



Oscar 40

2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA



Key Features

- 2G/3G/4G/5G/Dual Band WiFi frequency bands
- Compact size
- Wall or pole mount

General Description

The Oscar 40 is a great antenna covering many popular frequencies in use today. Its radome is UV and water resistant making it a great outdoor antenna.

Suitable for discreet applications where a longer mast type is undesirable and out-performs many of the larger variants.

It is fitted with an aluminium bracket for wall mounting and supplied with a clamp for fitting to a standard mast.

Supplied as standard with an SMA male connector and 5 or 10 m of cable. Alternative connectors or cable lengths can be specified for short run volume orders.

Additional Considerations

- RFID, ISM, WiFi bridging
- Public Wireless systems
- Covers cellular/PCS (US and worldwide)

O Wall/Pole	3G UMTS	4G LTE	5G LTE
LTE Cat M	LTE NB IoT	WLAN 2400	ISM 2450
BLE Bluetooth	ZB Zigbee	WLAN 5800	



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Electrical Specifications

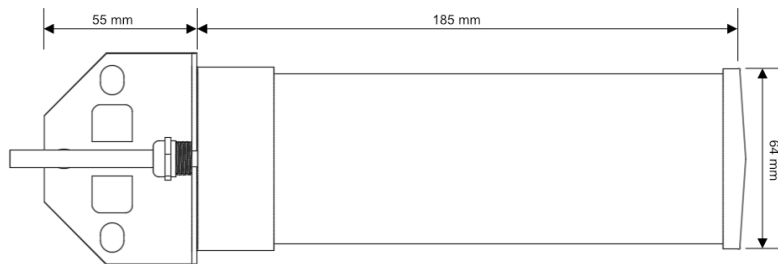
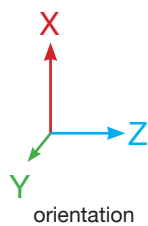
Impedance:	50 Ohm
Max Input Power:	50 W
Polarization:	Vertical, Linear
Ground Plane Independent:	Yes

Environmental Specification

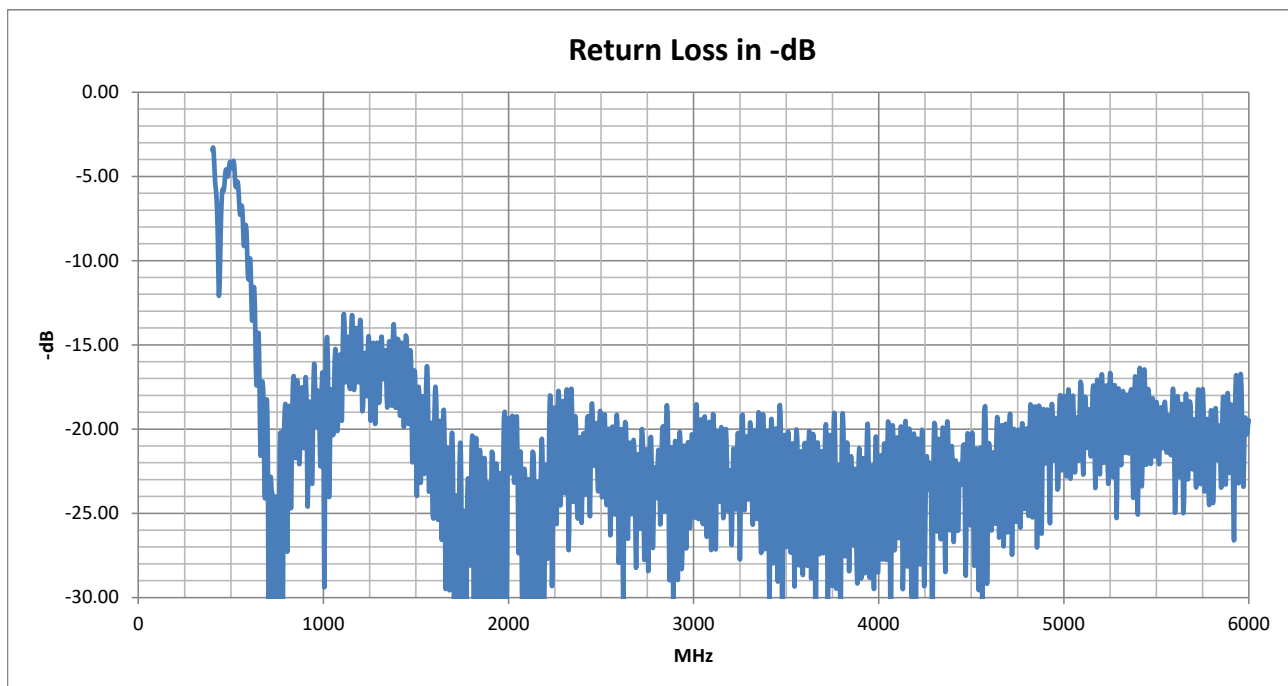
Operating Temperature	-40 °C ~ +70 °C
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Mechanical Specifications

Dimensions:	L185 x Ø 60 mm
Weight:	400 g
Connector:	SMA Male
Radiator:	Aluminium
Radome:	PVC, UV protection
Lightning protection:	Direct ground
Wind loading:	180 km/h



Return Loss tested with 5 m cable

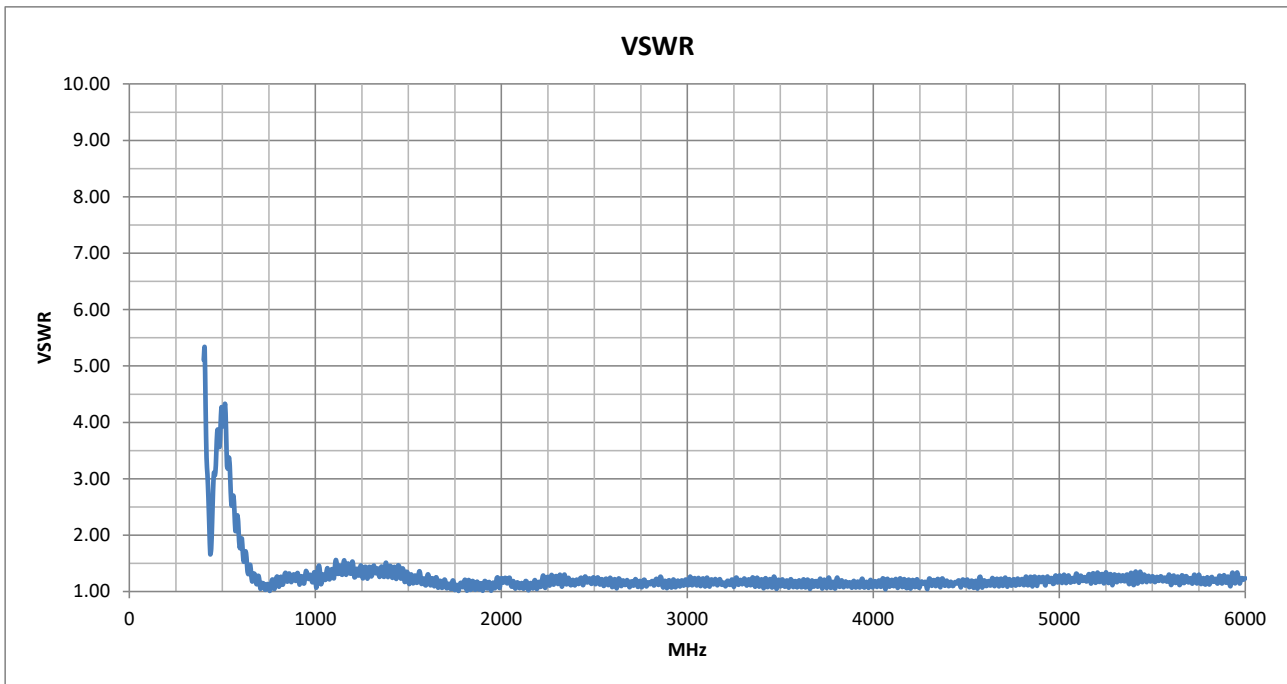




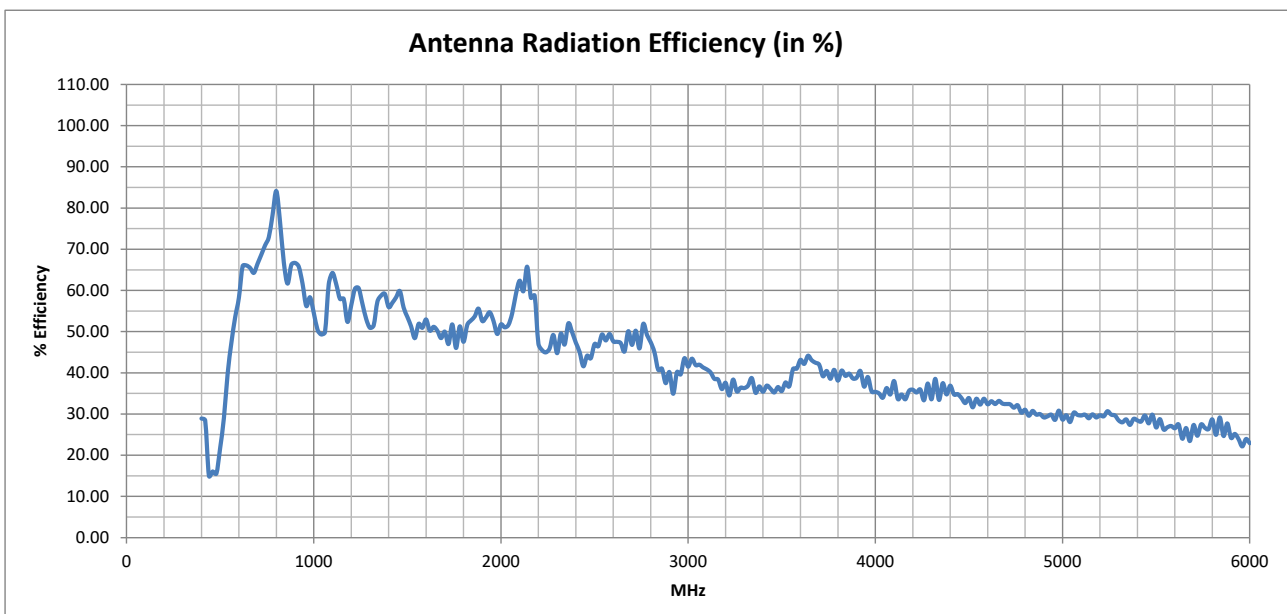
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VSWR tested with 5 m cable



Radiation Efficiency tested with 5 m cable





LTE/5G Band Coverage

LTE, CAT-M/5G Bands	NB-IoT Band	Regional Coverage	Uplink	Downlink	Avg Efficiency % over band	Max VSWR over Band
1/n1	B1	Europe / Asia	1920-1980 MHz	2110-2170 MHz	52.55 / 60.99 ●	1.25 / 1.19
2/n2	B2	North America/Latin America/Caribbean	1850-1910 MHz	1930-1990 MHz	53.61 / 52.39 ●	1.19 / 1.25
3/n3	B3	Europe/Africa/Asia/Oceania	1710-1785 MHz	1805-1880 MHz	48.93 / 52.24 ●	1.20 / 1.21
4	B4	North America/Latin America/Caribbean	1710-1755 MHz	2110-2155 MHz	48.69 / 61.55 ●	1.20 / 1.19
5/n5	B5	Country Specific	824-849 MHz	869-894 MHz	68.35 / 64.85 ●	1.33 / 1.30
7/n7		Latin America/Europe/Asia +	2500-2570 MHz	2620-2690 MHz	48.01 / 47.36 ●	1.25 / 1.23
8/n8	B8	Europe / Asia +	880-915 MHz	925-960 MHz	66.22 / 61.22 ●	1.33 / 1.37
11	B11	Country Specific	1427.9-1447.9 MHz	1475.9-1495.9 MHz	58.40 / 56.42 ●	1.47 / 1.35
12/n12	B12	North America/Caribbean +	699-716 MHz	729-746 MHz	66.50 / 70.87 ●	1.28 / 1.14
13/n13	B13	North America/Caribbean +	777-787 MHz	746-756 MHz	78.48 / 71.95 ●	1.24 / 1.13
14/n14	B14	Country Specific	788-798 MHz	758-768 MHz	81.24 / 74.08 ●	1.27 / 1.22
17	B17	North America/Caribbean +	704-716 MHz	734.746 MHz	67.62 / 70.87 ●	1.18 / 1.13
18/n18	B18	Country Specific	815-830 MHz	860-875 MHz	75.84 / 63.94 ●	1.27 / 1.32
19	B19	Country Specific	830-845 MHz	875-890 MHz	68.35 / 64.85 ●	1.33 / 1.30
20/n20	B20	Europe/Africa +	832-862 MHz	791-821 MHz	67.82 / 76.47 ●	1.33 / 1.30
21		Country Specific	1447.9-1462.9 MHz	1495.9-1510.9 MHz	58.01 / 53.57 ●	1.47 / 1.34
25/n25	B25	Country Specific	1850-1915 MHz	1525-1559 MHz	53.61 / 50.53 ●	1.19 / 1.36
26/n26	B26	Country Specific	814-849 MHz	859-894 MHz	72.30 / 76.59 ●	1.33 / 1.32
28/n28	B28	Latin America/Europe/Asia +	703-748 MHz	758-803 MHz	70.87 / 76.59 ●	1.18 / 1.27
29/n29		Country Specific	-	717-728 MHz	68.73 ●	1.16
30/n30		Country Specific	2305-2315 MHz	2350-2360 MHz	47.16 / 49.44 ●	1.30 / 1.25
31	B31	Country Specific	452.5-457.5 MHz	462.5-467.5 MHz	15.52 / 15.81 ⓧ	3.11 / 3.68
32		Country Specific	-	1452-1496 MHz	56.90 ●	1.45
38/n38		Europe +	2570-2620 MHz		48.12 ●	1.25
39/n39		Country Specific	1880-1920 MHz		53.88 ●	1.19
40/n40		Asia +	2300-2400 MHz		48.40 ●	1.30
41/n41		Country Specific	2496-2690 MHz		47.34 ●	1.26
42		Country Specific	3400-3600 MHz		37.75 ●	1.27
43		Country Specific	3600-3800 MHz		41.27 ●	1.25
46/n46		Country Specific	5150-5925 MHz		27.50 ●	1.36
48/n48		Country Specific	3550-3700 MHz		41.74 ●	1.22
65/n65		Country Specific	1920-2010 MHz	2110-2200 MHz	52.17 / 58.67 ●	1.25 / 1.21
66/n66	B66	Country Specific	1710-1780 MHz	2110-2200 MHz	49.21 / 58.67 ●	1.20 / 1.21
71/n71	B71	Country Specific	663-698 MHz	617-652 MHz	65.42 / 63.92 ●	1.32 / 1.72

