



## Mike 1A

2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA



### Key Features

- Magnetic mount
- Quad band 2G (GSM/GPRS), 3G, 4G/5G LTE frequencies
- LTE Cat M and LTE NB IoT

### General Description

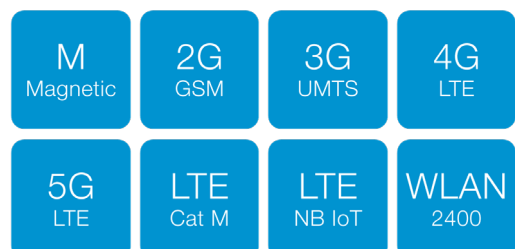
The Mike 1A magnetic mount antenna is a popular, versatile antenna used by many users of 2G (GSM/GPRS) 3G, 4G and 5G applications.

Typical applications for this antenna are utility metering, alarm panels and sensor monitoring.

A variety of connector options and cable lengths are available and others can be specified for volume orders

### Additional Considerations

- Simple to fit in place
- Meets all EU compliance criteria for electronic goods





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### Electrical Specifications

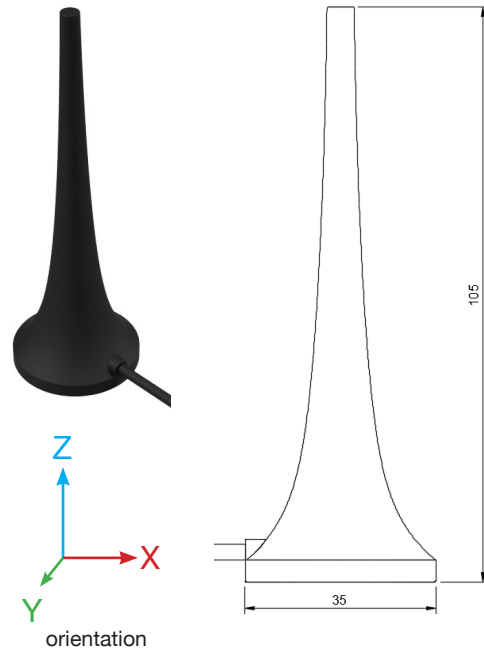
Impedance:	50 Ohms
Polarization:	Vertical
Radiating Element:	Whip
Ground Plane Independent:	No

### Environmental Specification

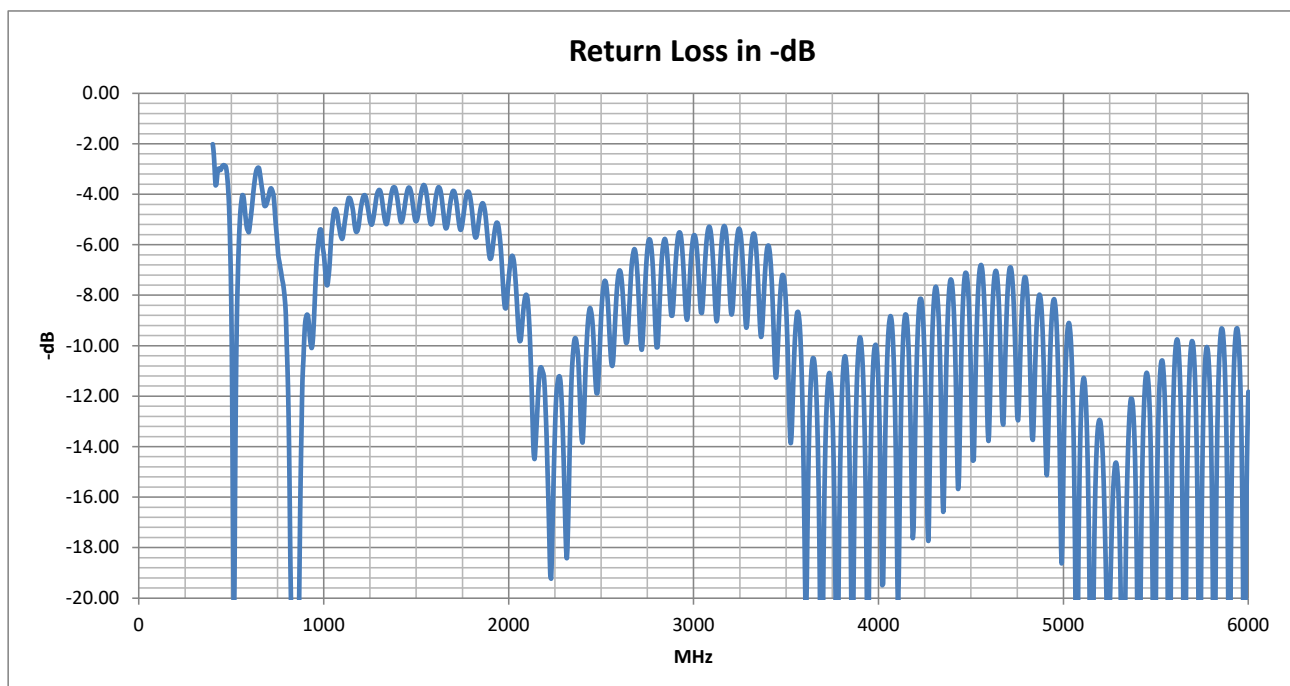
Temperature Range:	-45 - +75 °C
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### Mechanical Specifications

Dimensions:	105 mm x 34 mm Ø
Weight:	20 g
Cable:	RG174
Connector:	SMA Male / FME Female
Mounting Method:	Magnetic

