

Antenna spec

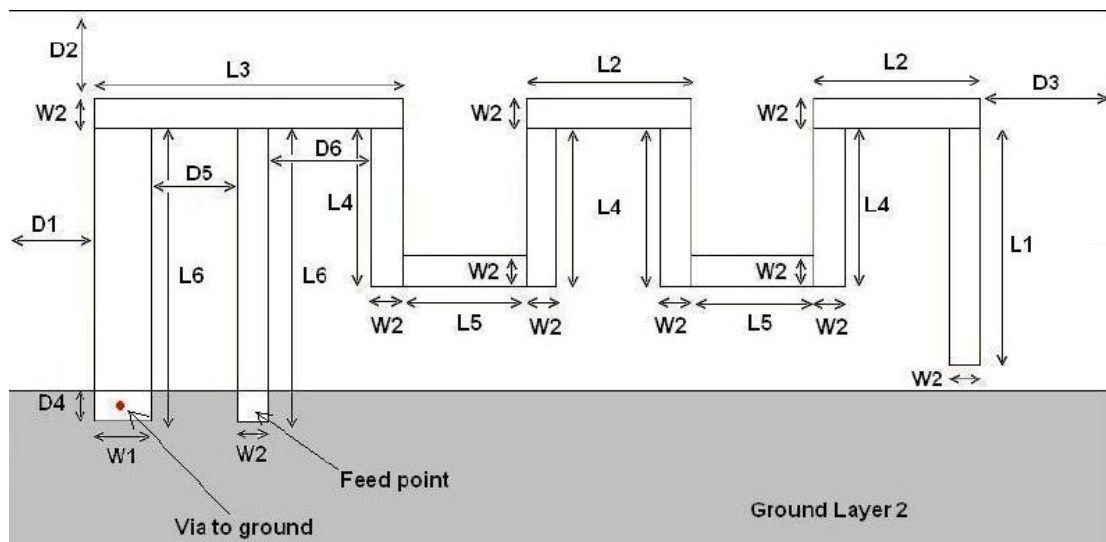
FCC ID:2BM95-IP02

1. Antenna Description:

Antenna type	PCB Antenna
Model	AN043
Frequency range	2400MHz~2500MHz
Manufacturer	Hangzhou Tuya Information Technology Co.,Ltd
Address	Room 701,Building 3,More Center,No.87 GuDun Road.Hangzhou, Zhejiang,China

2. Antenna Photo:

Unit:mm



L1	3.94 mm
L2	2.70 mm
L3	5.00 mm
L4	2.64 mm
L5	2.00 mm
L6	4.90 mm
W1	0.90 mm
W2	0.50 mm
D1	0.50 mm
D2	0.30 mm
D3	0.30 mm
D4	0.50 mm
D5	1.40mm
D6	1.70 mm

3. Antenna Efficiency and Gain:

Frequency(MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-3.84	2.31	32.80%
2410	-3.51	2.15	39.52%
2420	-3.87	1.03	57.29%
2430	-3.61	3.35	38.00%
2440	-3.80	4.14	38.94%
2450	-4.06	2.88	32.84%
2460	-3.68	1.16	44.36%
2470	-4.01	5.30	34.22%
2480	-3.88	1.47	59.89%
2490	-3.83	2.81	42.97%
2500	-3.99	4.21	50.04%