Table data for bands as detailed in 3GPP TS 36.101 & 38.101

● Usable Band

○ Adequate in good signal area

ⓧ Not Usable



5G Extended Table for Band Coverage

LTE/5G Band	NB-IoT Band	Uplink	Downlink	Avg Efficiency % over band	Max VSWR over Band
n24		1626.5 – 1660.5 MHz	1525 – 1559 MHz	50.55 / 50.53 ●	1.26 / 1.36
n34		2010 – 2025 MHz		51.48 ●	1.25
n47		5855 – 5925 MHz		25.81 ●	1.29
n50		1432 – 1517 MHz		55.99 ●	1.47
n51		1427 – 1432 MHz		57.68 ●	1.44
n53		2483.5 – 2495 MHz		45.27 ●	1.26
n67		738 – 758 MHz		70.87 ●	1.13
n70	B70	1695 – 1710 MHz	1995 – 2020 MHz	48.47 / 50.75 ●	1.22 / 1.25
n74		1427 – 1470 MHz	1475 – 1518 MHz	57.76 / 55.14 ●	1.47 / 1.35
n75		1432 – 1517 MHz		55.99 ●	1.47
n76		1427 – 1432 MHz		57.68 ●	1.44
n77		3300 – 4200 MHz		37.95 ●	1.27
n78		3300 – 3800 MHz		38.84 ●	1.27
n79		4400 – 5000 MHz		31.89 ●	1.29
n80		1710 – 1785 MHz		48.93 ●	1.20
n81		880 – 915 MHz		66.22 ●	1.33
n82		832 – 862 MHz		67.82 ●	1.33
n83		703 – 748 MHz		69.78 ●	1.18
n84		1920 – 1980 MHz		52.55 ●	1.25
n85	B85	698 – 716 MHz	728 – 746 MHz	66.50 / 70.87 ●	1.28 / 1.14
n86		1710 – 1780 MHz		49.21 ●	1.20
n89		824 – 849 MHz		68.35 ●	1.33
n90		2496 – 2690 MHz		47.34 ●	1.26
n91		832 – 862 MHz	1427 – 1432 MHz	67.82 / 57.68 ●	1.33 / 1.44
n92		832 – 862 MHz	1432 – 1517 MHz	67.82 / 55.99 ●	1.33 / 1.47
n93		880 – 915 MHz	1427 – 1432 MHz	66.22 / 57.68 ●	1.33 / 1.44
n94		880 – 915 MHz	1432 – 1517 MHz	66.22 / 55.99 ●	1.33 / 1.47
n95		2010 – 2025 MHz		51.48 ●	1.25
n96		5925 – 7125 MHz		unmeasured	
n97		2300 – 2400 MHz		48.40 ●	1.30
n98		1880 – 1920 MHz		53.88 ●	1.19
n99		1626.5 – 1660.5 MHz		50.55 ●	1.26

Table data for bands as detailed in 3GPP TS 38.101

● Usable Band ○ Adequate in good signal area × Not Usable

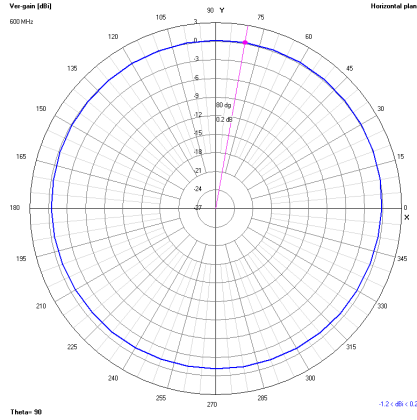


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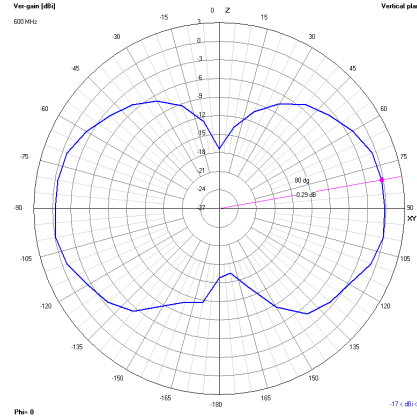
2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

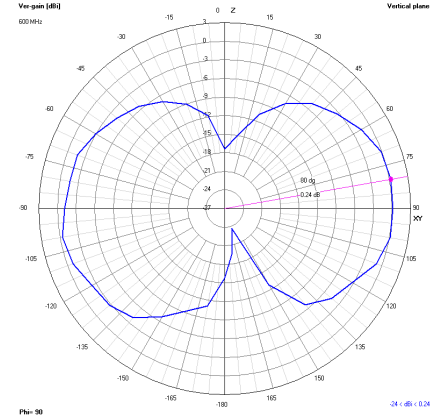
600 MHz XY



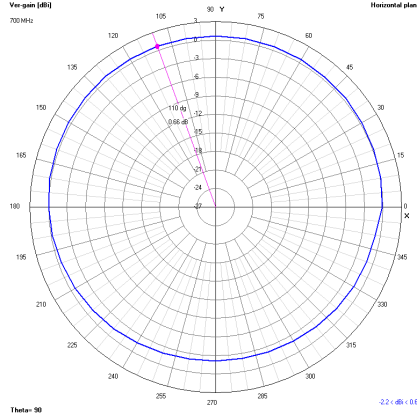
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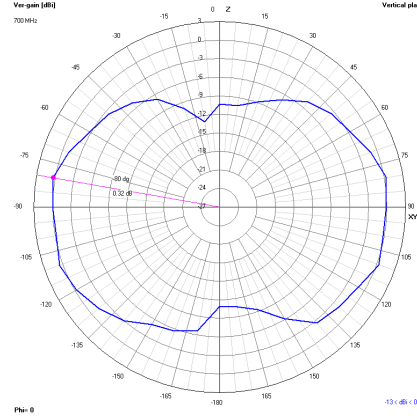
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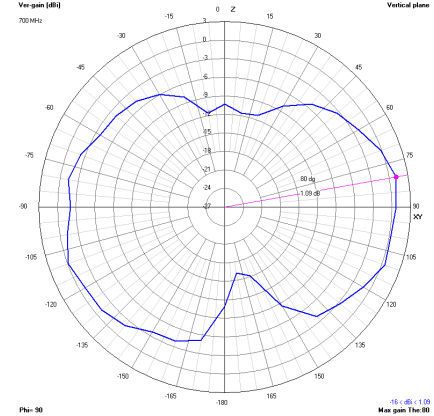
700 MHz XY



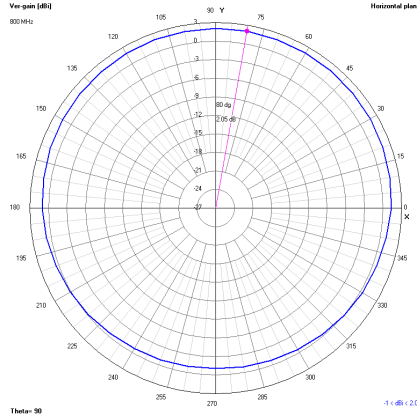
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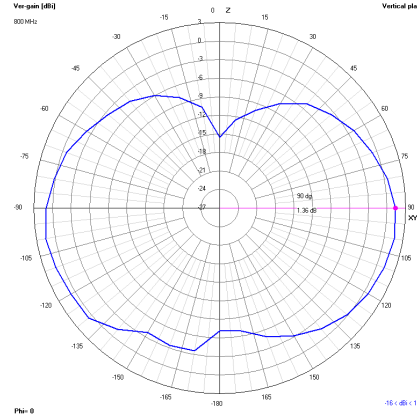
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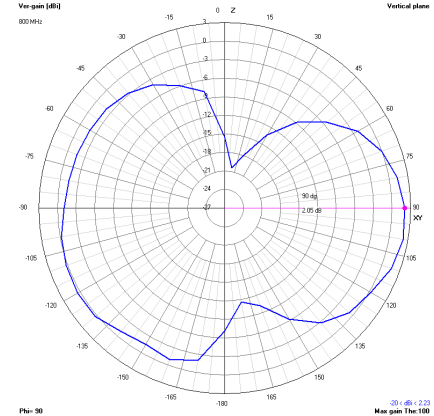
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XZ



YZ



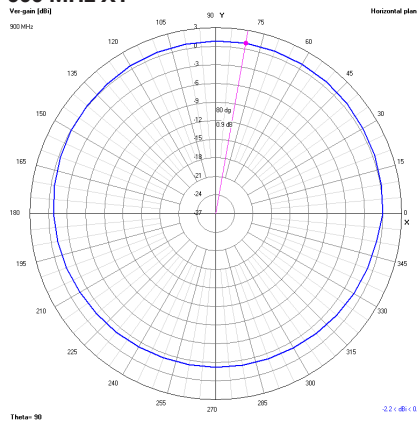


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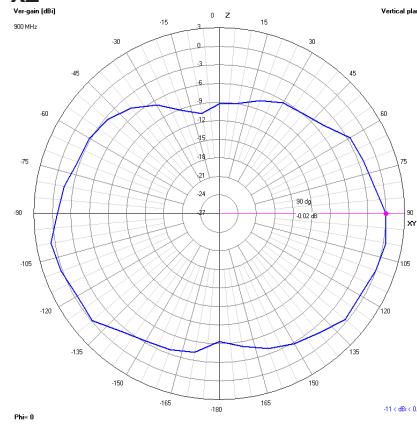
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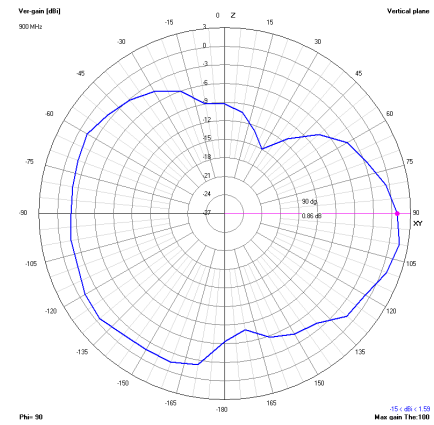
900 MHz XY



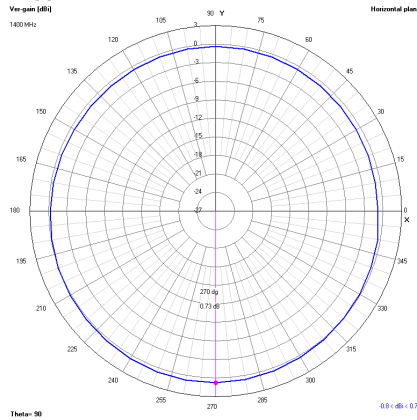
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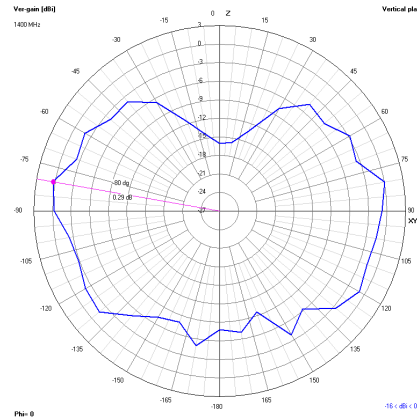
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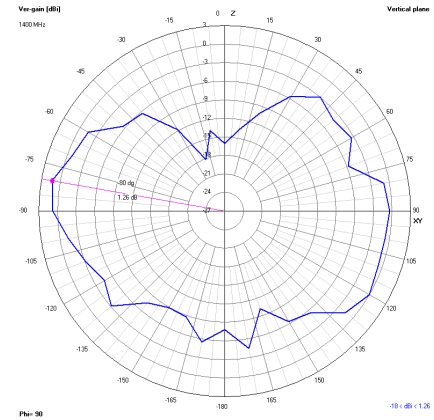
1400 MHz XY



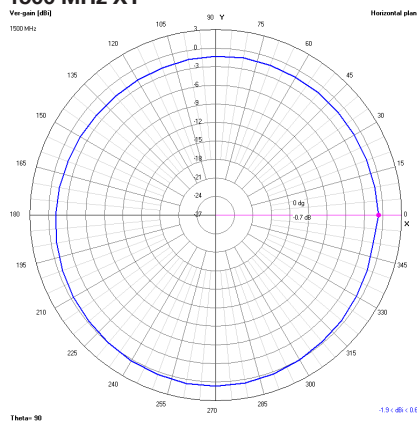
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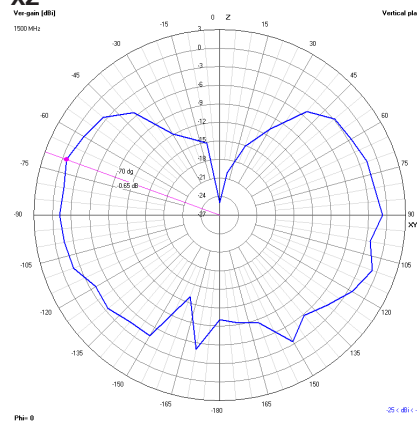
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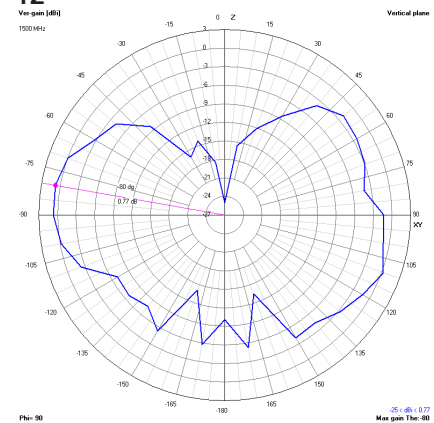
1500 MHz XY



XZ



YZ



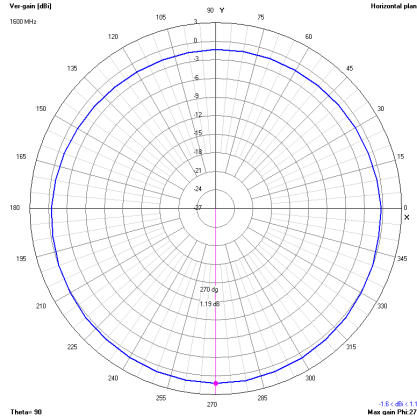


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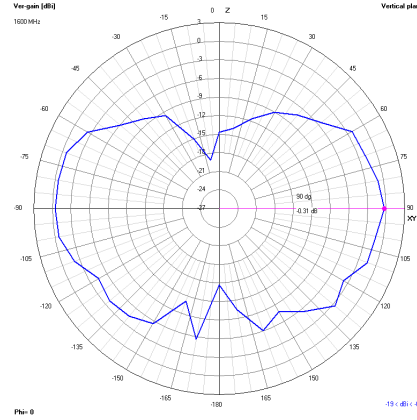
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Radiation Plots tested with 5 m cable