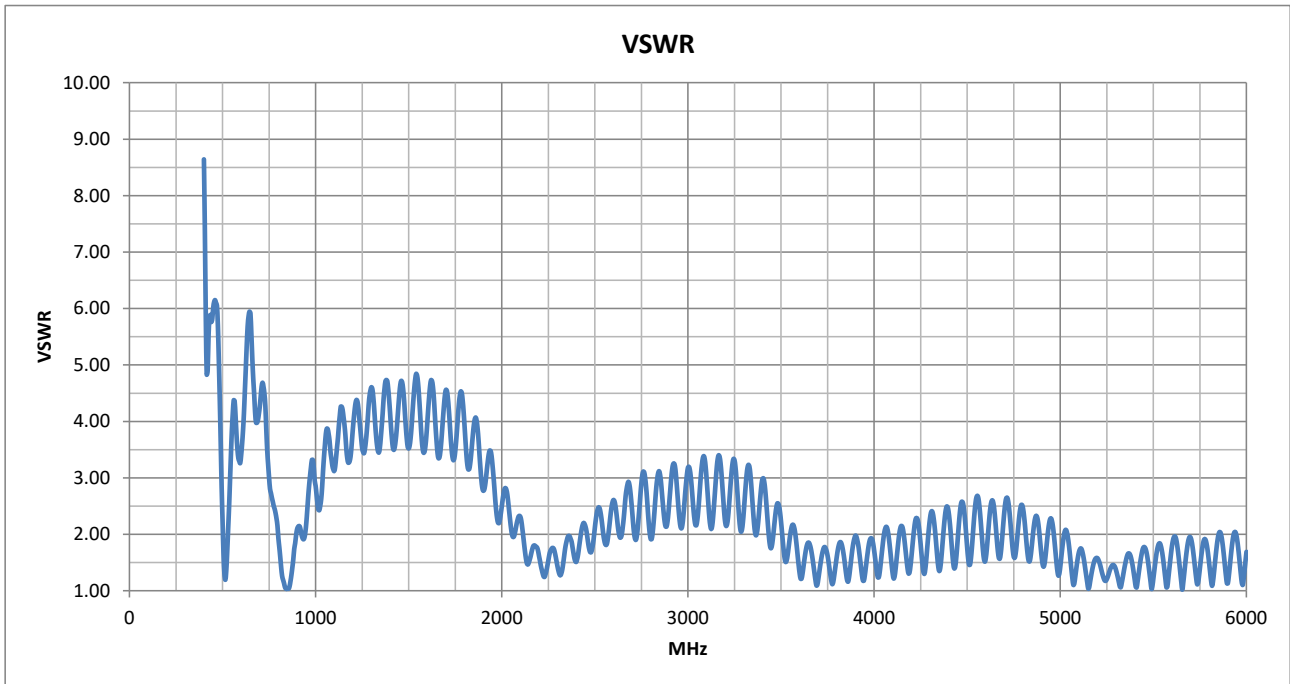


### Return Loss tested with 1.2 m cable

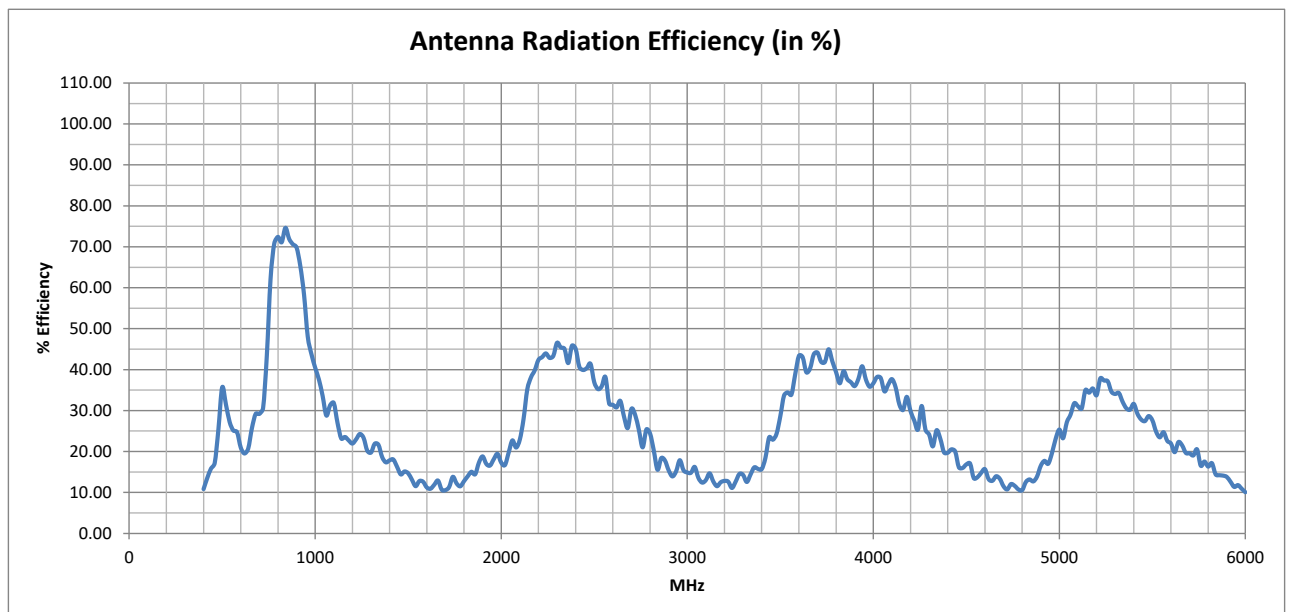




#### VSWR tested with 1.2 m cable



#### Radiation Efficiency tested with 1.2 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	17.76 / 32.78	3.48 / 2.11
2/n2	B2	North America/Latin America/Caribbean	1850-1910 MHz	1930-1990 MHz	16.49 / 17.66	4.07 / 3.48
3/n3	B3	Europe/Africa/Asia/Oceania	1710-1785 MHz	1805-1880 MHz	12.01 / 14.68	4.53 / 4.07
4	B4	North America/Latin America/Caribbean	1710-1755 MHz	2110-2155 MHz	11.96 / 31.02	4.42 / 2.11
5/n5	B5	Country Specific	824-849 MHz	869-894 MHz	72.57 / 70.80	1.26 / 1.98
7/n7		Latin America/Europe/Asia +	2500-2570 MHz	2620-2690 MHz	35.58 / 29.55	2.48 / 2.93
8/n8	B8	Europe / Asia +	880-915 MHz	925-960 MHz	68.59 / 57.25	2.15 / 2.66
11	B11	Country Specific	1427.9-1447.9 MHz	1475.9-1495.9 MHz	16.22 / 14.71	4.49 / 4.38
12/n12	B12	North America/Caribbean +	699-716 MHz	729-746 MHz	29.66 / 45.35	4.69 / 4.49
13/n13	B13	North America/Caribbean +	777-787 MHz	746-756 MHz	68.44 / 52.72	2.50 / 3.23
14/n14	B14	Country Specific	788-798 MHz	758-768 MHz	71.62 / 58.74	2.37 / 2.81
17	B17	North America/Caribbean +	704-716 MHz	734-746 MHz	29.90 / 45.35	4.69 / 4.27
18/n18	B18	Country Specific	815-830 MHz	860-875 MHz	72.74 / 71.29	1.41 / 1.41
19	B19	Country Specific	830-845 MHz	875-890 MHz	72.57 / 70.80	1.14 / 1.84
20/n20	B20	Europe/Africa +	832-862 MHz	791-821 MHz	72.09 / 72.25	1.17 / 2.28
21		Country Specific	1447.9-1462.9 MHz	1495.9-1510.9 MHz	15.25 / 14.28	4.72 / 3.70
25/n25	B25	Country Specific	1850-1915 MHz	1525-1559 MHz	16.49 / 12.45	4.07 / 4.84
26/n26	B26	Country Specific	814-849 MHz	859-894 MHz	72.54 / 71.76	1.60 / 1.98
28/n28	B28	Latin America/Europe/Asia +	703-748 MHz	758-803 MHz	45.35 / 63.96	4.69 / 2.81
29/n29		Country Specific	-	717-728 MHz	34.38	4.69
30/n30		Country Specific	2305-2315 MHz	2350-2360 MHz	45.98 / 43.34	1.34 / 1.97
31	B31	Country Specific	452.5-457.5 MHz	462.5-467.5 MHz	16.50 / 21.32	6.15 / 6.15
32		Country Specific	-	1452-1496 MHz	15.10	4.72
38/n38		Europe +	2570-2620 MHz		33.01	2.61
39/n39		Country Specific	1880-1920 MHz		17.66	3.42
40/n40		Asia +	2300-2400 MHz		44.92	1.97
41/n41		Country Specific	2496-2690 MHz		33.21	2.93
42		Country Specific	3400-3600 MHz		28.86	2.99
43		Country Specific	3600-3800 MHz		42.18	1.85
46/n46		Country Specific	5150-5925 MHz		25.04	2.04
48/n48		Country Specific	3550-3700MHz		40.12	2.17
65/n65		Country Specific	1920-2010 MHz	2110-2200 MHz	17.49 / 34.38	3.48 / 2.11
66/n66	B66	Country Specific	1710-1780 MHz	2110-2200 MHz	11.86 / 34.38	4.53 / 2.11
71/n71	B71	Country Specific	663-698 MHz	617-652 MHz	28.02 / 21.71	5.11 / 5.95

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	11.88 / 12.45	4.72 / 4.84
n34		2010 – 2025 MHz		17.89	2.82
n47		5855 – 5925 MHz		13.39	2.04
n50		1432 – 1517 MHz		15.25	4.72
n51		1427 – 1432 MHz		17.14	3.84
n53		2483.5 – 2495 MHz		39.15	1.97
n67		738 – 758 MHz		45.35	3.86
n70	B70	1695 – 1710 MHz	1995 – 2020 MHz	10.84 / 17.78	4.56 / 2.82
n74		1427 – 1470 MHz	1475 – 1518 MHz	15.94 / 14.31	4.72 / 4.38
n75		1432 – 1517 MHz		15.25	4.72
n76		1427 – 1432 MHz		17.14	3.84
n77		3300 – 4200 MHz		33.30	3.23
n78		3300 – 3800 MHz		31.19	3.23
n79		4400 – 5000 MHz		15.34	2.68
n80		1710 – 1785 MHz		12.01	4.53
n81		880 – 915 MHz		68.59	2.15
n82		832 – 862 MHz		72.09	1.17
n83		703 – 748 MHz		41.31	4.69
n84		1920 – 1980 MHz		17.76	3.48
n85	B85	698 – 716 MHz	728 – 746 MHz	29.66 / 45.36	4.69 / 4.49
n86		1710 – 1780 MHz		11.86	4.53
n89		824 – 849 MHz		72.57	1.26
n90		2496 – 2690 MHz		33.21	2.93
n91		832 – 862 MHz	1427 – 1432 MHz	72.09 / 17.14	1.17 / 3.84
n92		832 – 862 MHz	1432 – 1517 MHz	72.09 / 15.25	1.17 / 4.72
n93		880 – 915 MHz	1427 – 1432 MHz	68.59 / 17.14	2.15 / 3.84
n94		880 – 915 MHz	1432 – 1517 MHz	68.59 / 15.25	2.15 / 4.72
n95		2010 – 2025 MHz		17.89	2.82
n96		5925 – 7125 MHz		not measured	
n97		2300 – 2400 MHz		44.92	1.97
n98		1880 – 1920 MHz		17.66	3.42
n99		1626.5 – 1660.5 MHz		11.88	4.72

Table data for bands as detailed in 3GPP TS 38.101

● Usable Band     
 ⊖ Adequate in good signal area     
 ✘ Not Usable

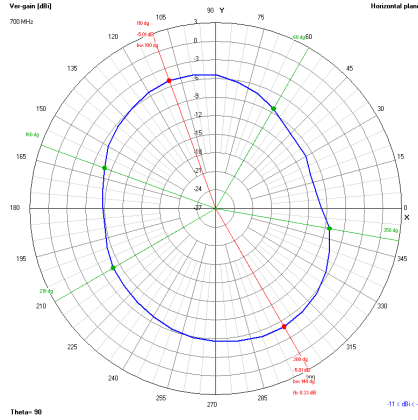


## Mike 1A

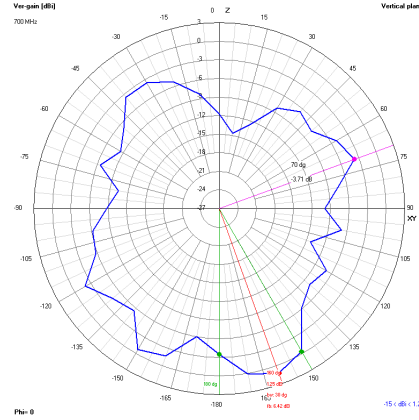
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

