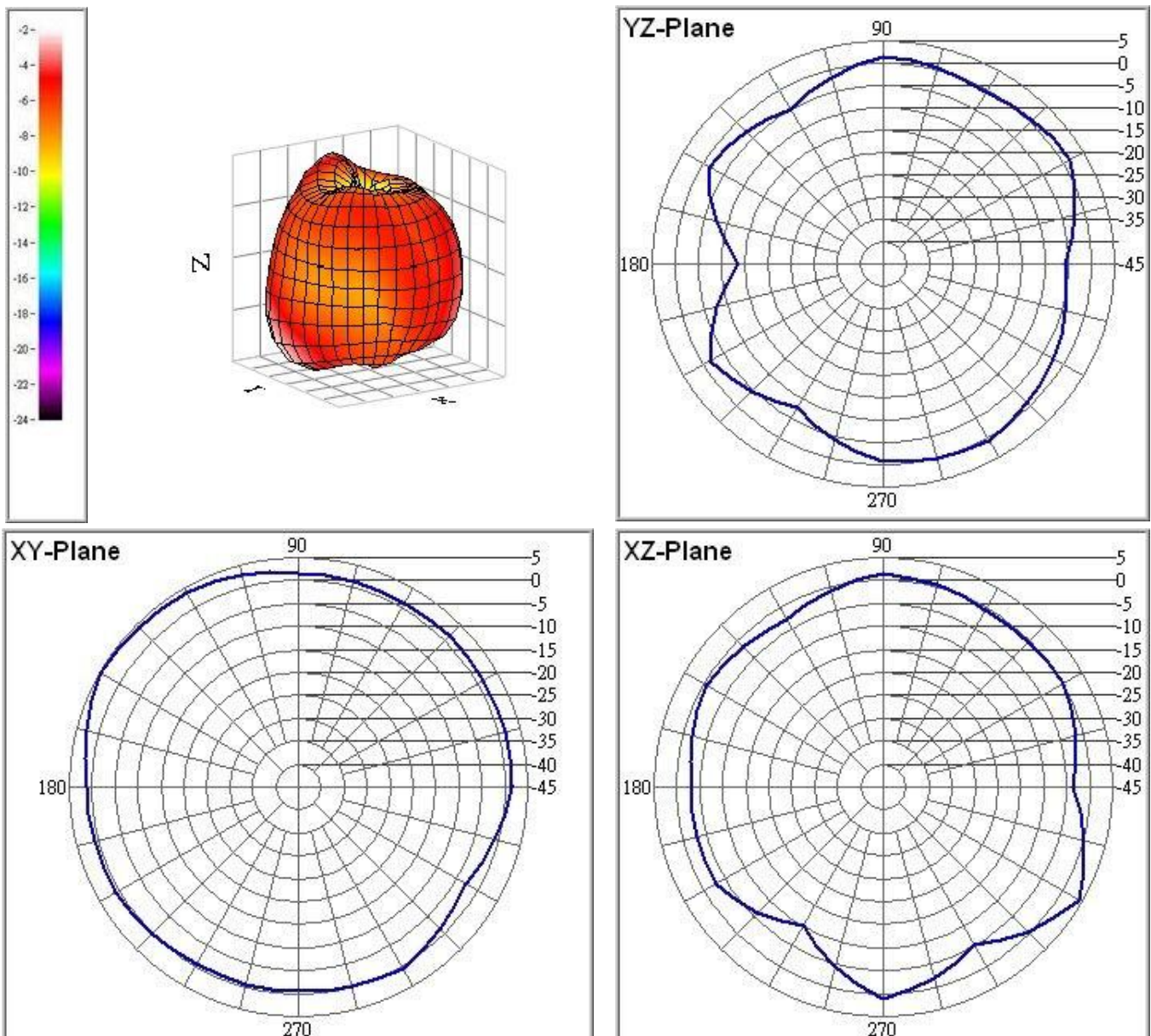
dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.907052	0.593259	2.332601
V-Pol. (Peak.)	-6.618532	-6.104913	-9.010549
H+V. (Peak.)	3.041484	0.819128	2.460234
H-Pol. (Avg.)	-0.977351	-4.049478	-4.62191
V-Pol. (Avg.)	-11.861793	-11.83227	-11.792595
H+V. (Avg.)	-0.636786	-3.380193	-3.859743
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	240	60	60
V-Pol. (Peak.)	150	300	270
H+V. (Peak.)	240	60	60



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➤ Gain (dBi)  
Frequency = 5800 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	4.597415	4.137565	1.599898
V-Pol. (Peak.)	-4.172994	-3.075796	-6.707426
H+V. (Peak.)	4.716626	4.3295	1.726938
H-Pol. (Avg.)	1.177323	-1.259963	-2.081868
V-Pol. (Avg.)	-9.54566	-8.657941	-10.400245
H+V. (Avg.)	1.530277	-0.533587	-1.48515
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	150	330	30
V-Pol. (Peak.)	120	150	90
H+V. (Peak.)	150	330	30



High performance product for you

➤ Efficiency (%)

Total/ Frequency	Ant. Port	Tot.Rad. Pwr. (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain(dBi)
2400	0	-0.551292	2.953834	3.505127	-0.551292	88.078679	2.953834
2437	0	-0.417783	2.47196	2.889744	-0.417783	90.828397	2.47196
2442	0	-0.569781	2.30174	2.871521	-0.569781	87.704499	2.30174
2450	0	-0.651024	2.379037	3.030061	-0.651024	86.079078	2.379037
2484	0	-0.809978	2.326679	3.136657	-0.809978	82.985493	2.326679
2500	0	-0.763333	3.006369	3.769702	-0.763333	83.881597	3.006369
5150	0	-1.769298	3.596862	5.36616	-1.769298	66.538074	3.596862
5250	0	-0.420633	4.954602	5.375236	-0.420633	90.768819	4.954602
5260	0	-0.038325	5.863335	5.90166	-0.038325	99.121418	5.863335
5350	0	-1.005398	5.479673	6.485071	-1.005398	79.334154	5.479673
5440	0	-0.627549	5.106631	5.73418	-0.627549	86.545614	5.106631
5470	0	-0.826488	4.953849	5.780337	-0.826488	82.670628	4.953849
5530	0	0.128241	5.460569	5.332329	0.128241	102.996883	5.460569
5620	0	-0.490127	5.047398	5.537524	-0.490127	89.327945	5.047398
5710	0	-1.29739	4.350057	5.647447	-1.29739	74.175586	4.350057
5725	0	-1.596735	3.540759	5.137495	-1.596735	69.235121	3.540759
5800	0	0.126234	5.04431	4.918076	0.126234	102.949298	5.04431
5875	0	-0.545577	3.866189	4.411766	-0.545577	88.194661	3.866189
5890	0	-1.236825	4.060992	5.297817	-1.236825	75.217263	4.060992

6. Dimension