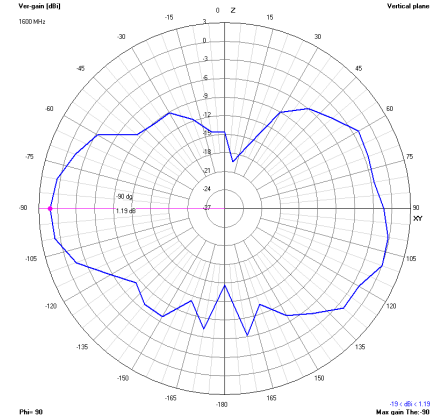
1600 MHz XY



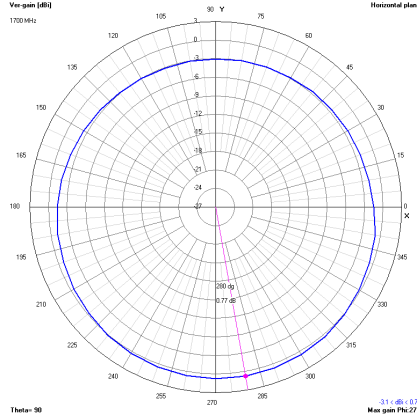
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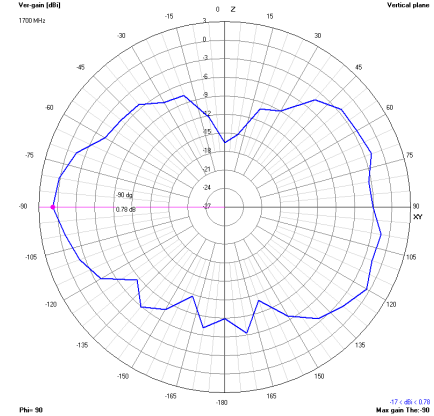
1700 MHz XY



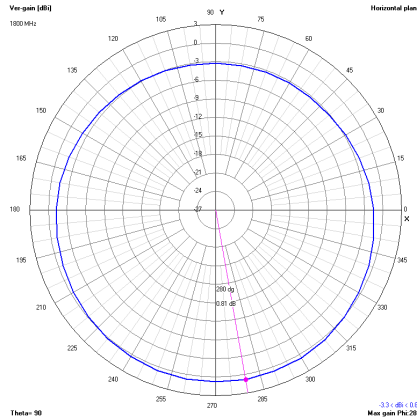
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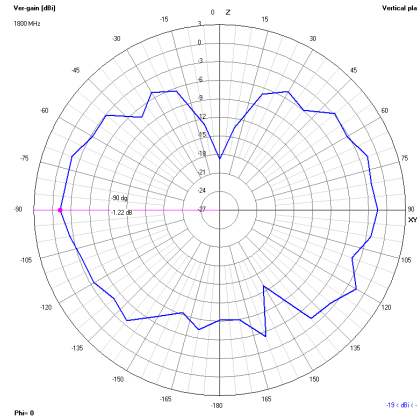
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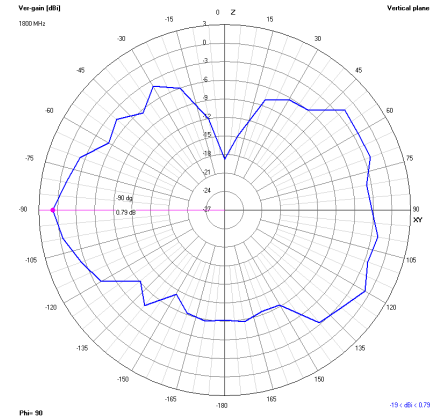
1800 MHz XY



XZ



YZ



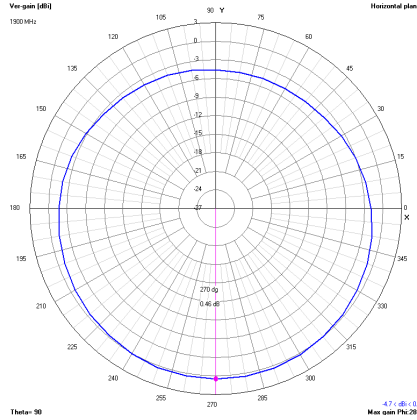


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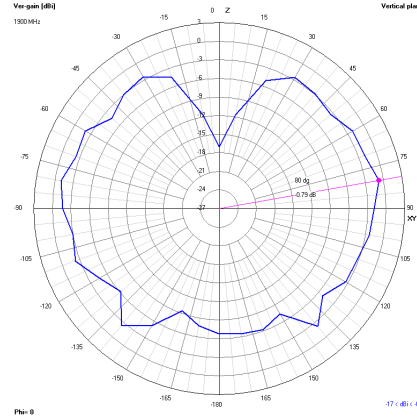
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Radiation Plots tested with 5 m cable

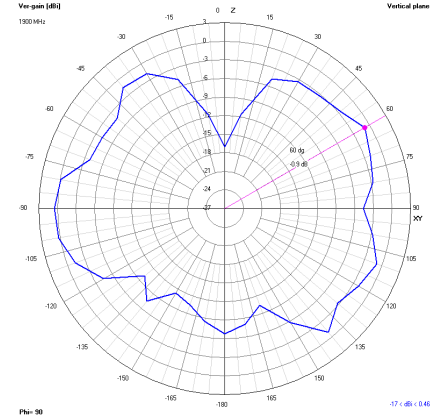
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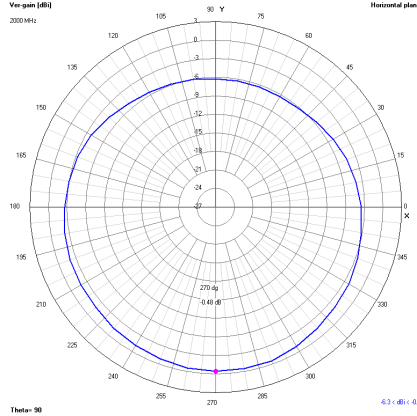
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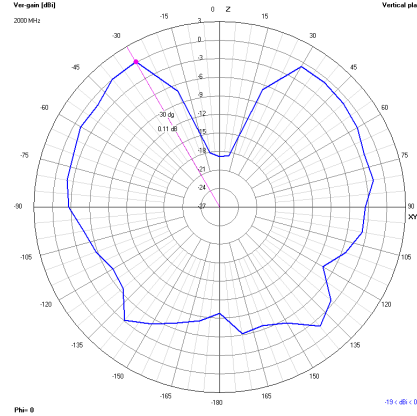
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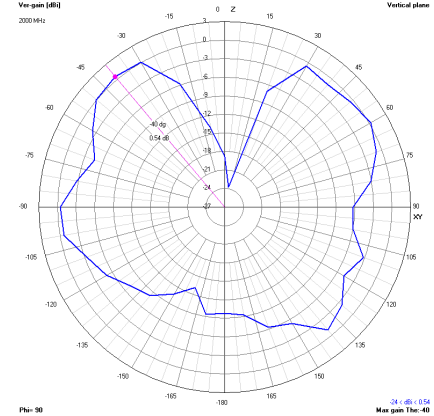
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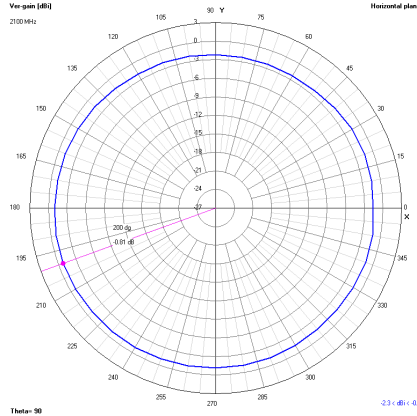
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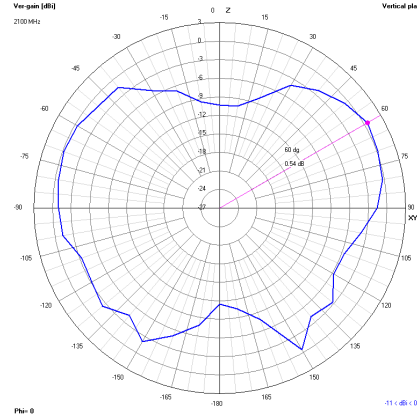
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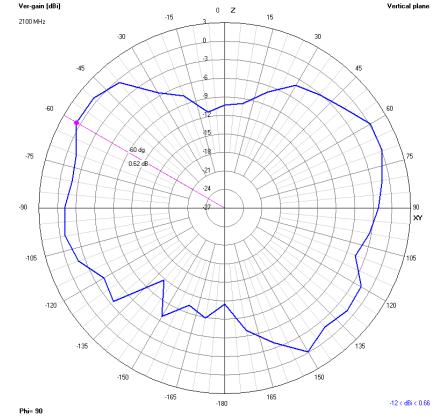
2100 MHz XY



XZ



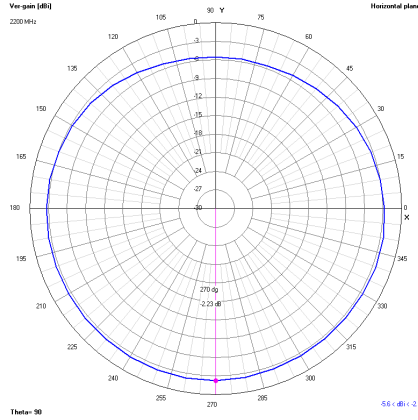
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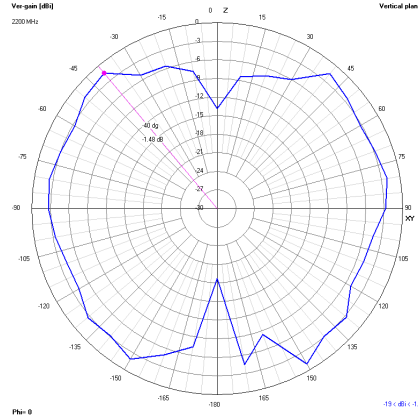


Radiation Plots tested with 5 m cable

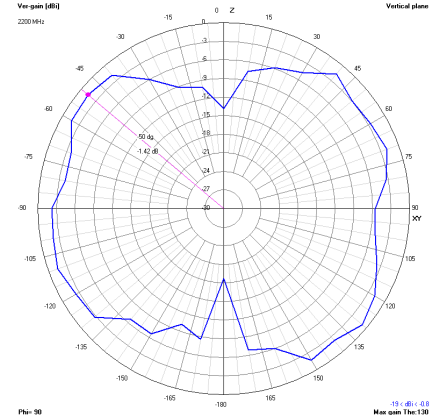
2200 MHz XY



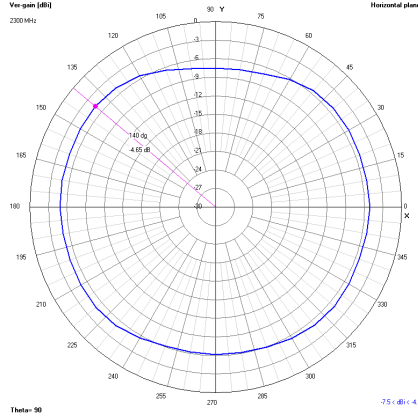
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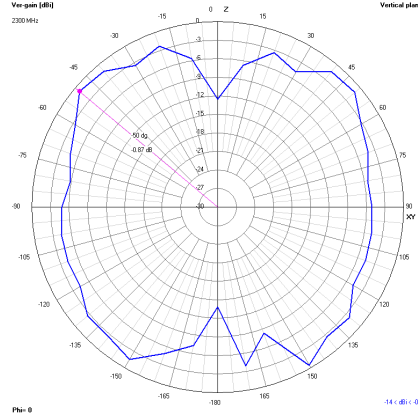
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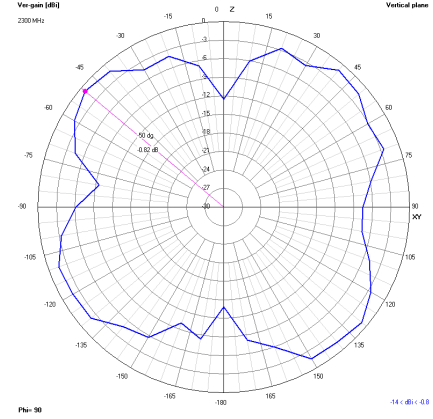
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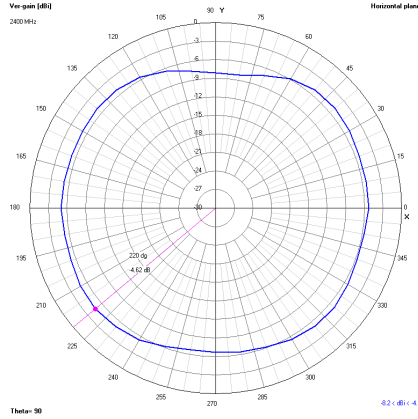
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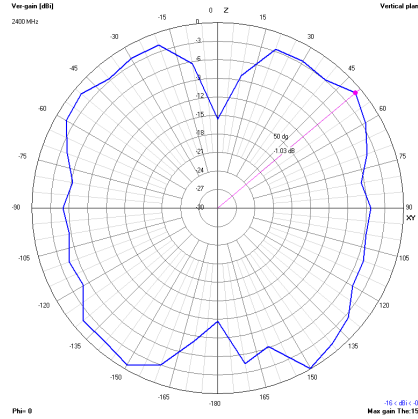
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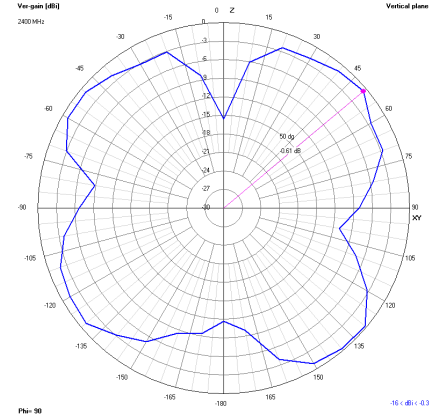
2400 MHz XY