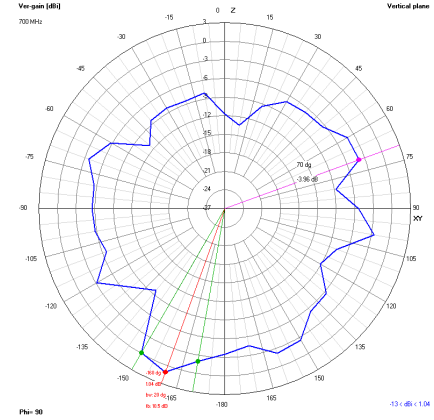
##### 700 MHz XY



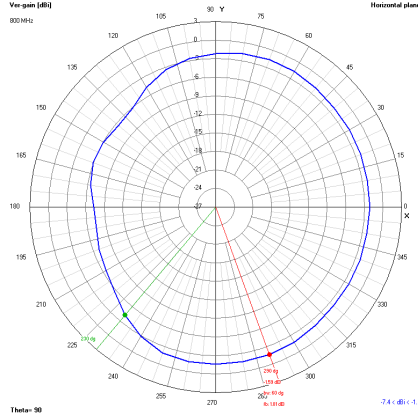
##### XZ



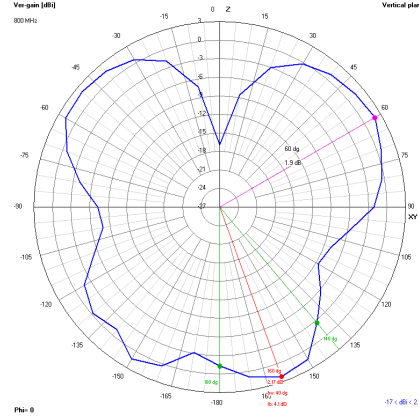
##### YZ



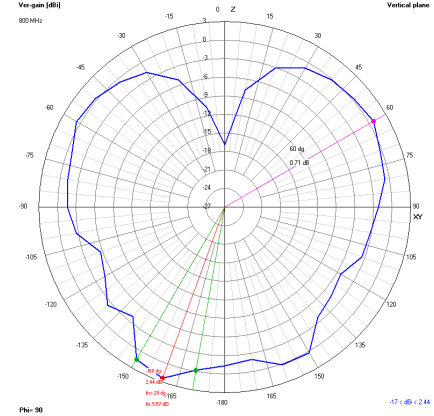
##### 800 MHz XY



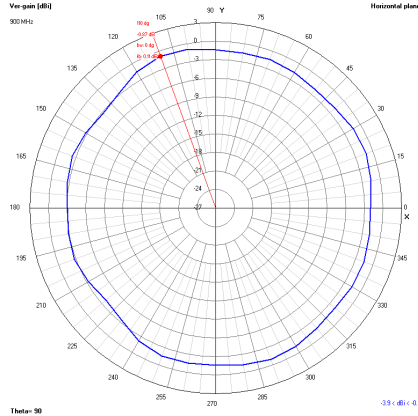
##### XZ



##### YZ



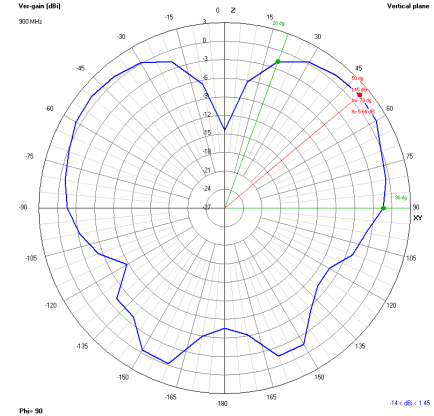
##### 900 MHz XY



##### XZ



##### YZ



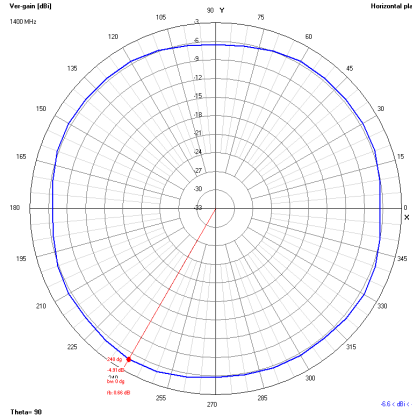


## Mike 1A

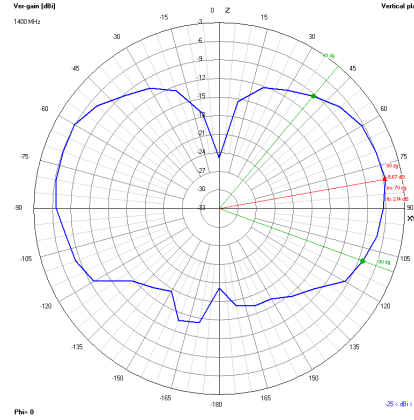
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

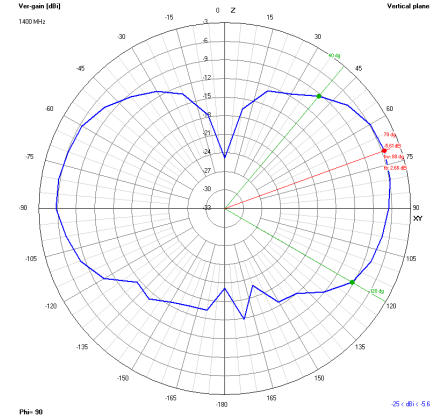
##### 1400 MHz XY



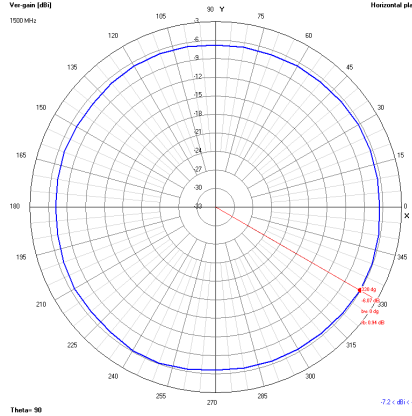
##### XZ



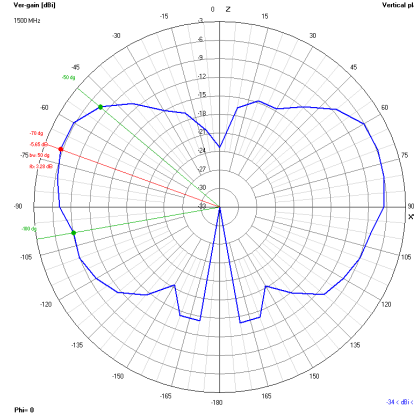
##### YZ



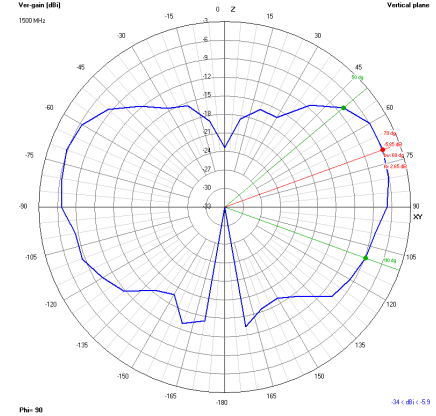
##### 1500 MHz XY



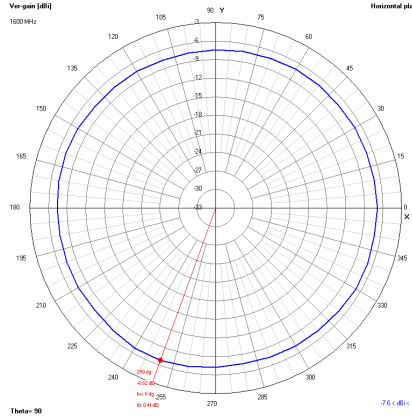
##### XZ



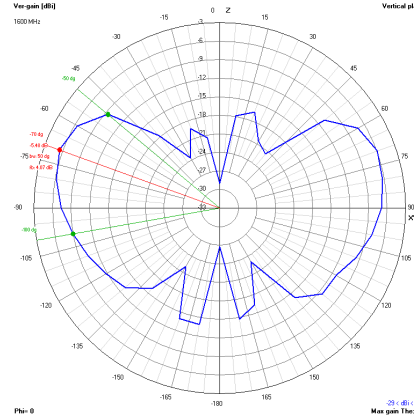
##### YZ



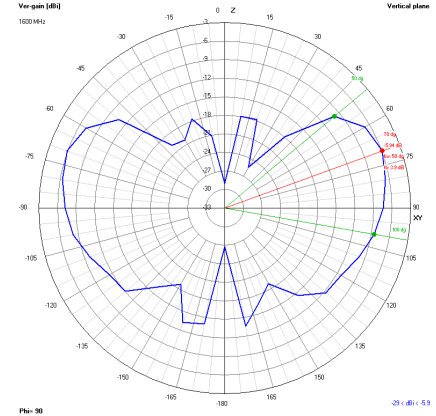
##### 1600 MHz XY



##### XZ



##### YZ



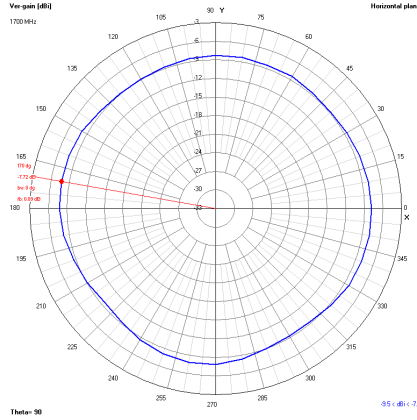


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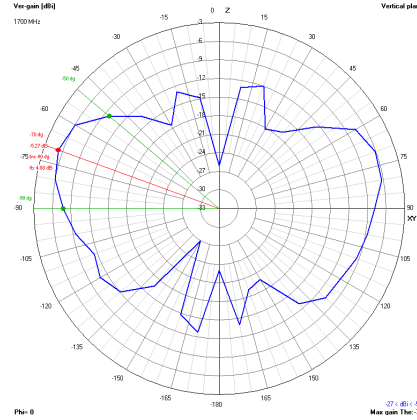
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