4. 2D Radiation Pattern

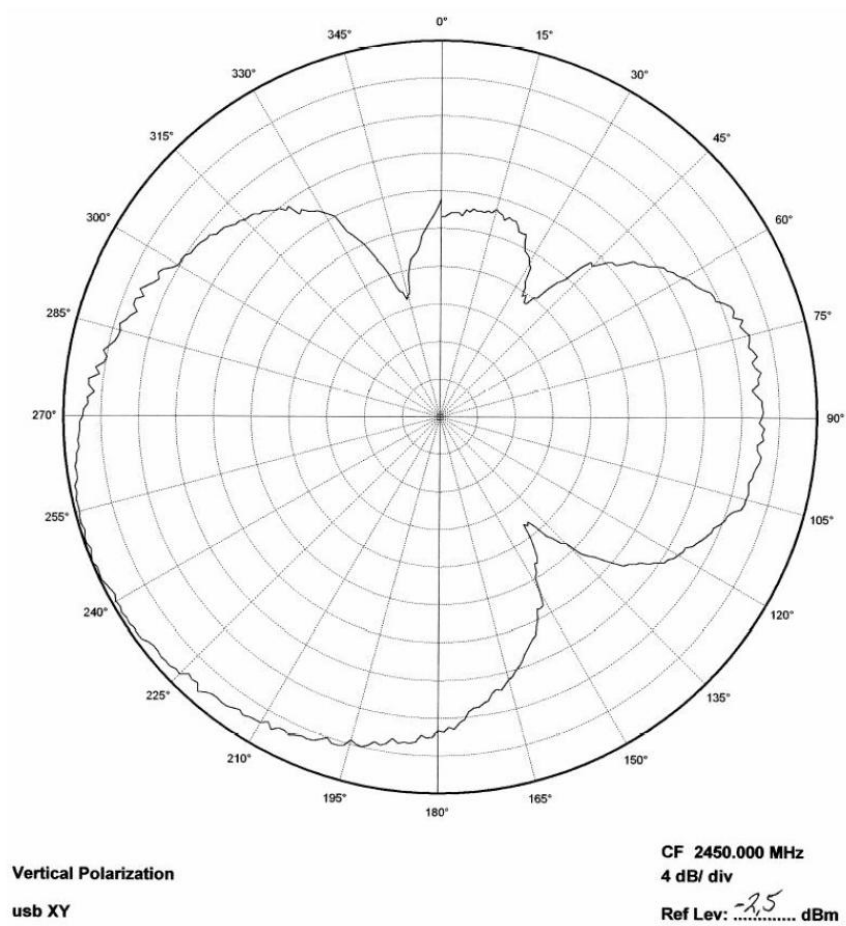
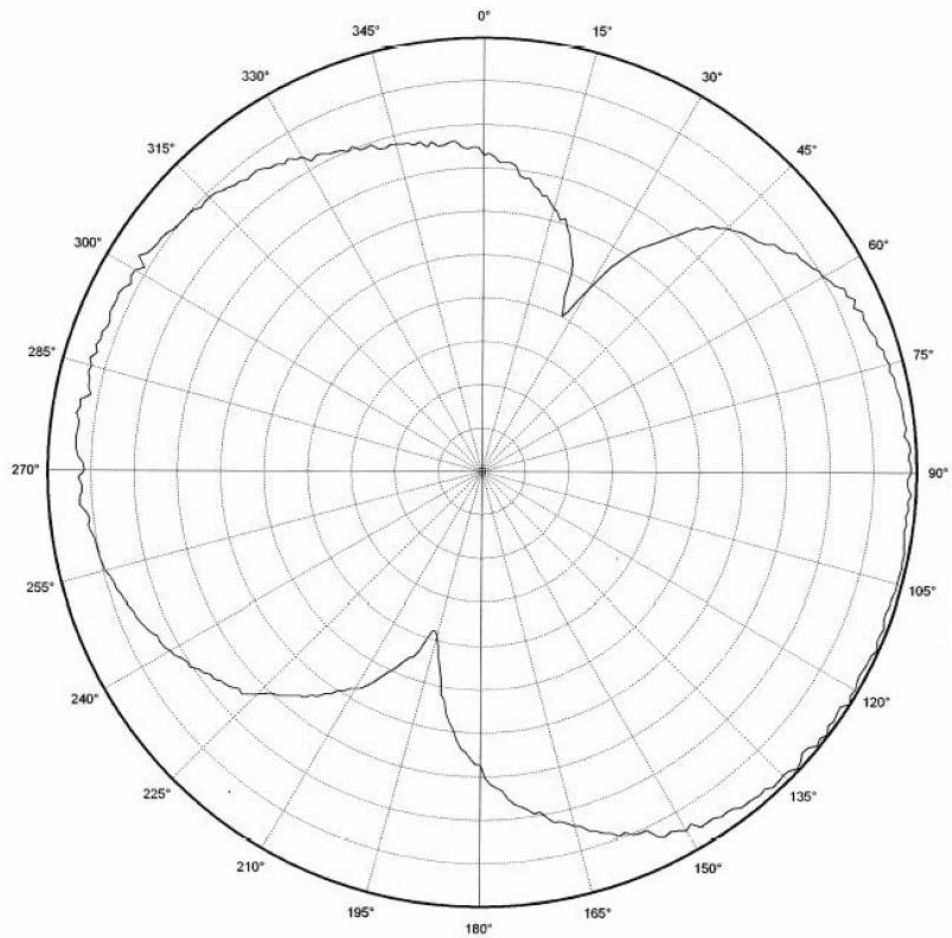