XZ



YZ



WiFi Band
2.4 GHz

Eff %
47.32

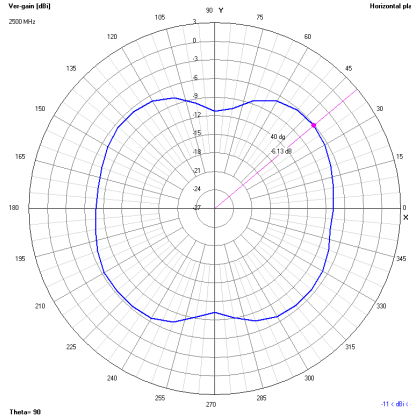
WiFi Band
2.4 GHz

Eff %
47.32

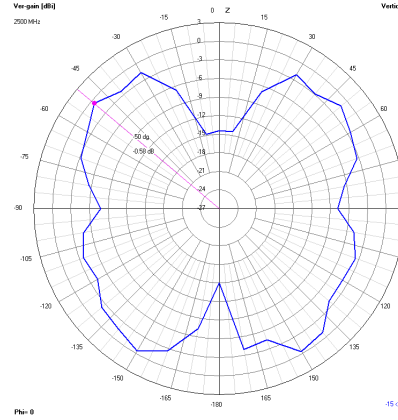


Radiation Plots tested with 5 m cable

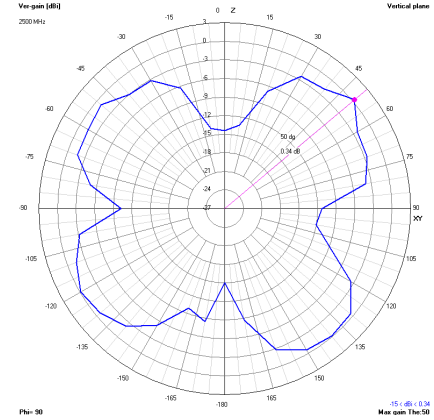
2500 MHz XY



XZ



YZ



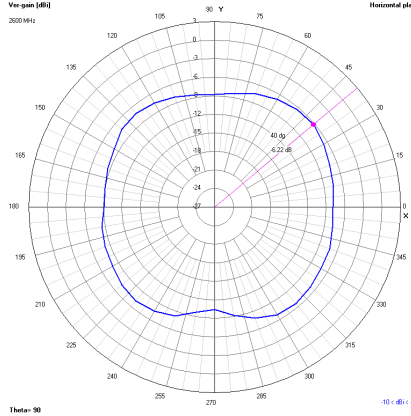
WiFi Band 2.4 GHz

Eff % 46.99

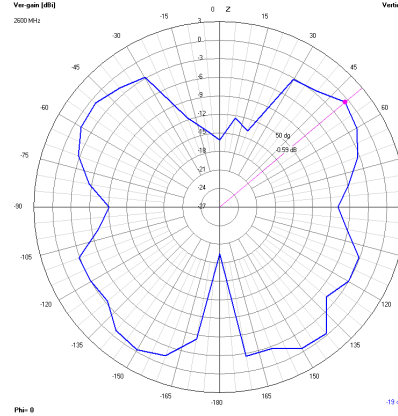
WiFi Band 2.4 GHz

Eff % 46.99

2600 MHz XY



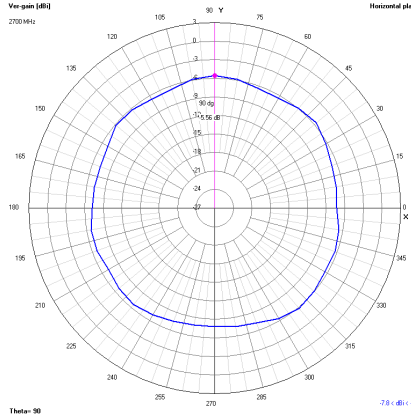
XZ



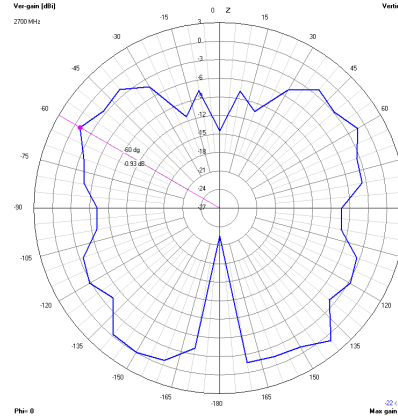
YZ



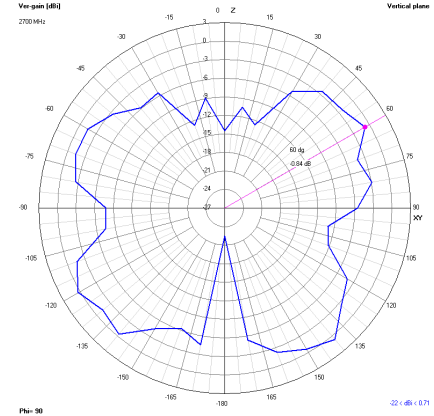
2700 MHz XY



XZ



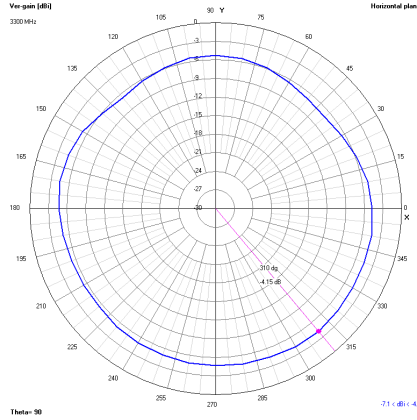
YZ



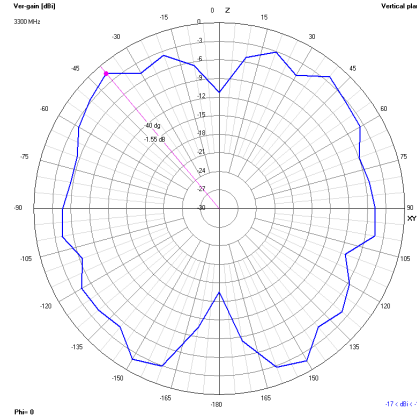


Radiation Plots tested with 5 m cable

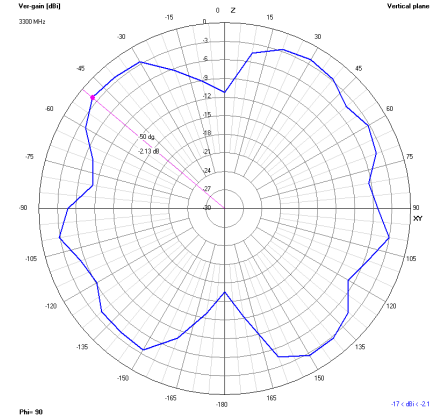
3300 MHz XY



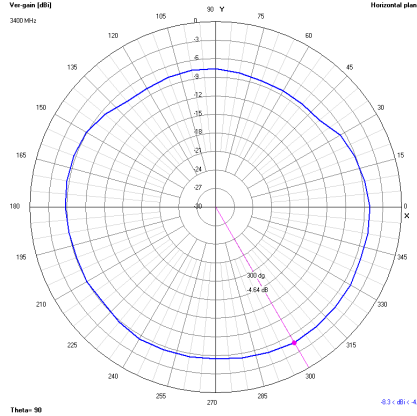
XZ



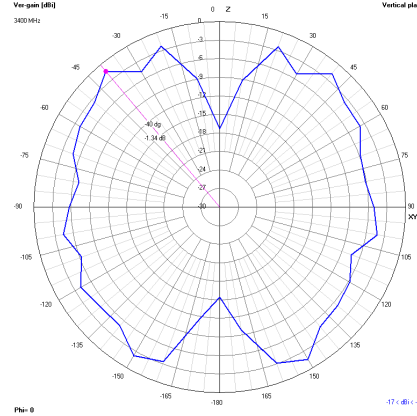
YZ



3400 MHz XY



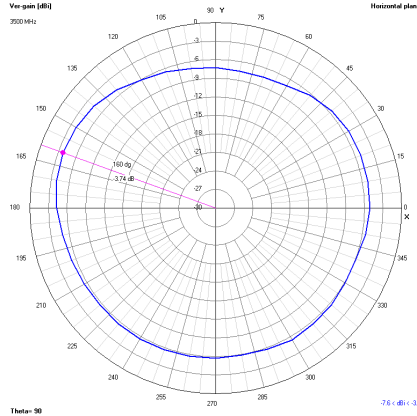
XZ



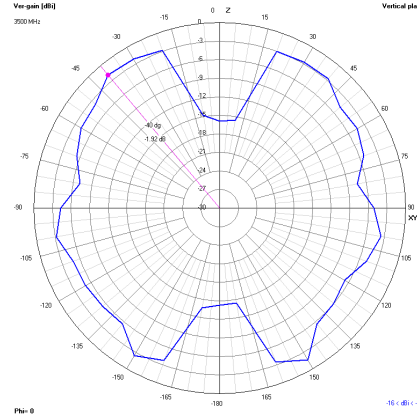
YZ



3500 MHz XY



XZ



YZ



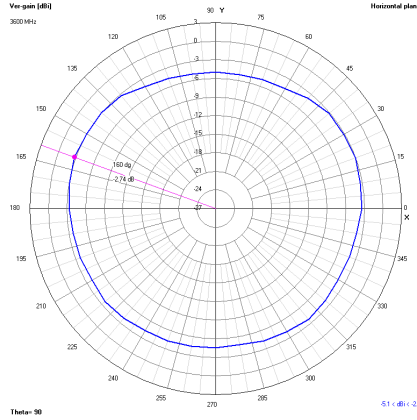


Oscar 40

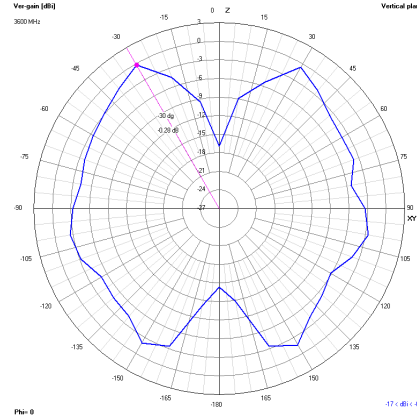
2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