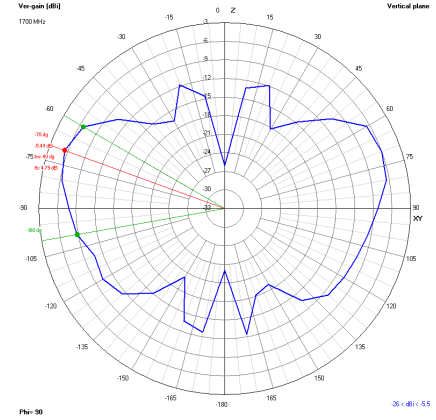
##### 1700 MHz XY



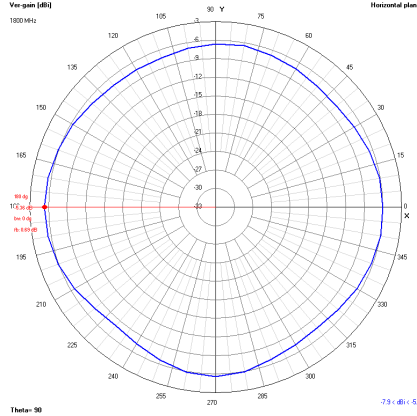
##### XZ



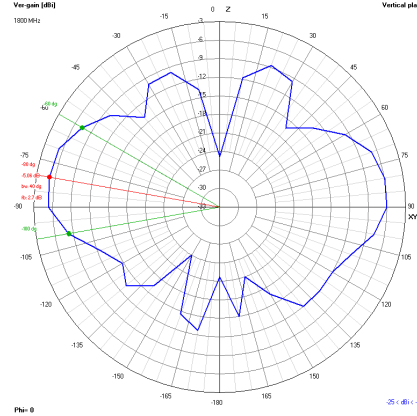
##### YZ



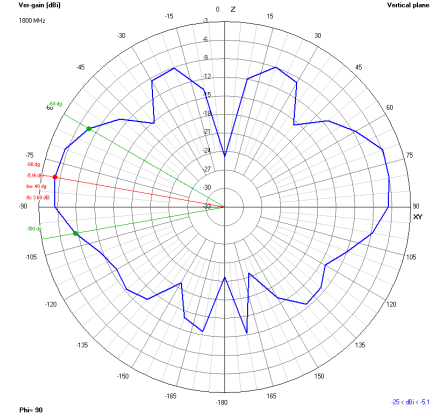
##### 1800 MHz XY



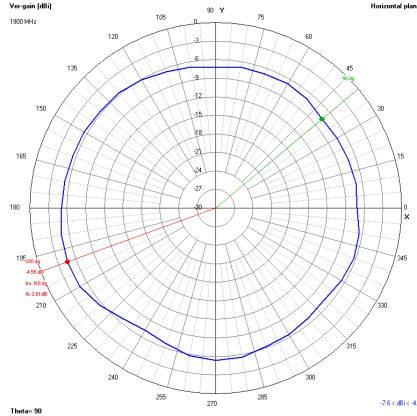
##### XZ



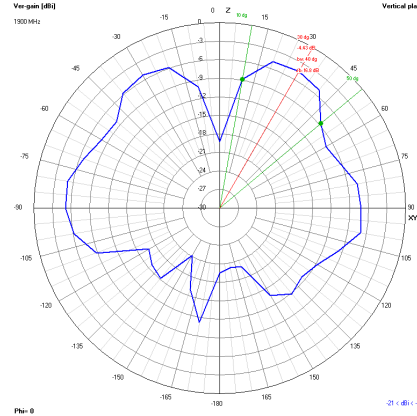
##### YZ



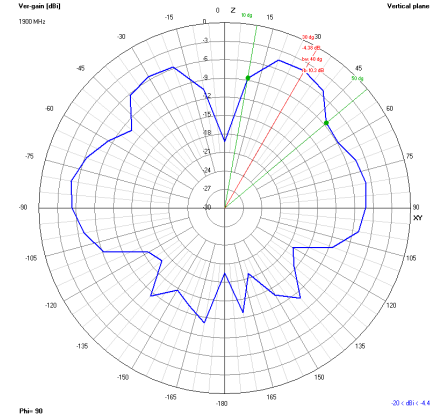
##### 1900 MHz XY



##### XZ



##### YZ





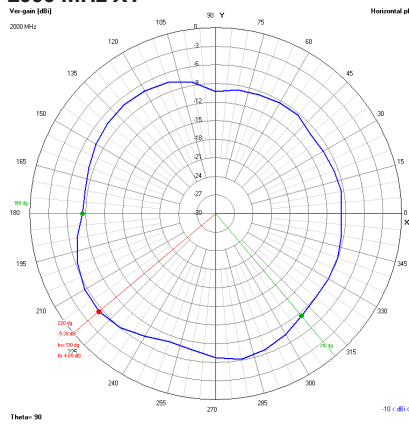


## Mike 1A

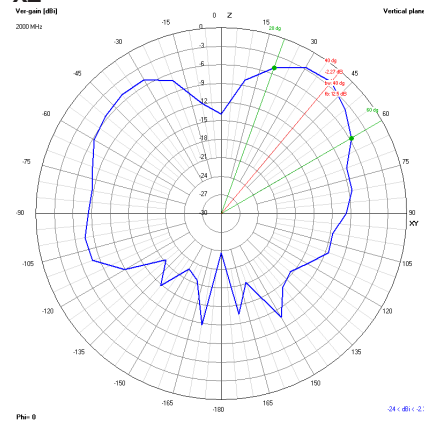
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

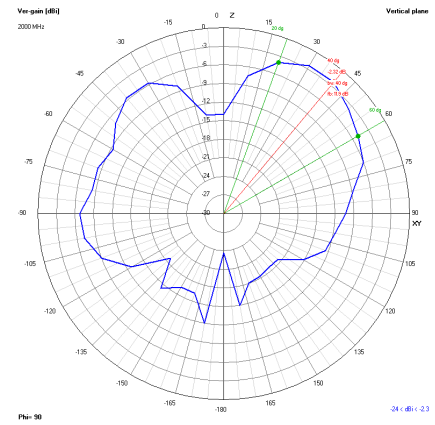
##### 2000 MHz XY



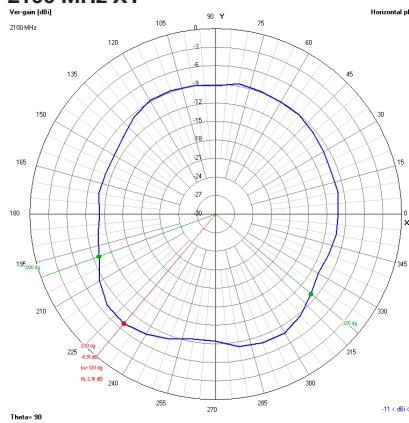
##### XZ



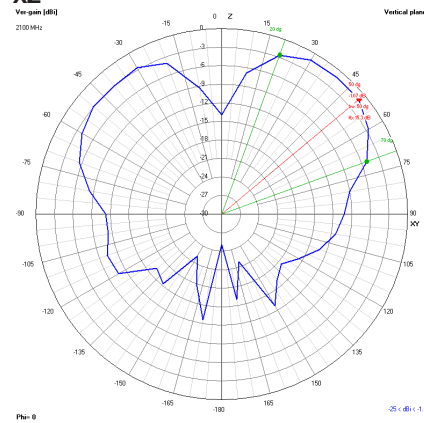
##### YZ



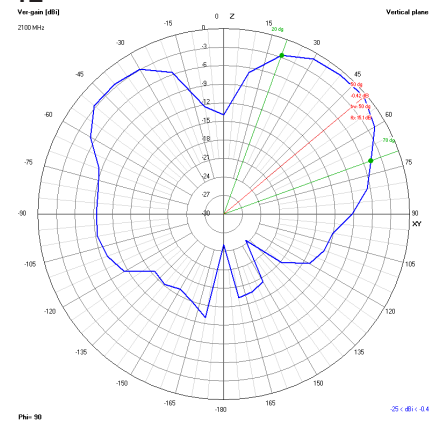
##### 2100 MHz XY



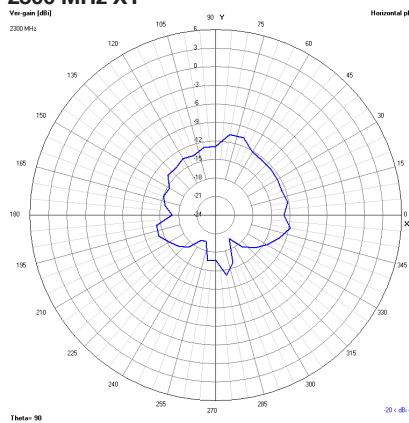
##### XZ



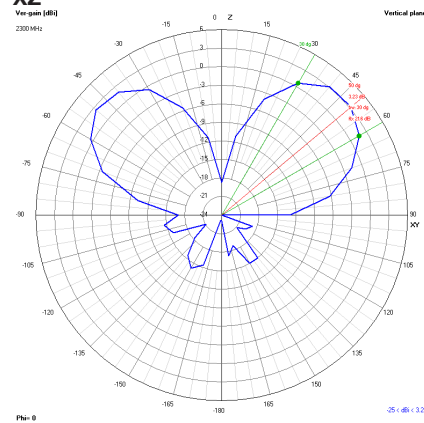
##### YZ



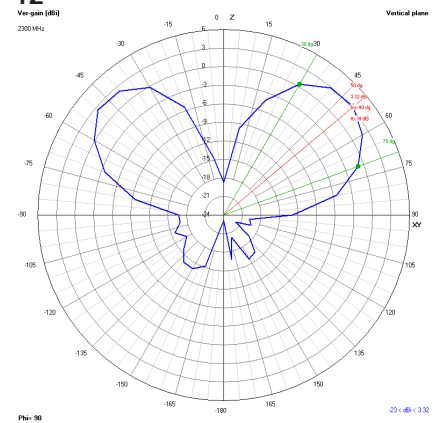
##### 2300 MHz XY



##### XZ



##### YZ



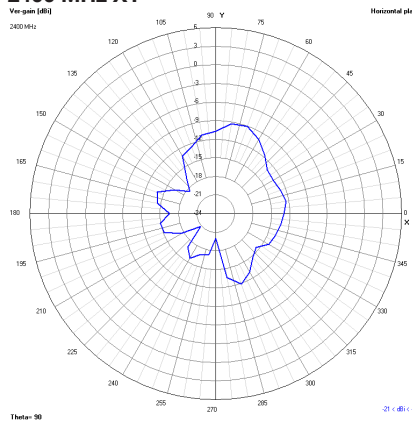


## Mike 1A

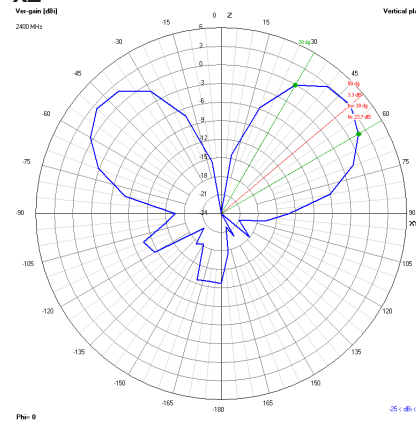
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