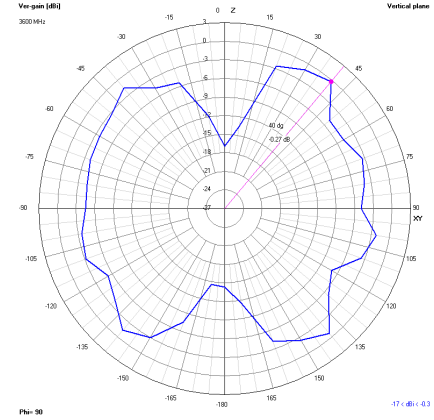
3600 MHz XY



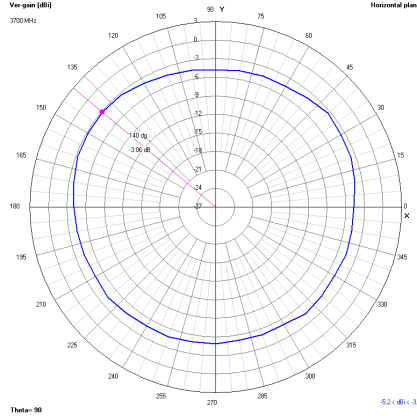
XZ



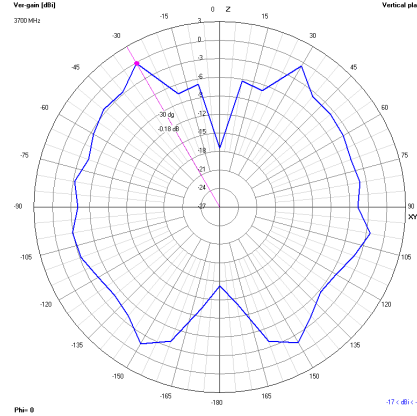
YZ



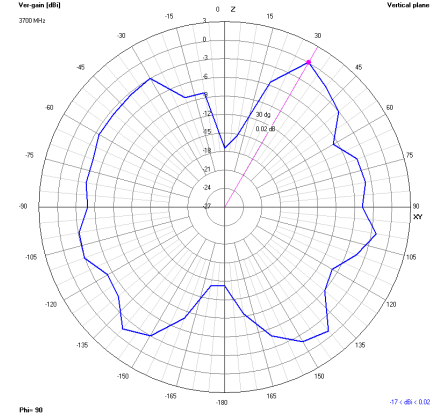
3700 MHz XY



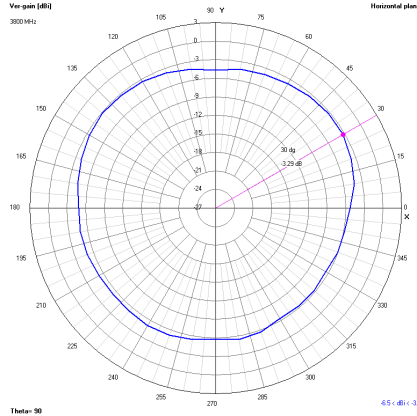
XZ



YZ



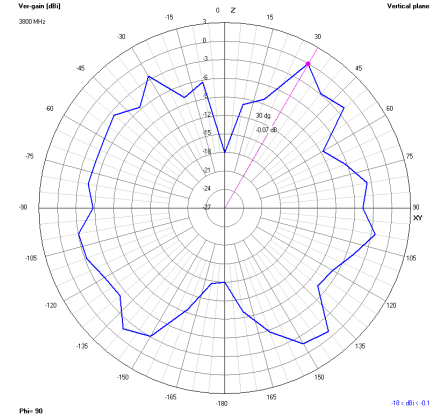
3800 MHz XY



XZ



YZ



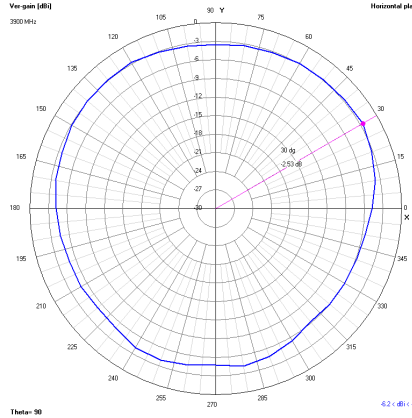


Oscar 40

2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

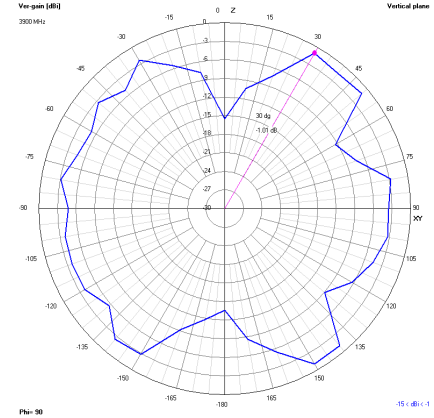
3900 MHz XY



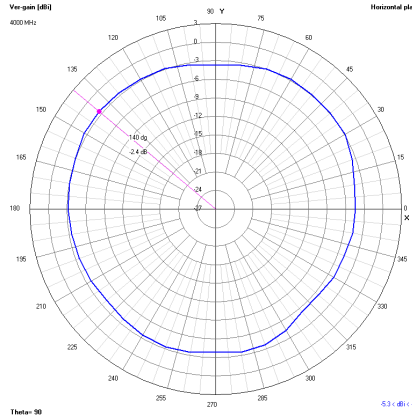
XZ



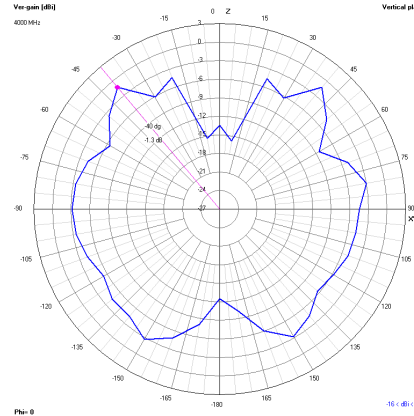
YZ



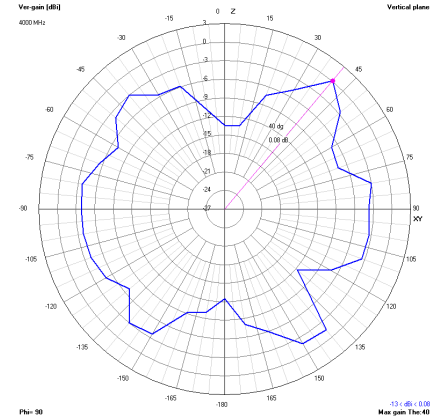
4000 MHz XY



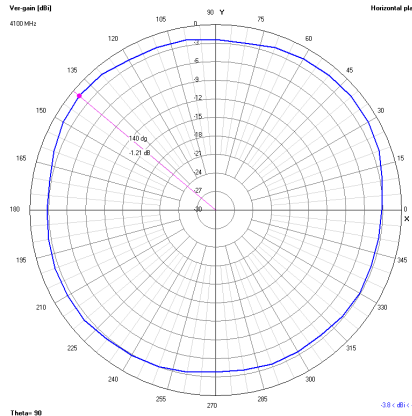
XZ



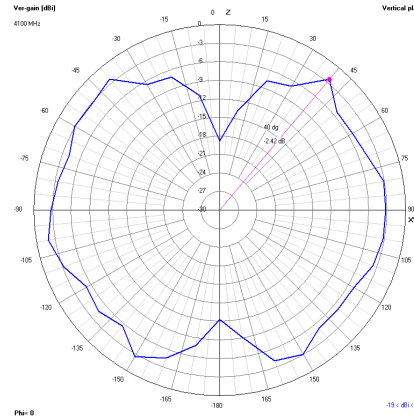
YZ



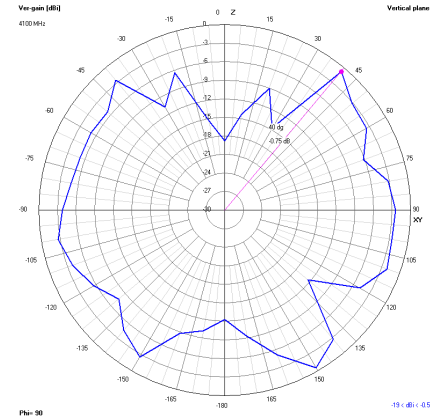
4100 MHz XY



XZ



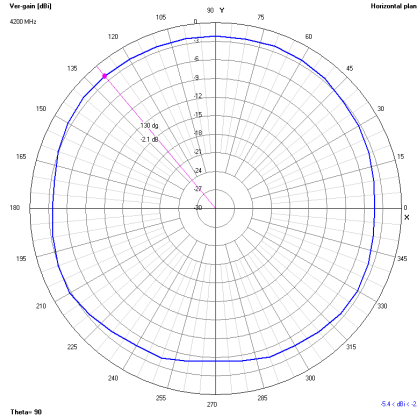
YZ





Radiation Plots tested with 5 m cable

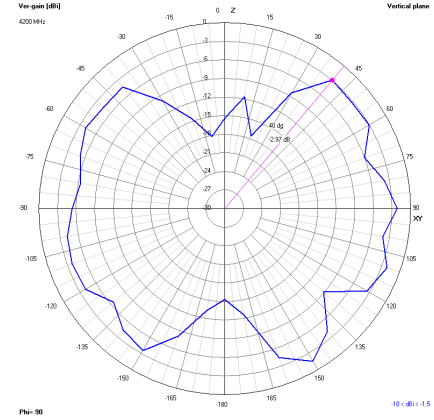
4200 MHz XY



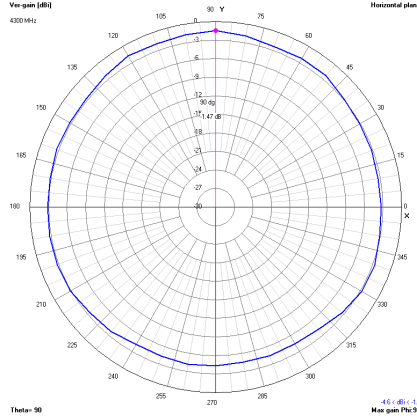
XZ



YZ



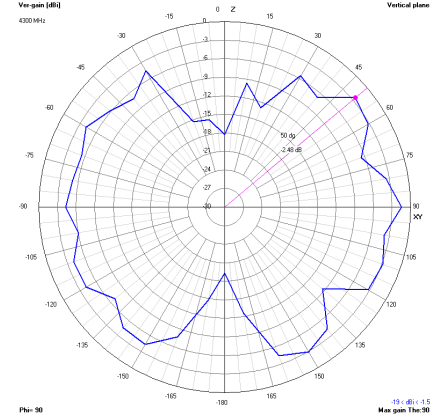
4300 MHz XY



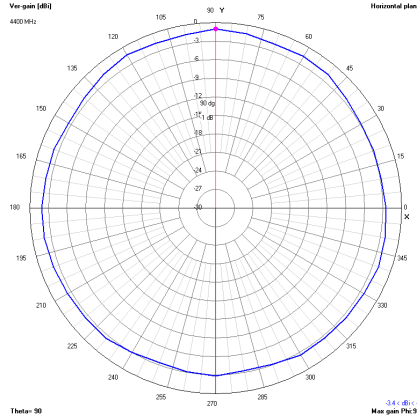
XZ



YZ



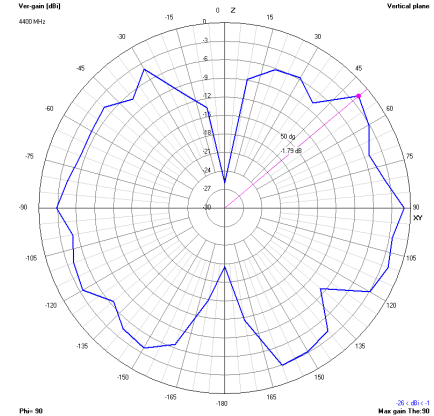
4400 MHz XY



XZ



YZ



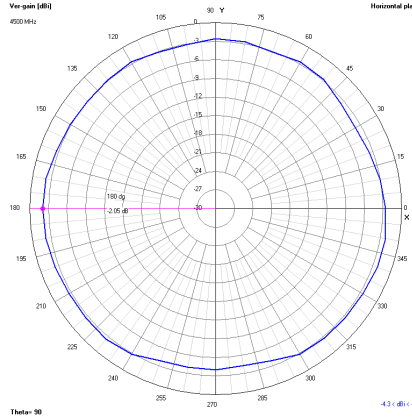


Oscar 40

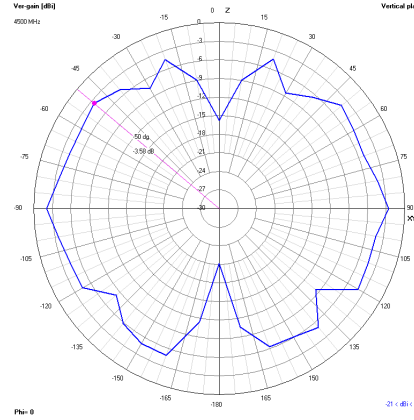
2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

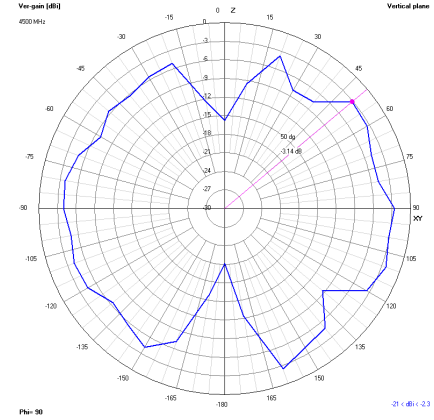
4500 MHz XY



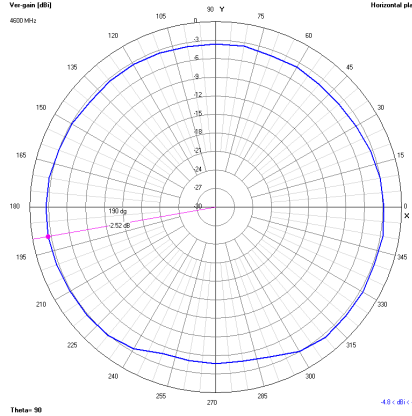
XZ



YZ



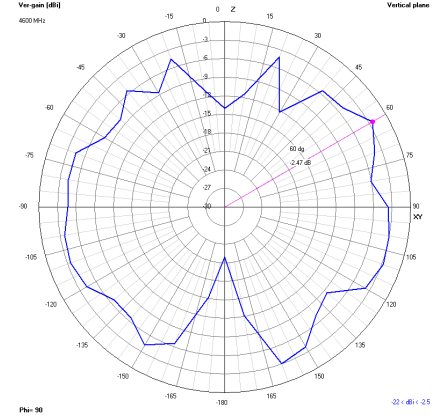
4600 MHz XY



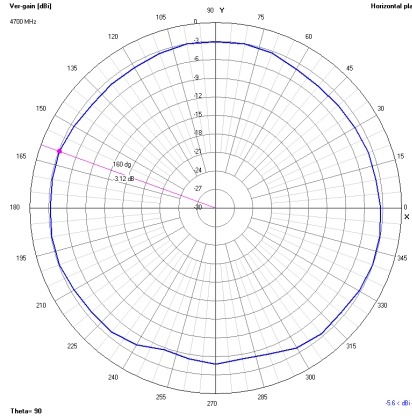
XZ



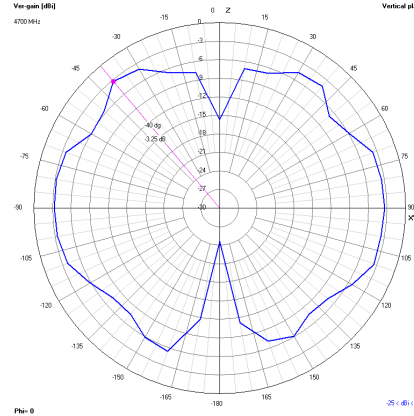
YZ



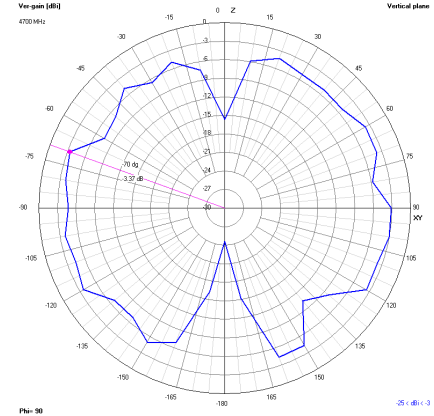
4700 MHz XY



XZ



YZ



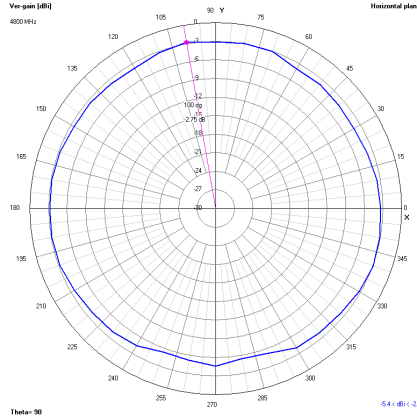


Oscar 40

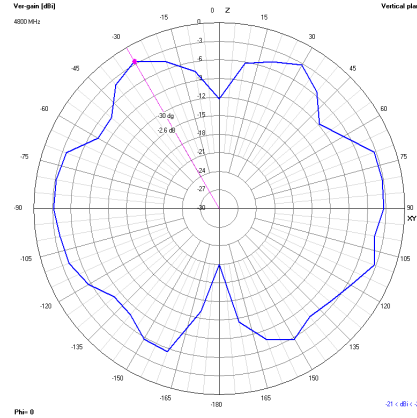
2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

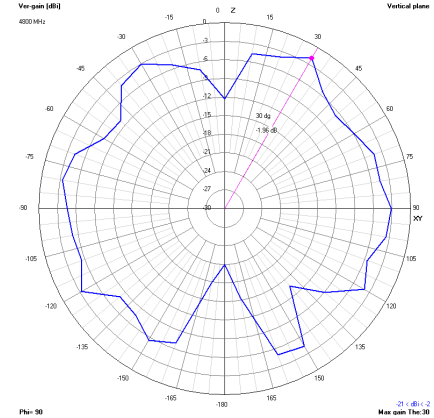
4800 MHz XY



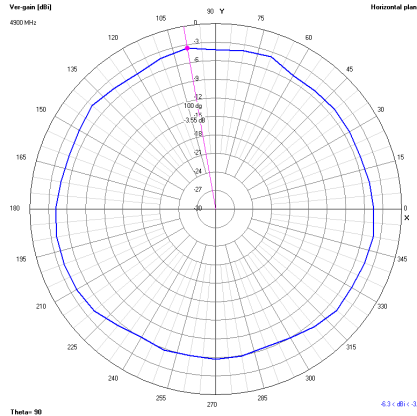
XZ



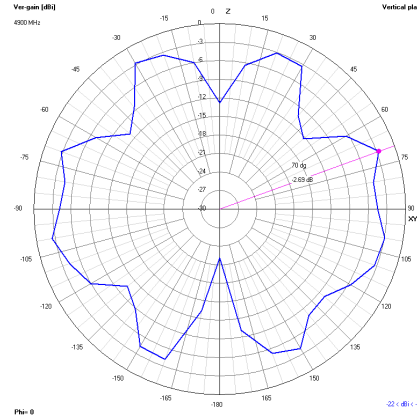
YZ



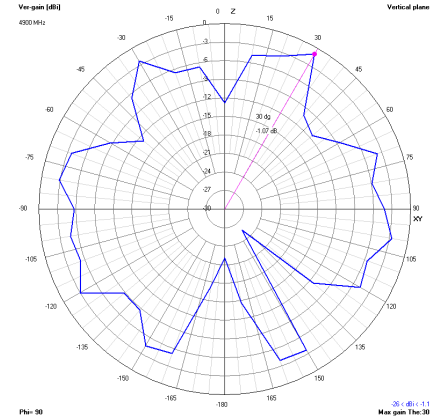
4900 MHz XY



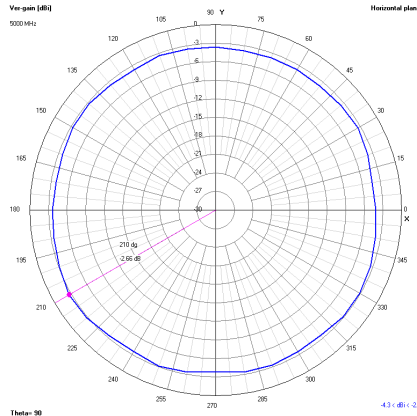
XZ



YZ



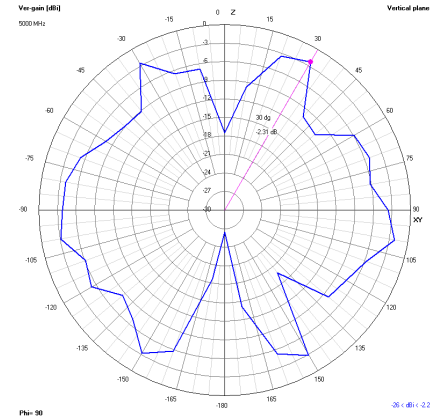
5000 MHz XY



XZ



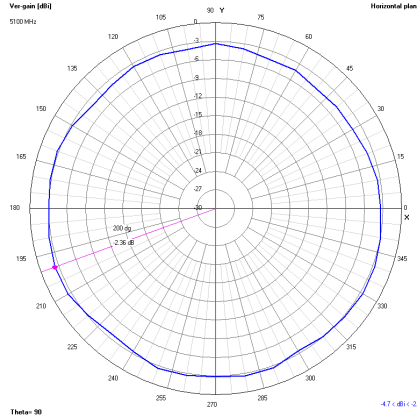
YZ



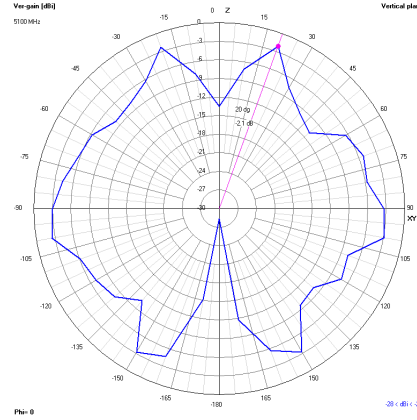


Radiation Plots tested with 5 m cable

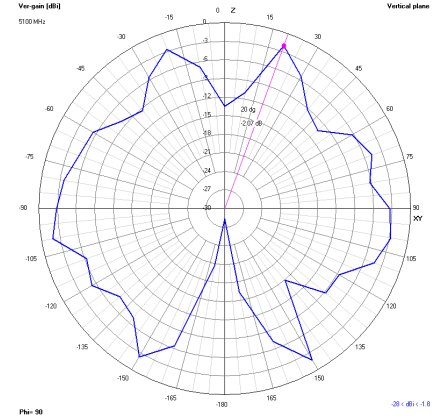
5100 MHz XY



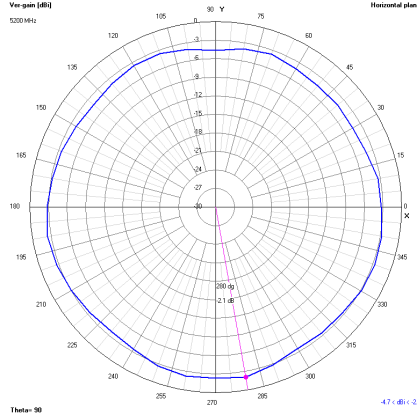
XZ



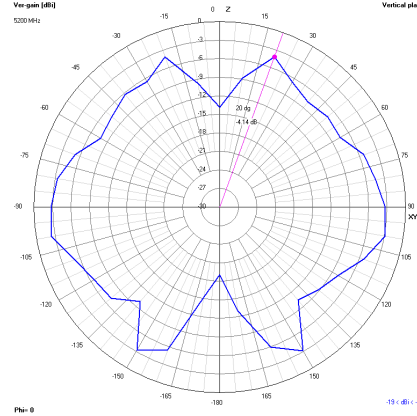
YZ



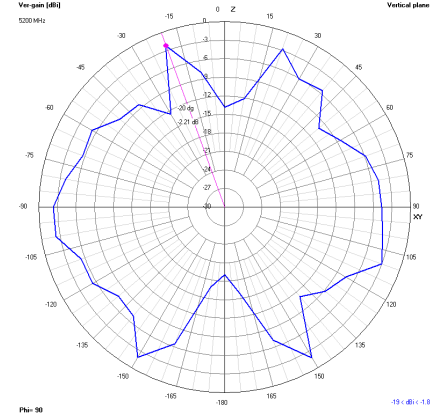
5200 MHz XY



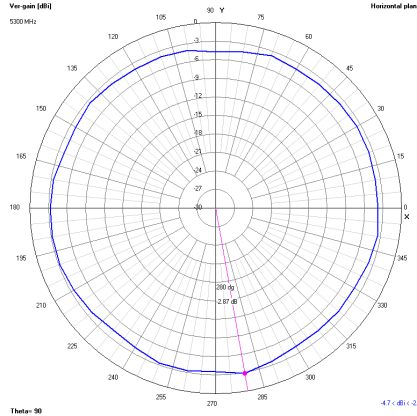
XZ



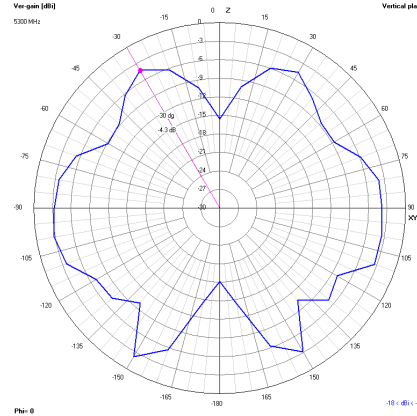
YZ



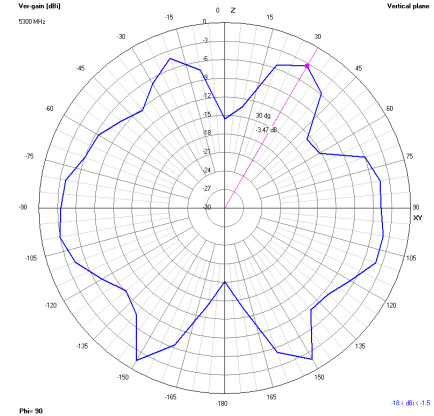
5300 MHz XY



XZ



YZ



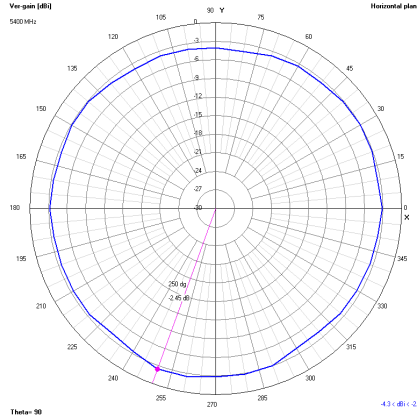


Oscar 40

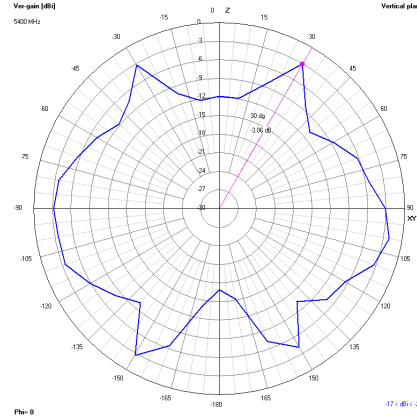
2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA