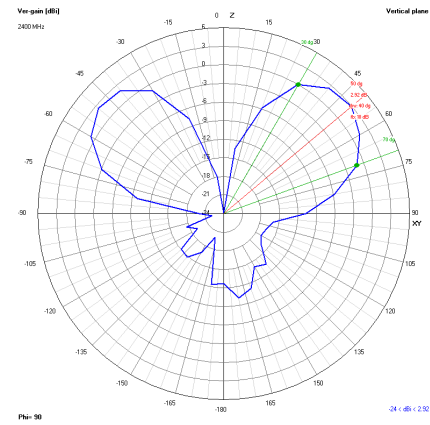
##### 2400 MHz XY



##### XZ



##### YZ



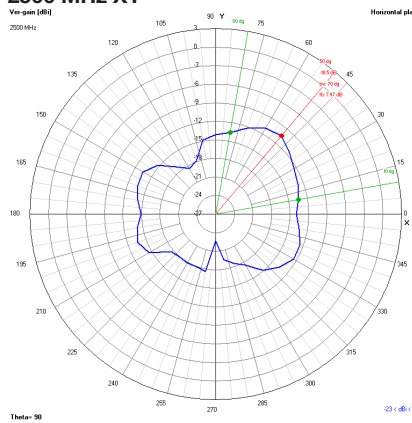
WiFi Band  
2.4 GHz

Eff %  
45.08

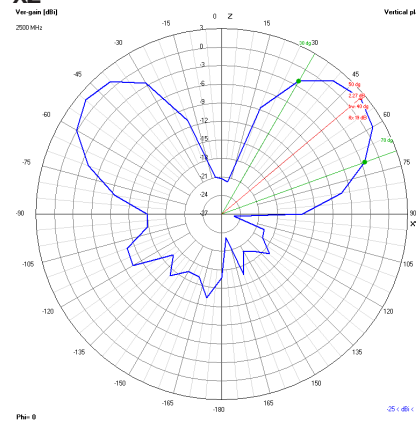
WiFi Band  
2.4 GHz

Eff %  
45.08

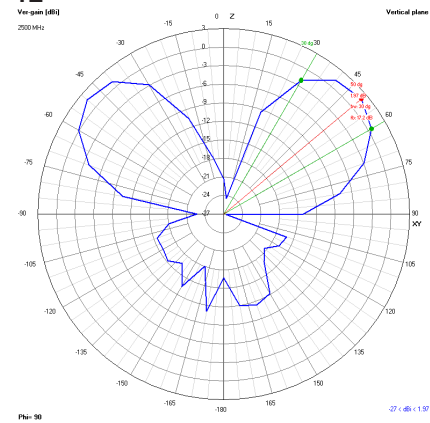
##### 2500 MHz XY



##### XZ



##### YZ



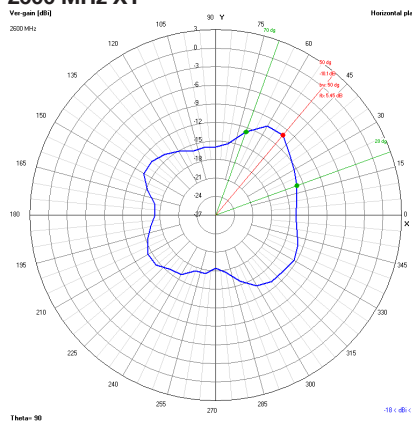
WiFi Band  
2.4 GHz

Eff %  
36.90

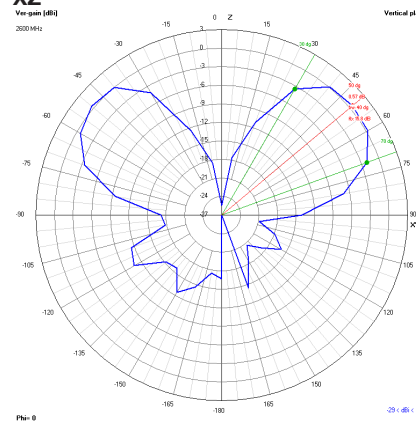
WiFi Band  
2.4 GHz

Eff %  
36.90

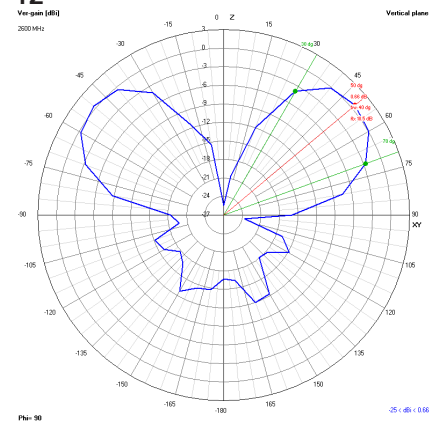
##### 2600 MHz XY



##### XZ



##### YZ



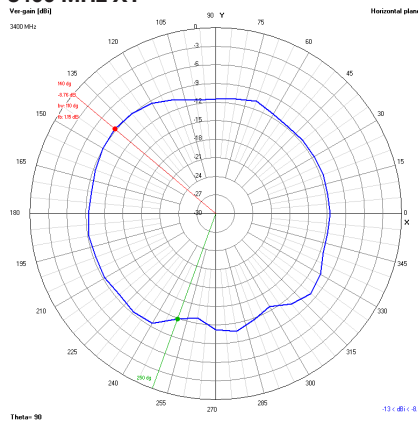


## Mike 1A

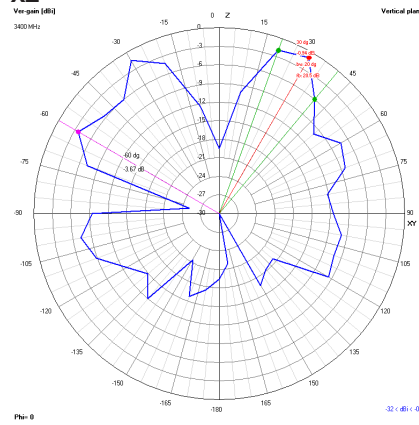
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

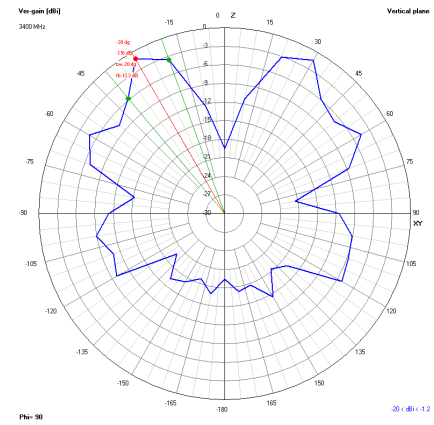
##### 3400 MHz XY



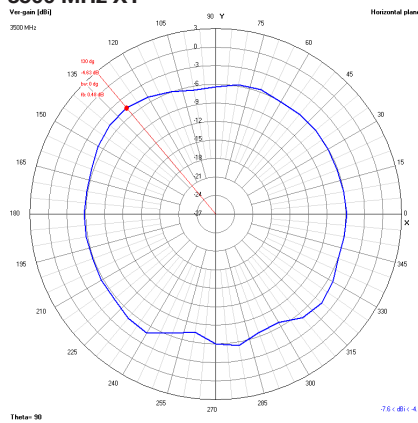
##### XZ



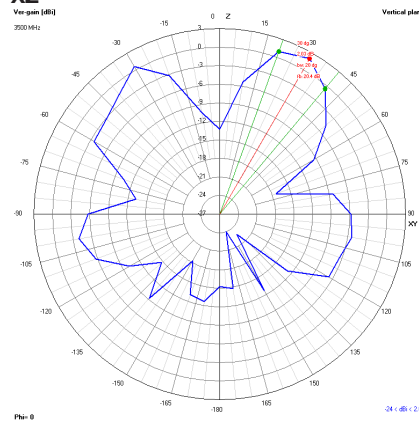
##### YZ



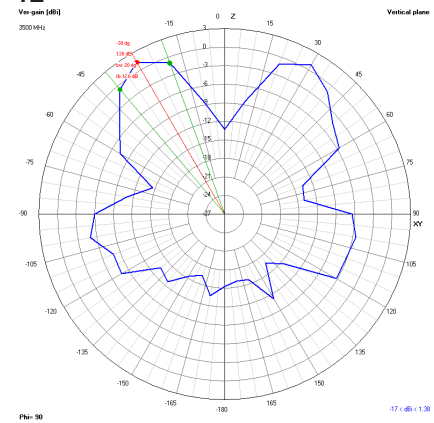
##### 3500 MHz XY



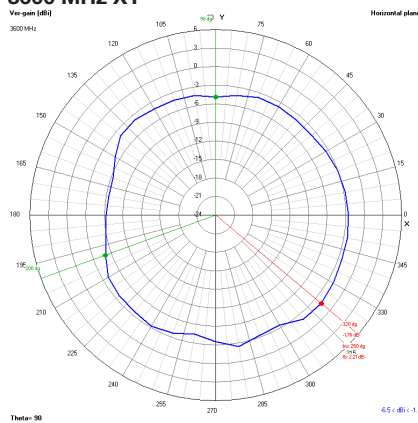
##### XZ



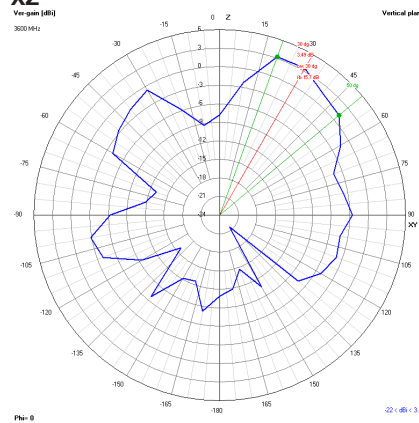
##### YZ



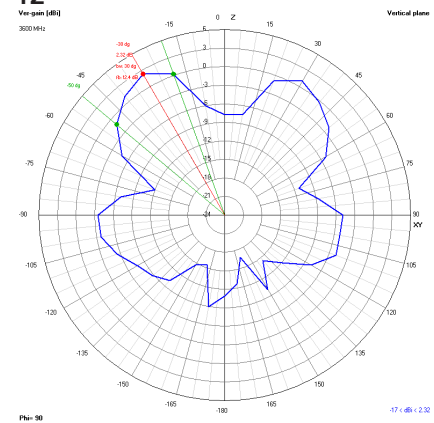
##### 3600 MHz XY



##### XZ



##### YZ



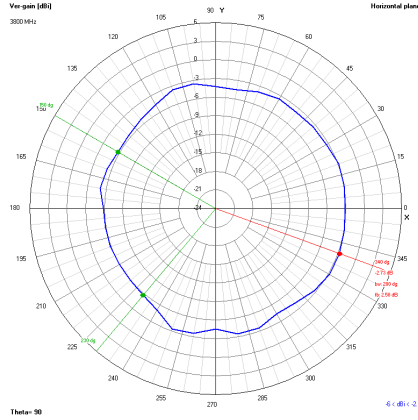


## Mike 1A

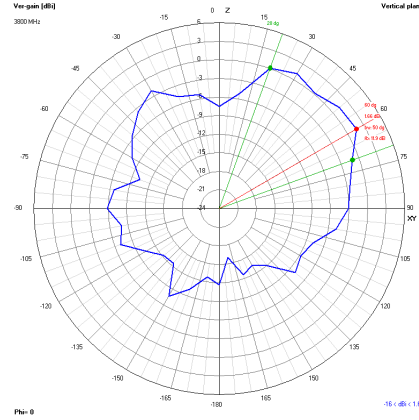
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