Radiation Plots tested with 5 m cable

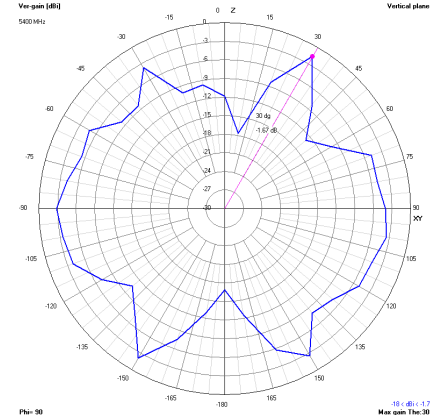
5400 MHz XY



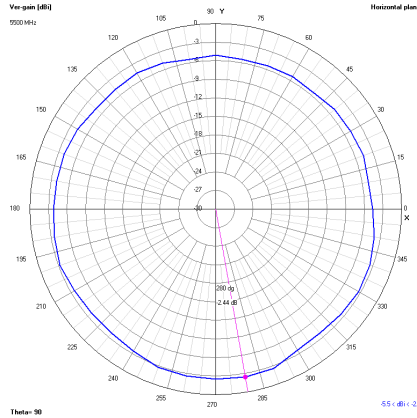
XZ



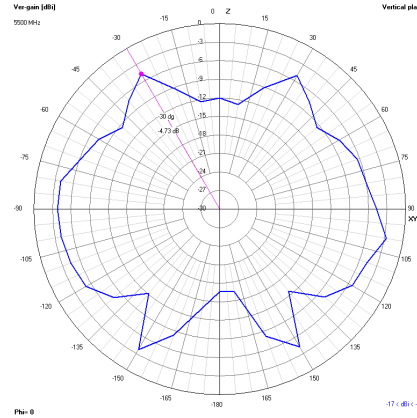
YZ



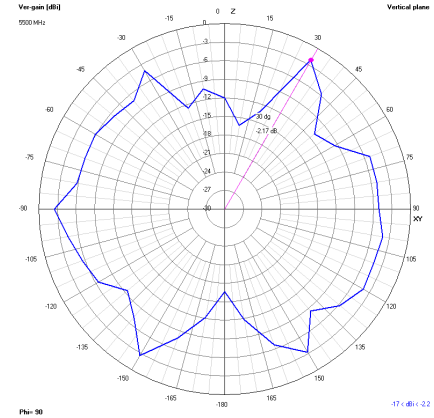
5500 MHz XY



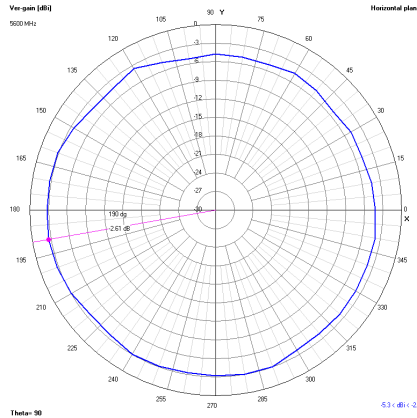
XZ



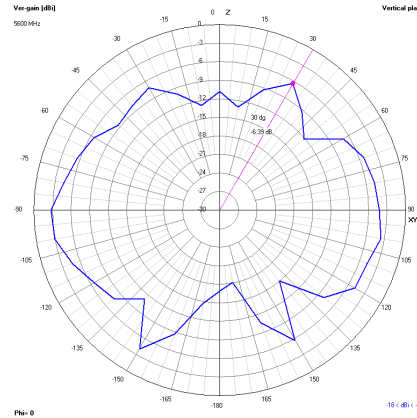
YZ



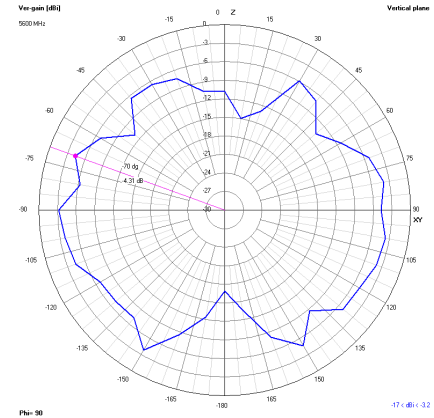
5600 MHz XY



XZ



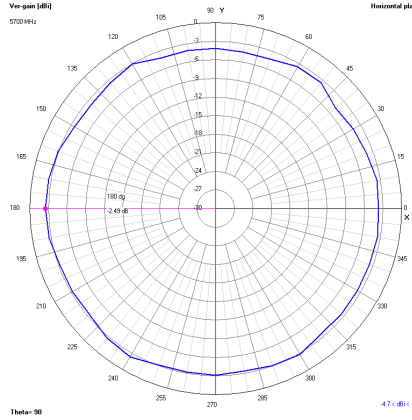
YZ



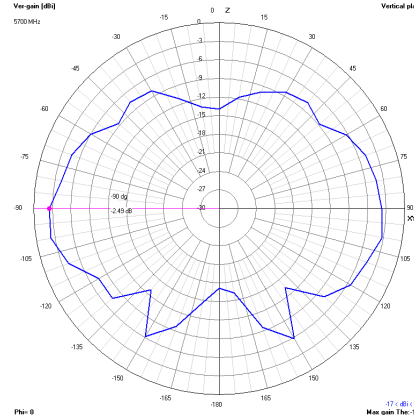


Radiation Plots tested with 5 m cable

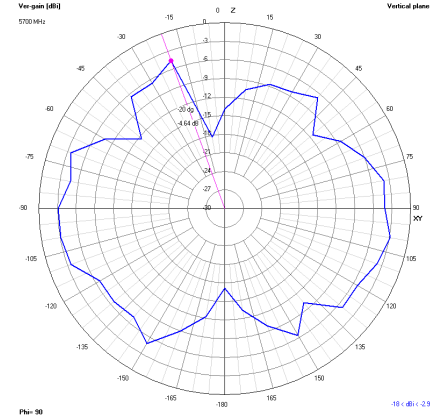
5700 MHz XY



XZ



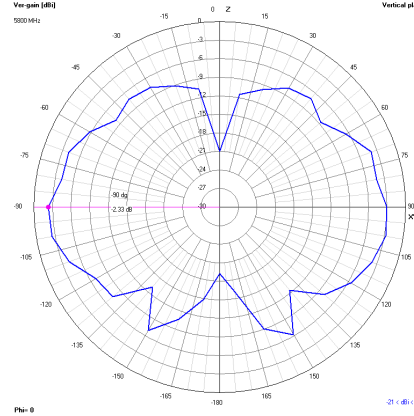
YZ



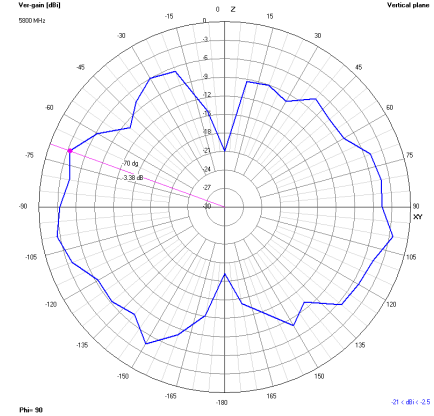
5800 MHz XY



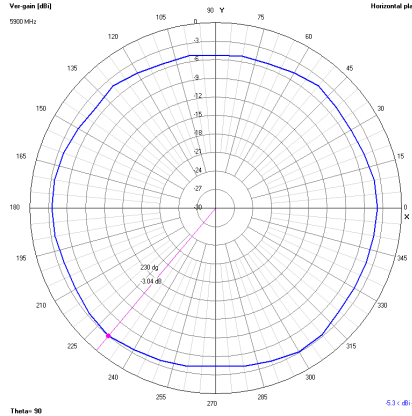
XZ



YZ



5900 MHz XY



XZ



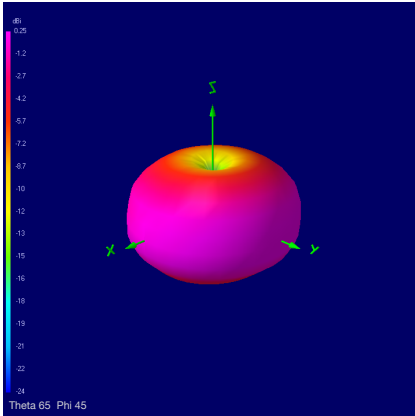
YZ



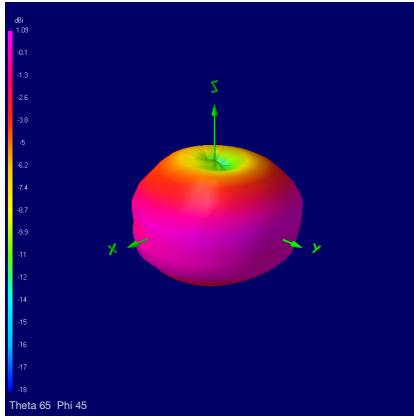


3D Radiation Plots tested with 5 m cable

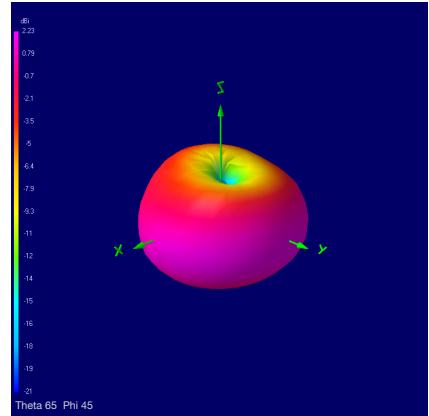
600 MHz



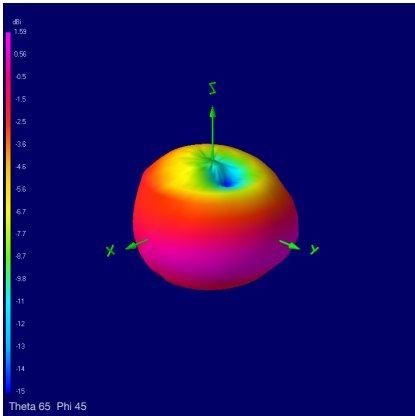
700 MHz



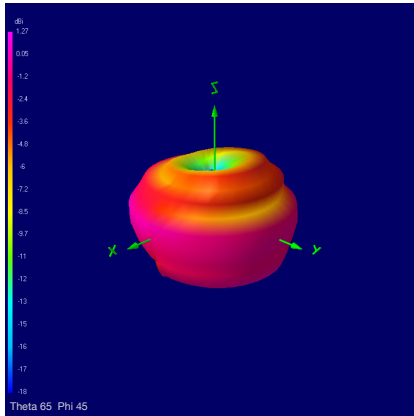
800 MHz



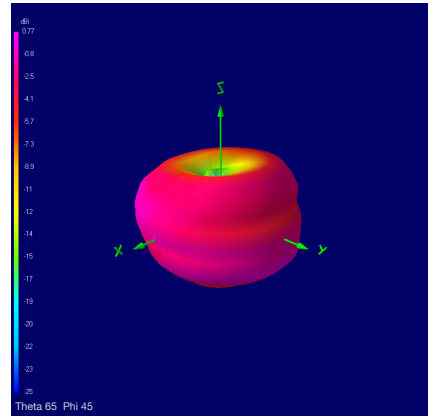
900 MHz



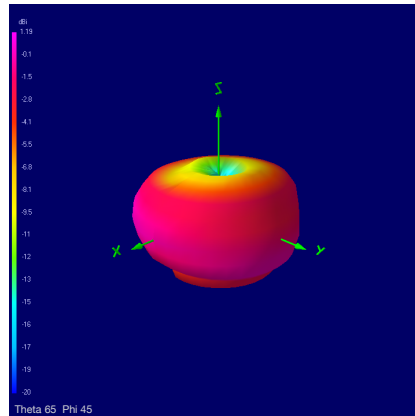
1400 MHz



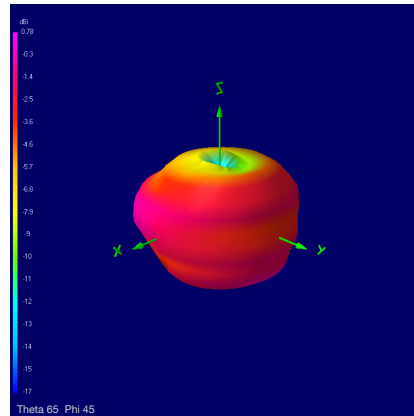
1500 MHz



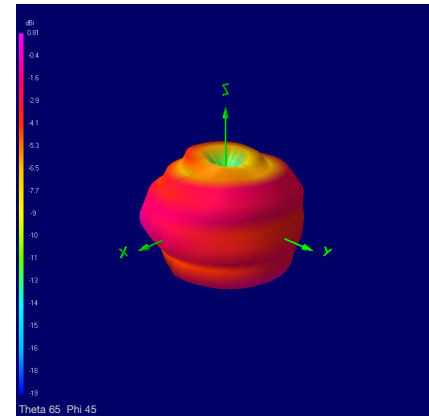
1600 MHz



1700 MHz



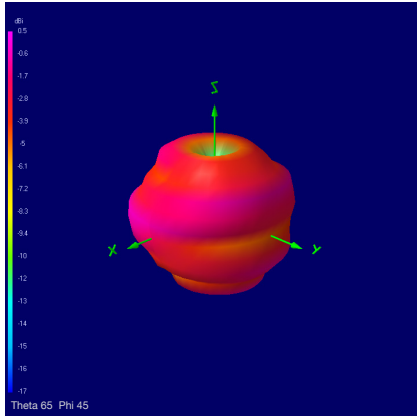
1800 MHz



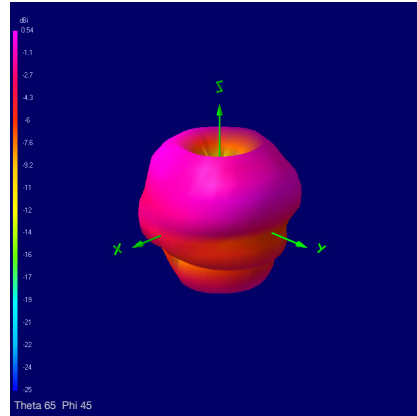


3D Radiation Plots tested with 5 m cable

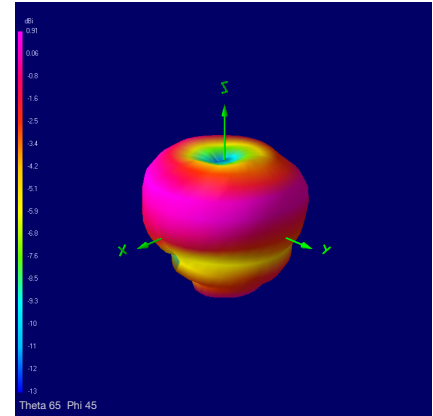
1900 MHz



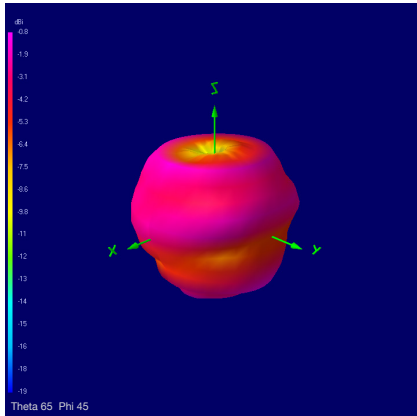
2000 MHz



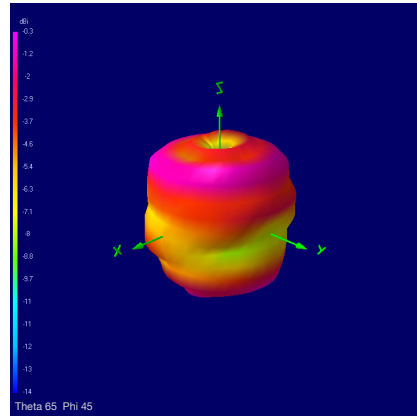
2100 MHz



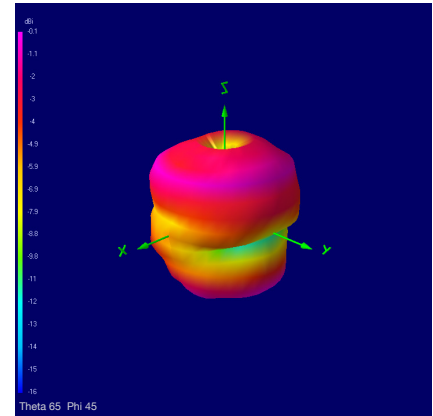
2200 MHz



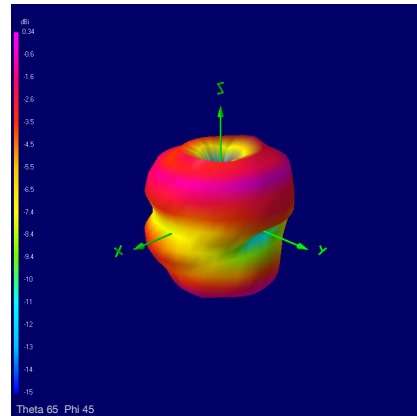
2300 MHz



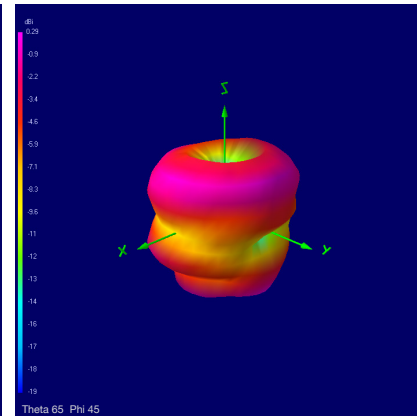
2400 MHz



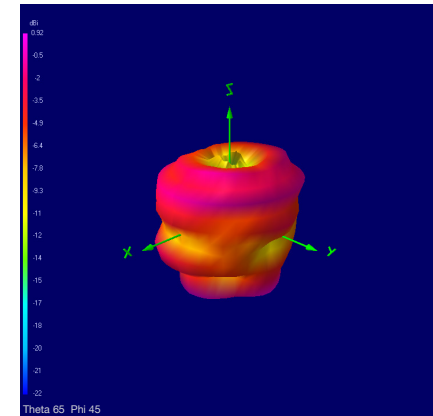
2500 MHz



2600 MHz



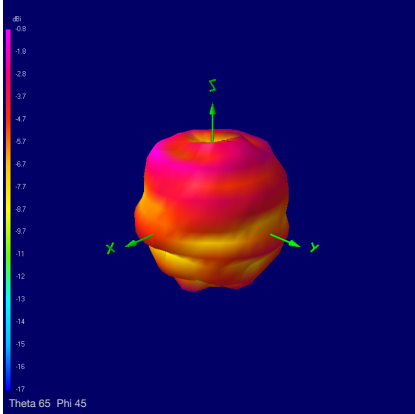
2700 MHz



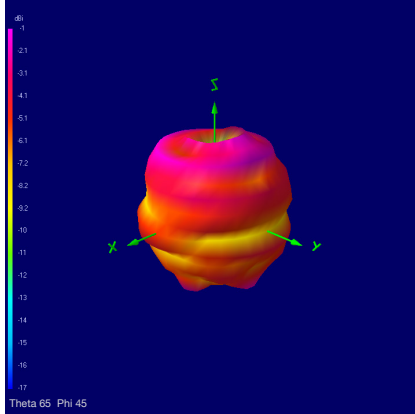


3D Radiation Plots tested with 5 m cable

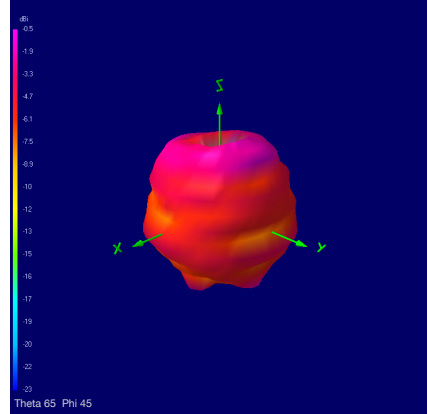
3300 MHz



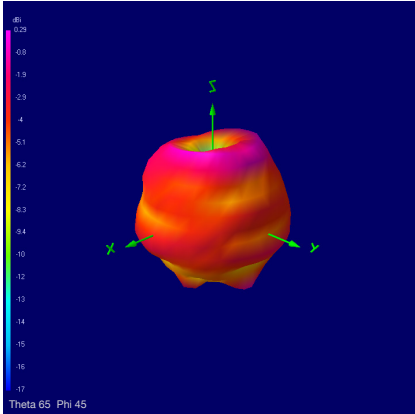
3400 MHz



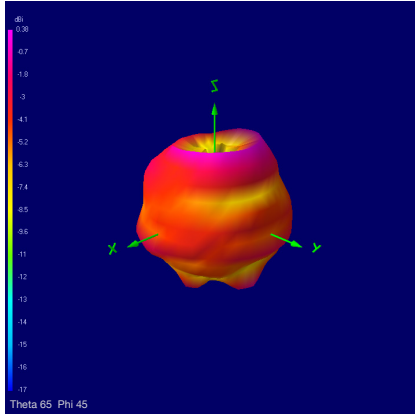
3500 MHz



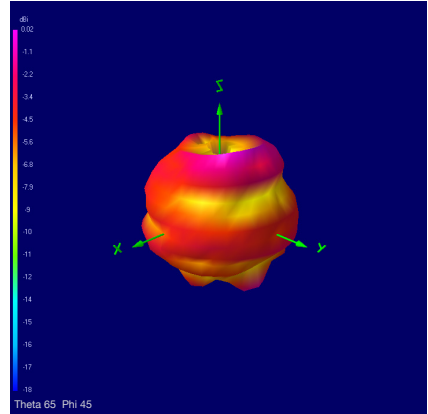
3600 MHz



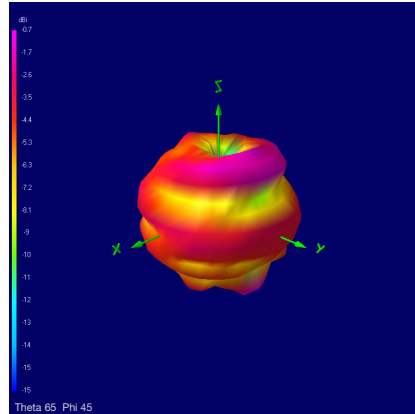
3700 MHz



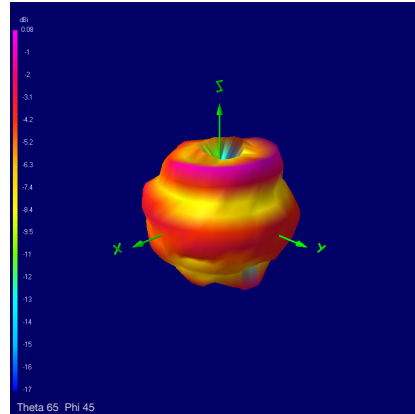
3800 MHz



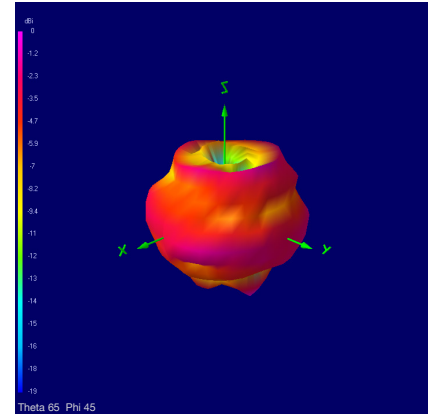
3900 MHz



4000 MHz



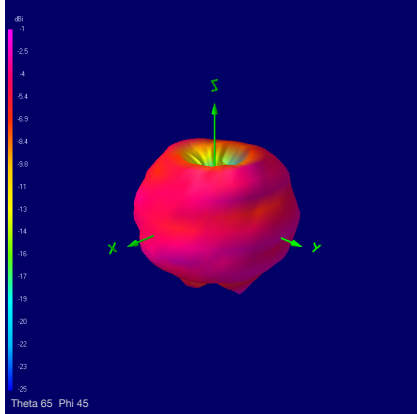
4100 MHz



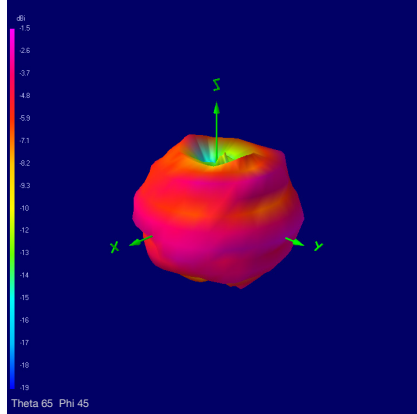


3D Radiation Plots tested with 5 m cable

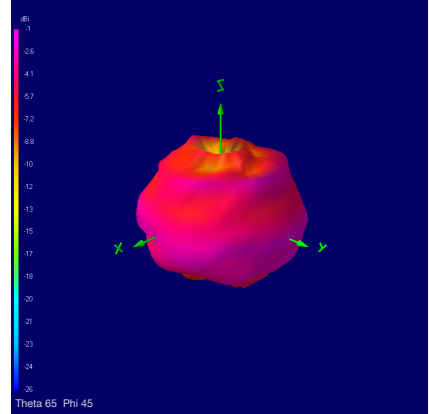
4200 MHz



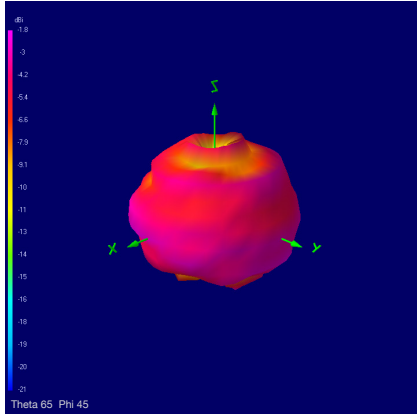
4300 MHz



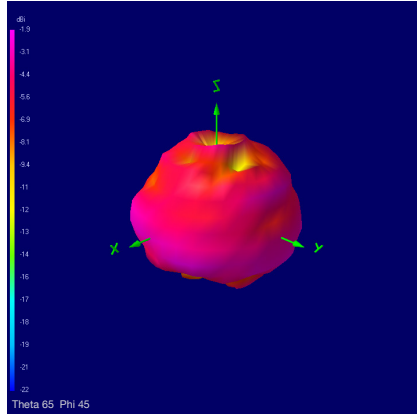
4400 MHz



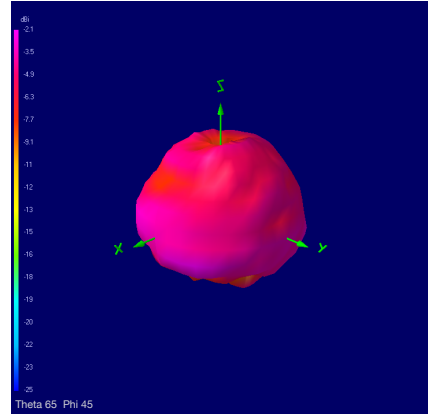
4500 MHz



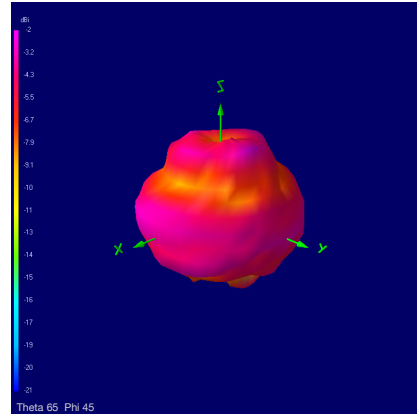
4600 MHz



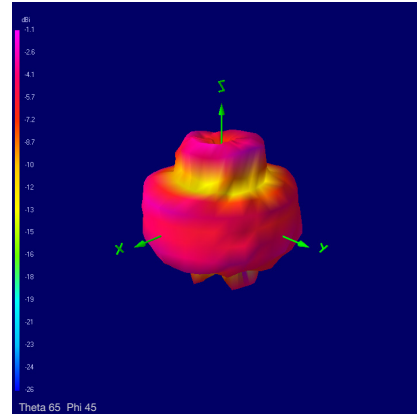
4700 MHz



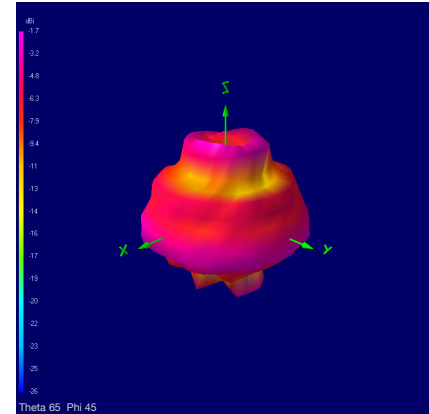
4800 MHz



4900 MHz



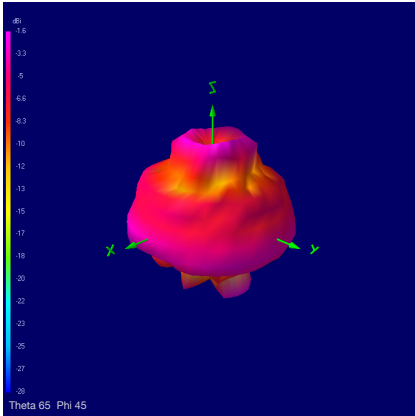
5000 MHz



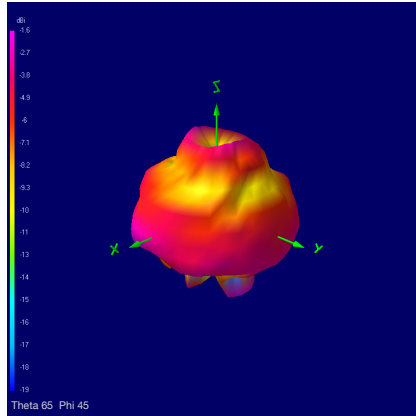


3D Radiation Plots tested with 5 m cable

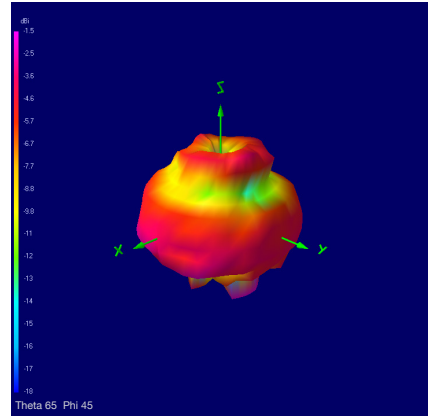
5100 MHz



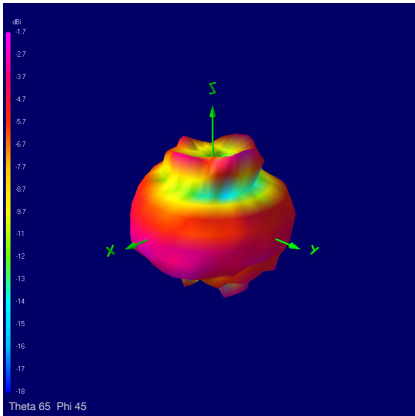
5200 MHz



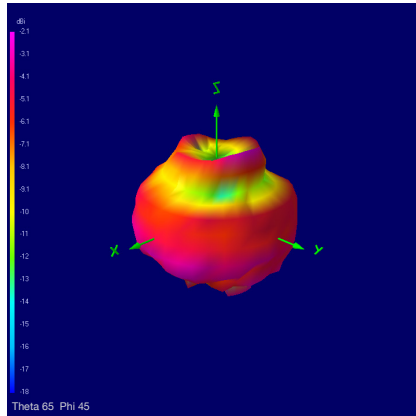
5300 MHz



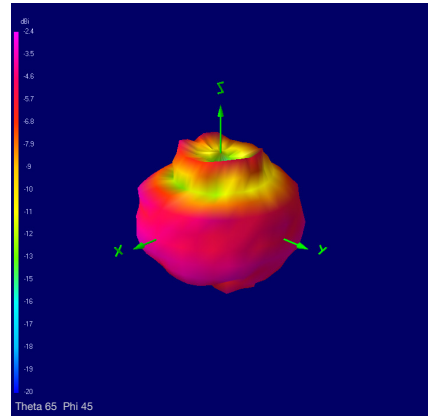
5400 MHz



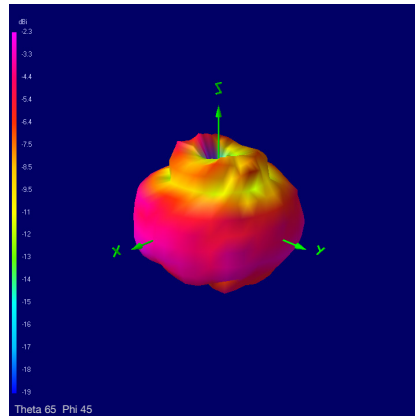
5500 MHz



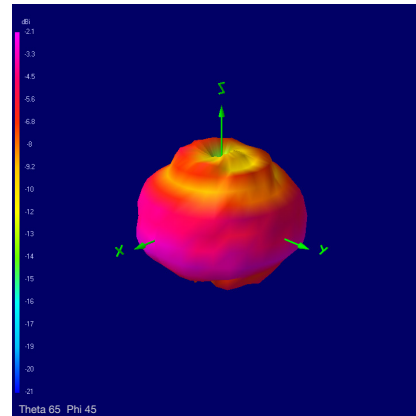
5600 MHz



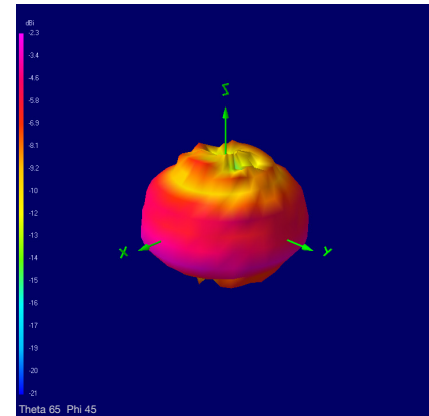
5700 MHz



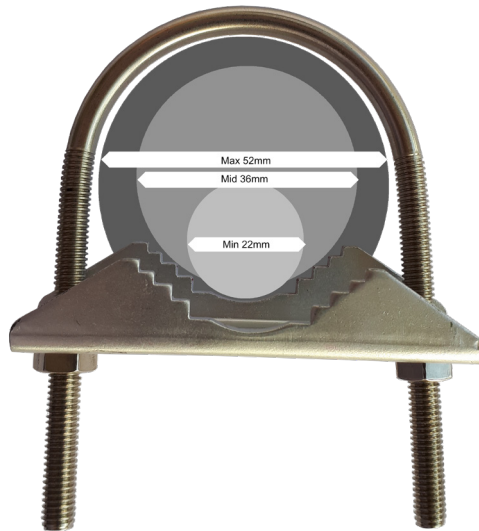
5800 MHz



5900 MHz



Pole Mounting Detail



Ordering Details

Part Number	Description
OSCAR40/5M/LL/SMAM/S/S/33	2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA SMA MALE CONNECTOR 5M CABLE
OSCAR40/10M/LL/SMAM/S/S/33	2G/3G/4G/5G & WIFI WIDEBAND OMNIDIRECTIONAL WALLMOUNT ANTENNA SMA MALE CONNECTOR 10M CABLE