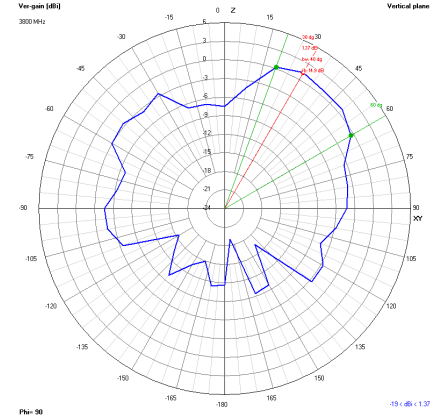
##### 3800 MHz XY



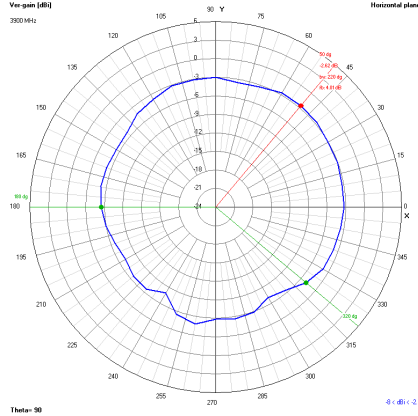
##### XZ



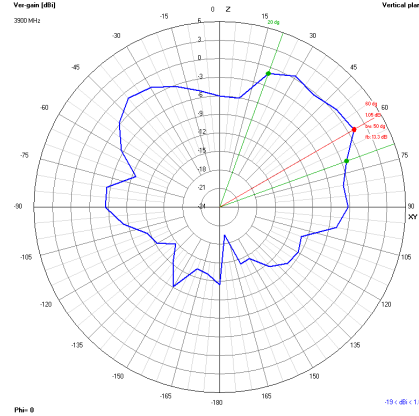
##### YZ



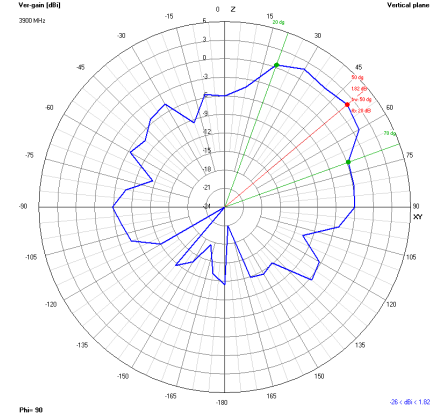
##### 3900 MHz XY



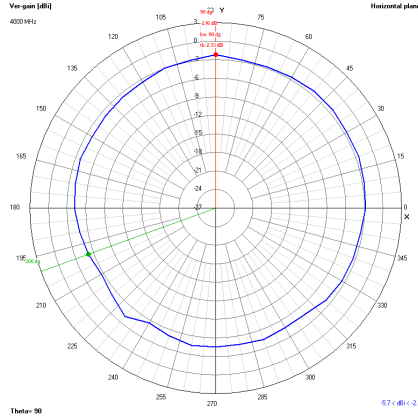
##### XZ



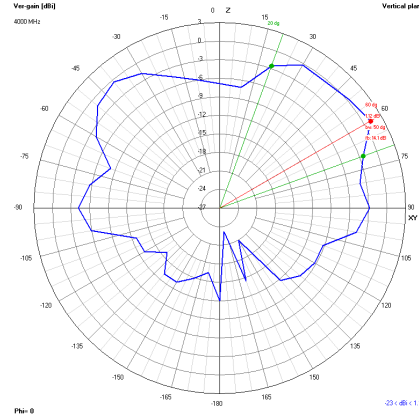
##### YZ



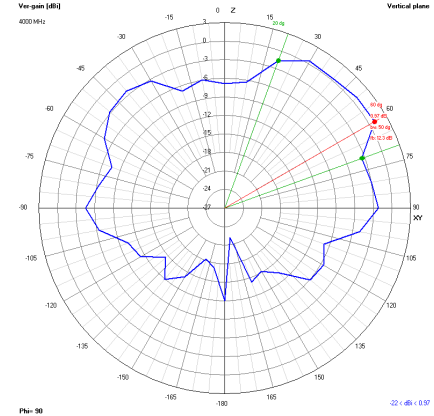
##### 4000 MHz XY



##### XZ



##### YZ



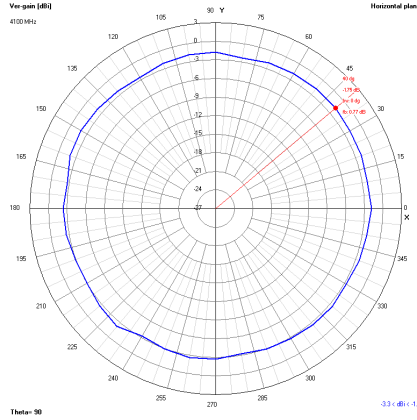


## Mike 1A

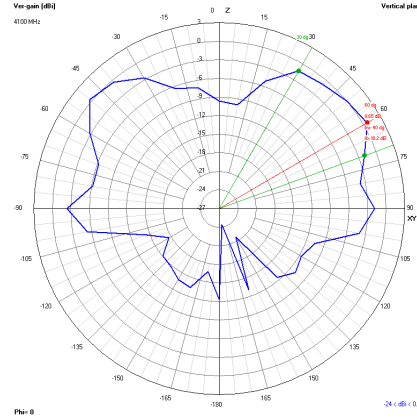
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### Radiation Plots tested with 1.2 m cable

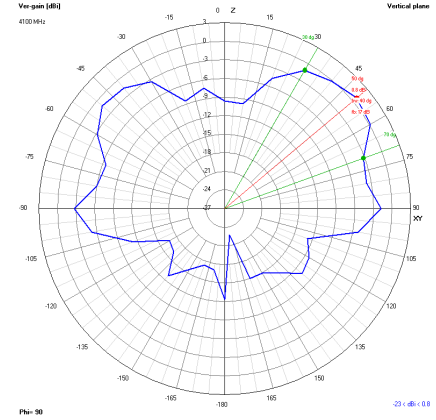
##### 4100 MHz XY



##### XZ



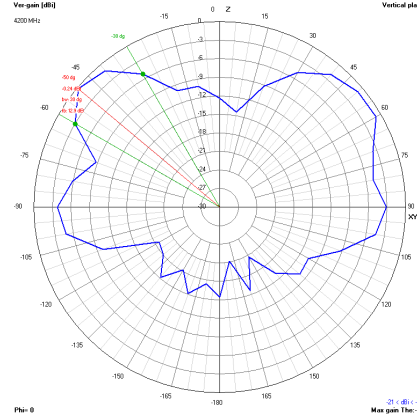
##### YZ



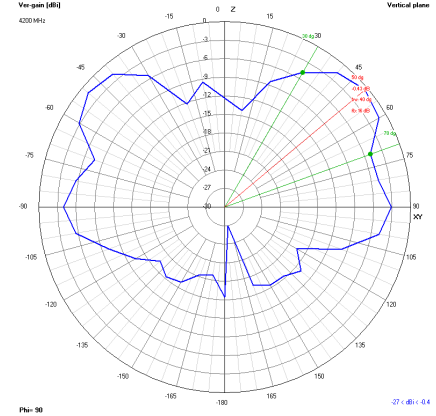
##### 4200 MHz XY



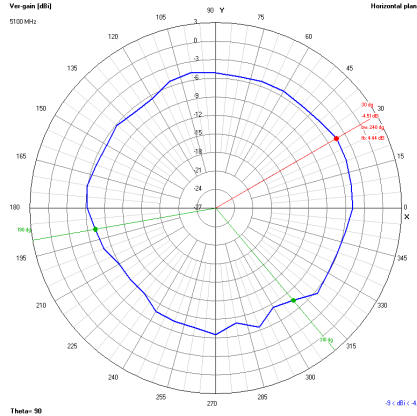
##### XZ



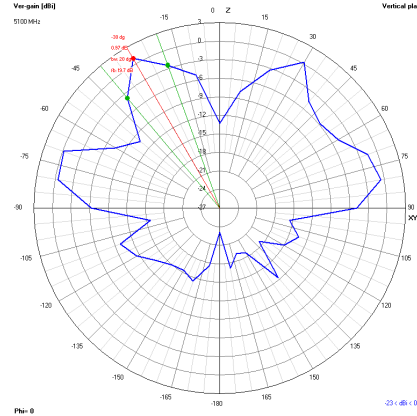
##### YZ



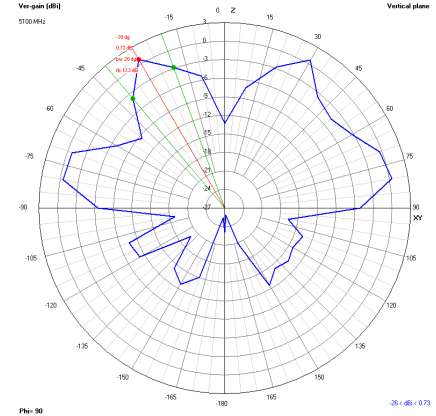
##### 5100 MHz XY



##### XZ



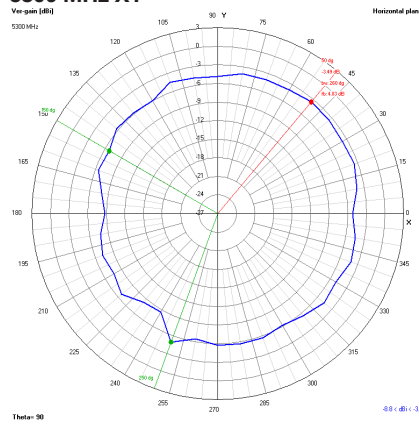
##### YZ



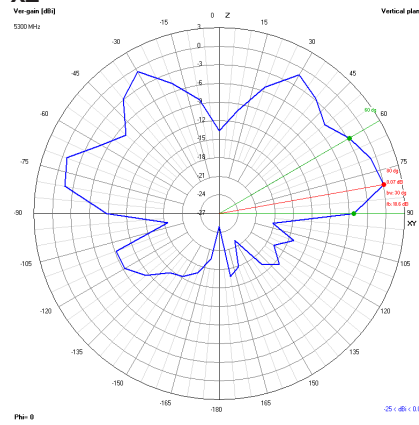


#### Radiation Plots tested with 1.2 m cable

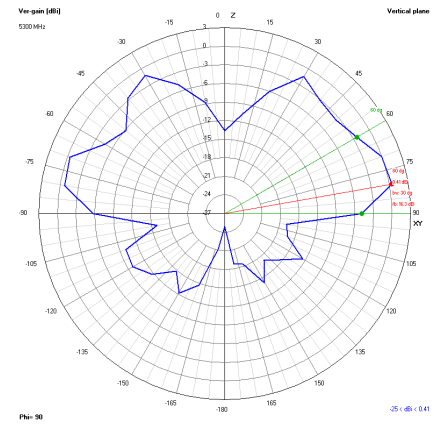
##### 5300 MHz XY



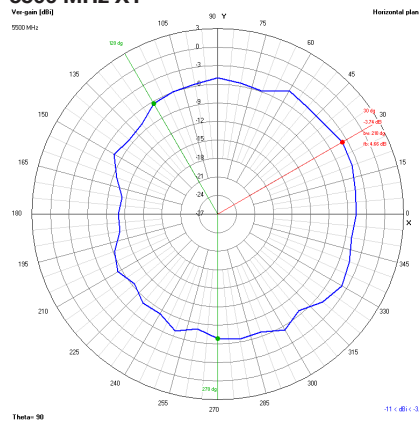
##### XZ



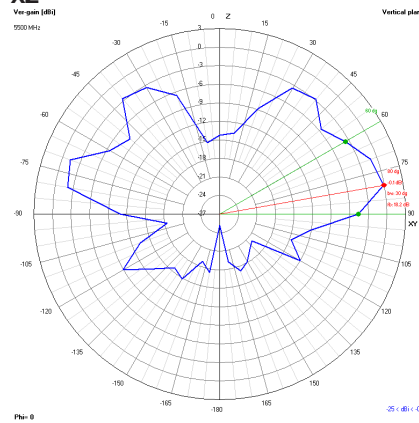
##### YZ



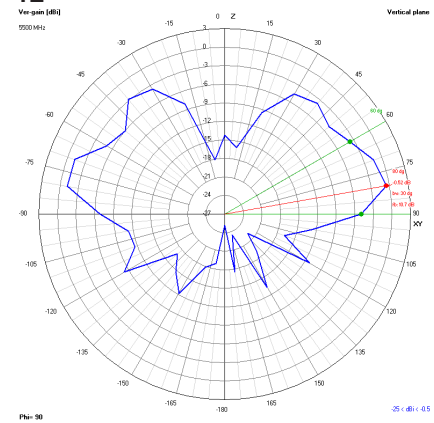
##### 5500 MHz XY



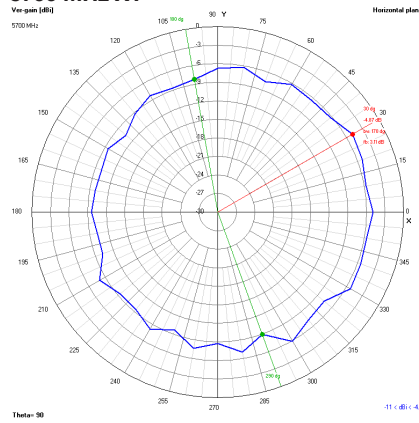
##### XZ



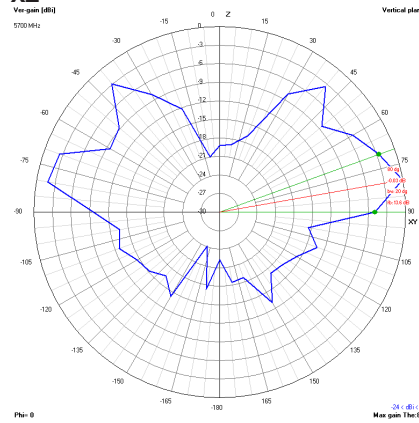
##### YZ



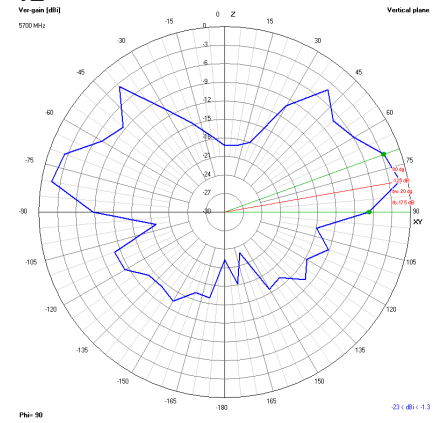
##### 5700 MHz XY



##### XZ

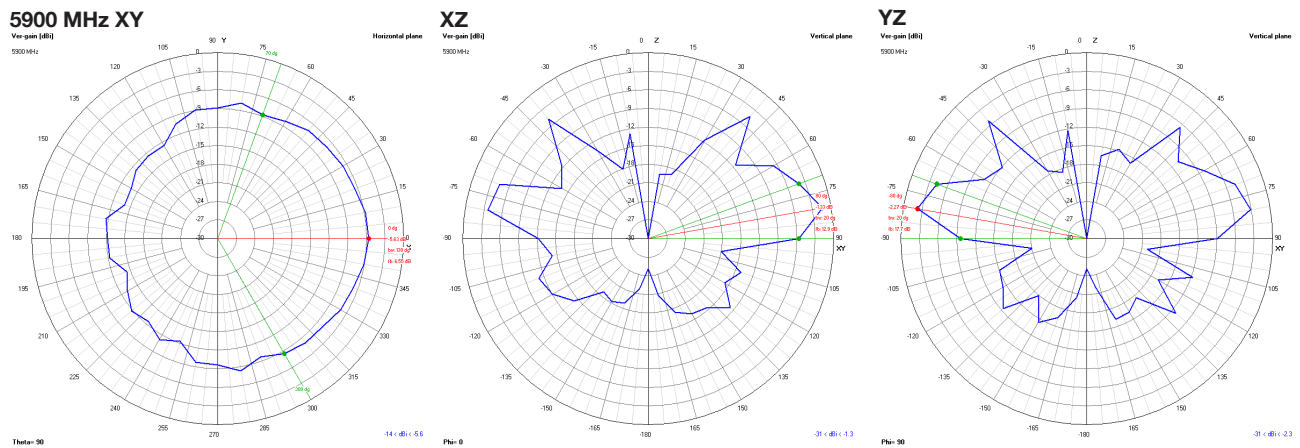


##### YZ

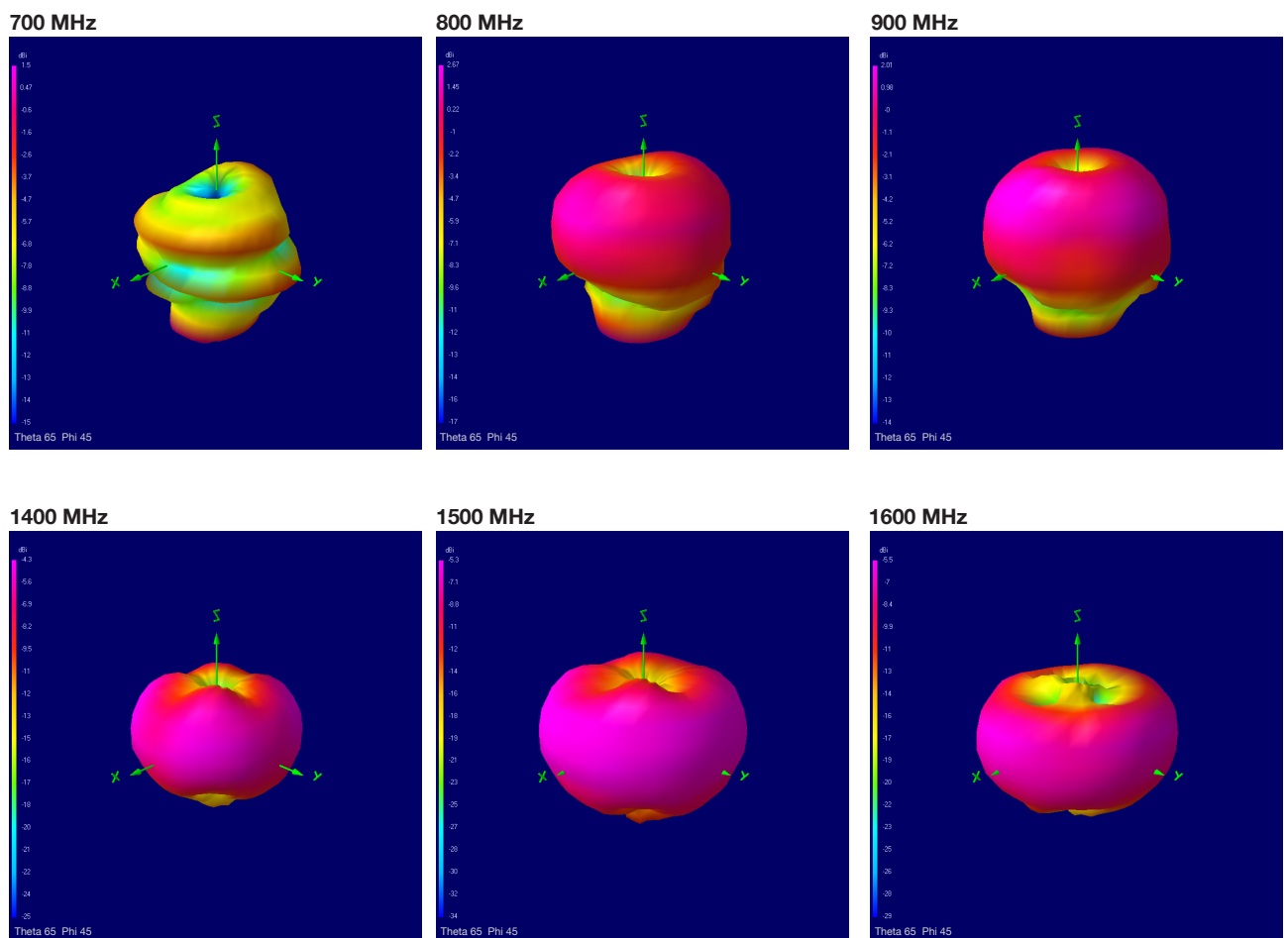




#### Radiation Plots tested with 1.2 m cable



#### 3D Radiation Plots tested with 1.2 m cable



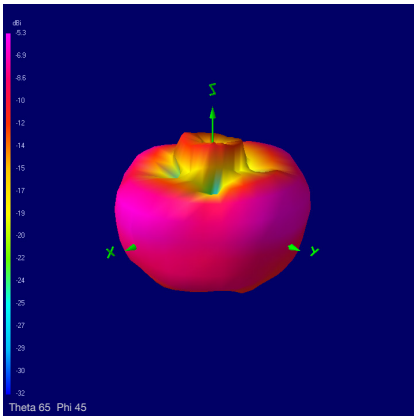


## Mike 1A

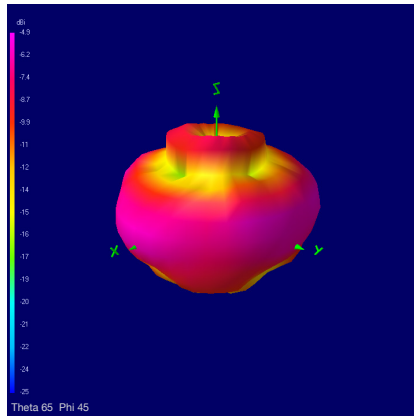
2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

### 3D Radiation Plots tested with 1 m cable

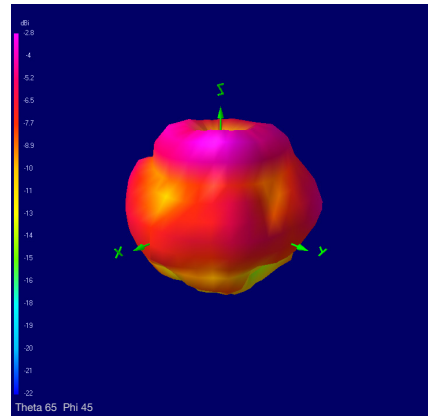
1700 MHz



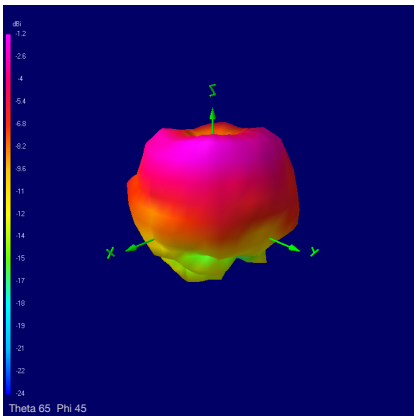
1800 MHz



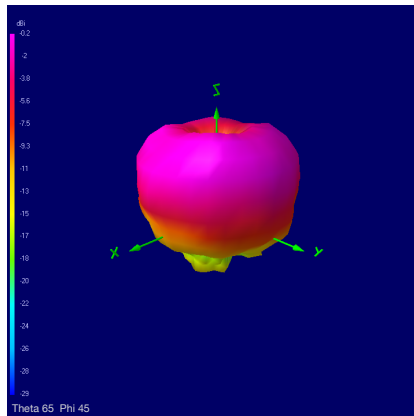
1900 MHz



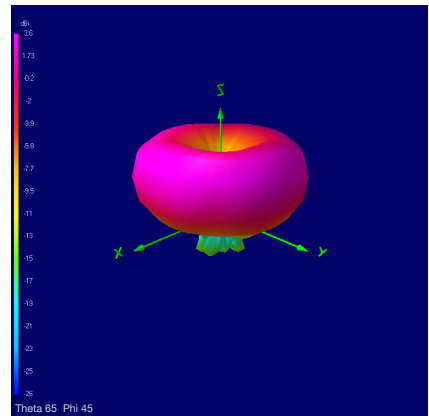
2000 MHz



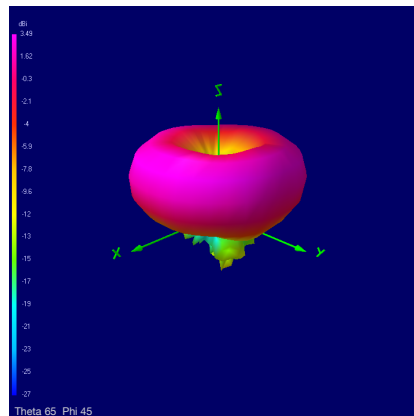
2100 MHz



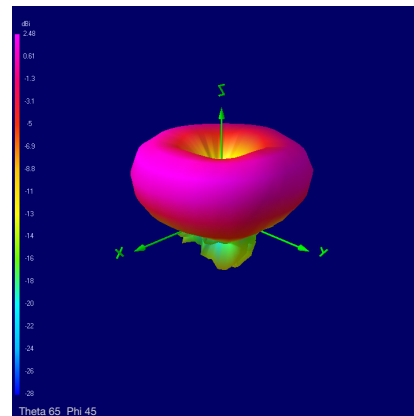
2300 MHz



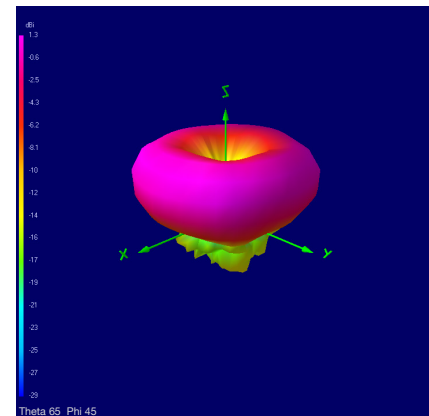
2400 MHz



2500 MHz



2600 MHz





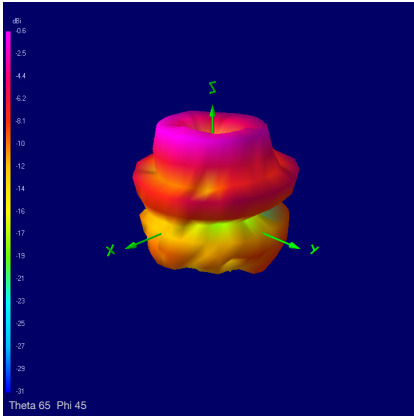


## Mike 1A

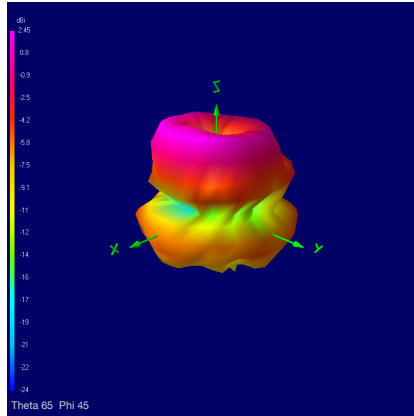
2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

### 3D Radiation Plots tested with 1 m cable

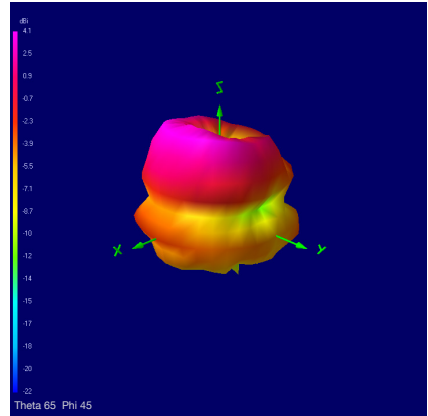
3400 MHz



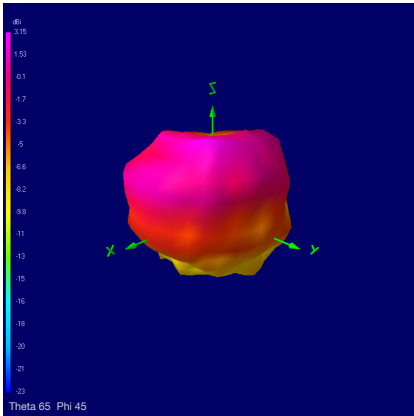
3500 MHz



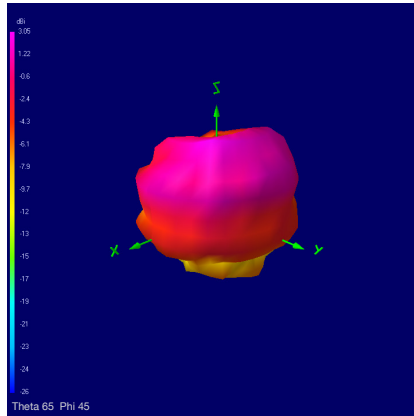
3600 MHz



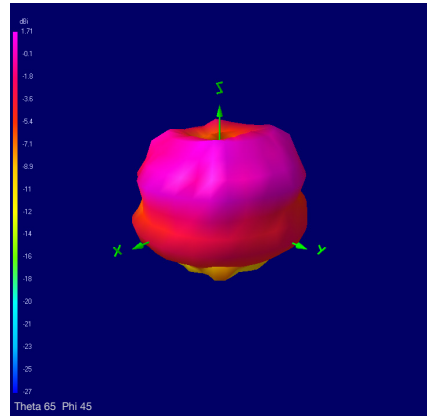
3800 MHz



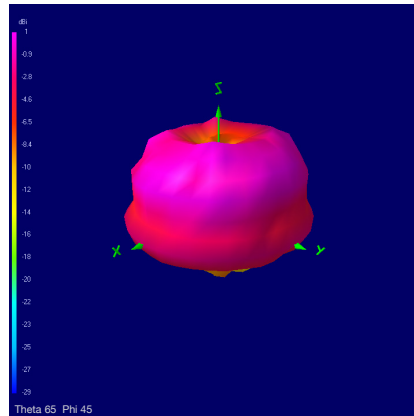
3900 MHz



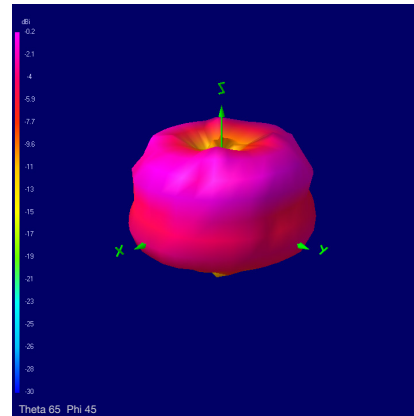
4000 MHz



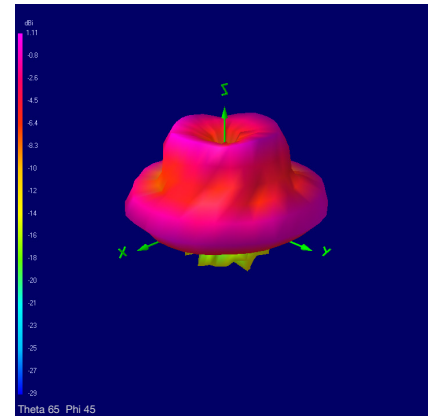
4100 MHz



4200 MHz



5100 MHz



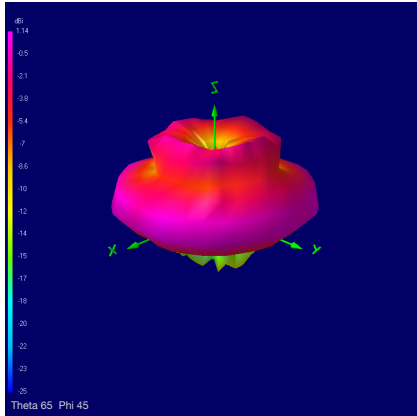


## Mike 1A

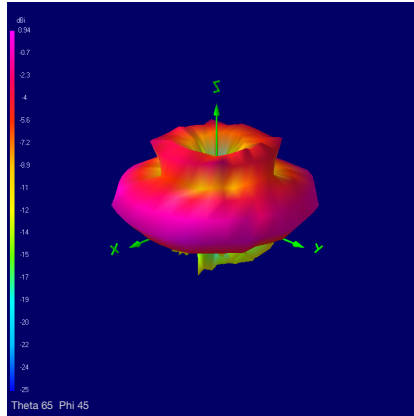
### 2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA

#### 3D Radiation Plots tested with 1 m cable

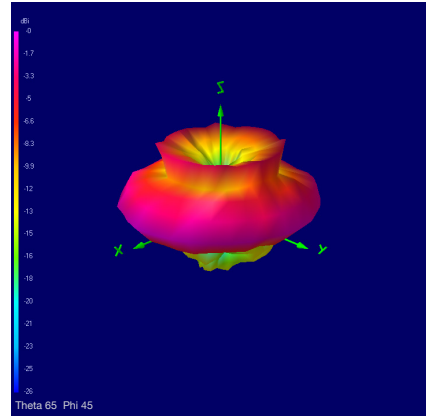
5300 MHz



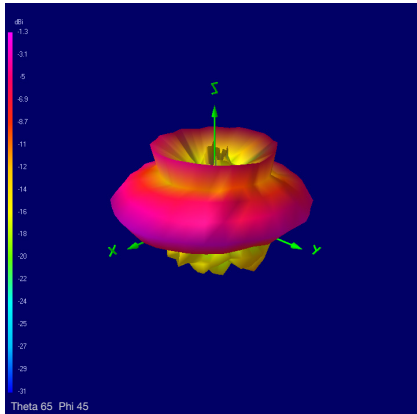
5500 MHz



5700 MHz



5900 MHz



#### Ordering Details

Part Number	Description
MIKE1A/1.2M/SMAM/S/S/20	2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA SMA MALE CONNECTOR 1.2M CABLE
MIKE1A/2.5M/SMAM/S/S/20	2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA SMA MALE CONNECTOR 2.5M CABLE
MIKE1A/2.5M/FMEF/S/S/20	2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA FME FEMALE CONNECTOR 2.5M CABLE
MIKE1A/5M/FMEF/S/S/20	2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA FME FEMALE CONNECTOR 5M CABLE
MIKE1A/5M/SMAM/S/S/20	2G/3G/4G/5G & WiFi STUBBY MAGMOUNT ANTENNA SMA MALE CONNECTOR 5M CABLE

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