Figure 7: USB Dongle XY Plane



Horizontal Polarization
usb XY

CF 2450.000 MHz
5 dB/ div
Ref Lev: 4.5 dBm

Figure 8: USB Dongle XY Plane

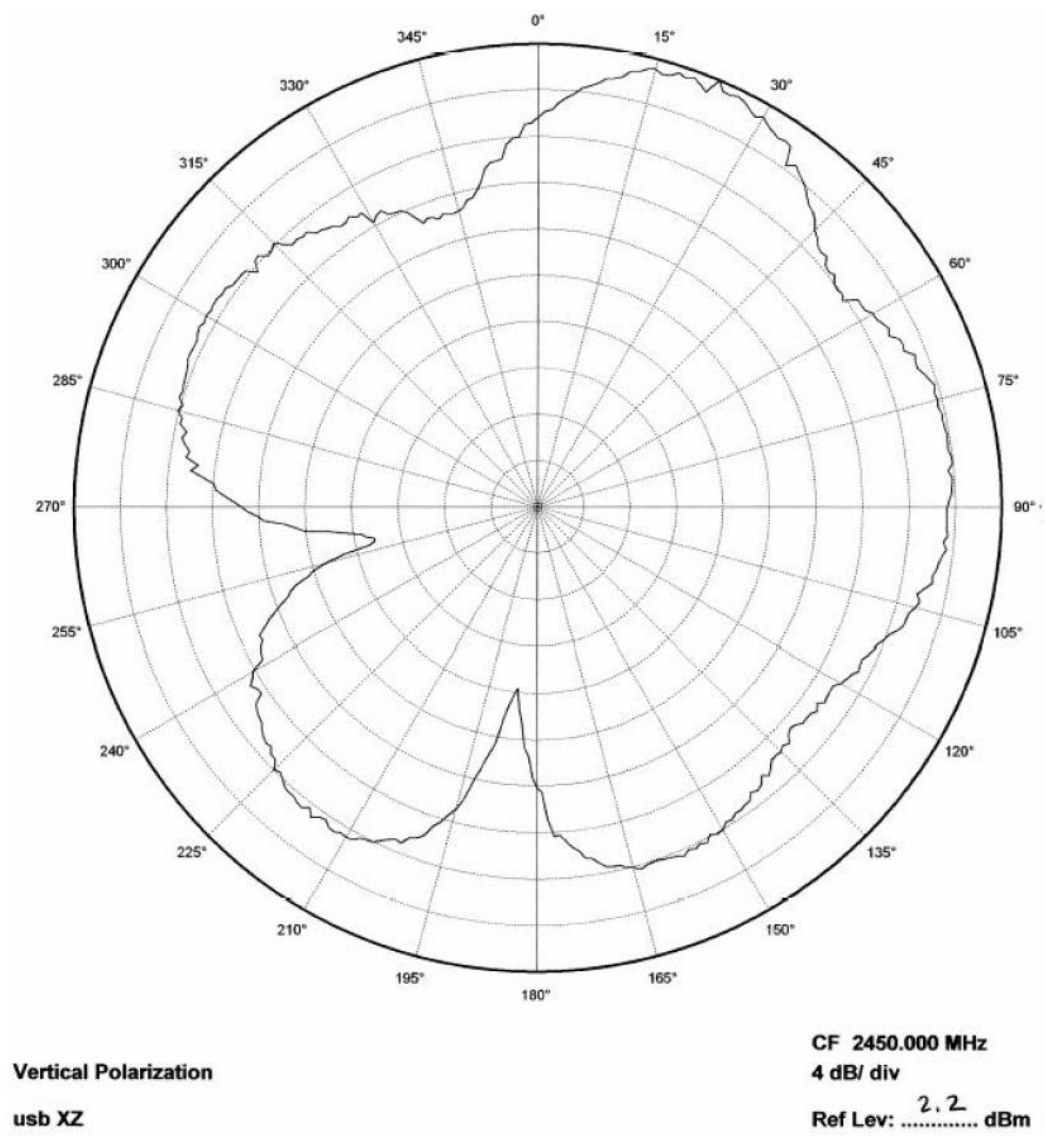


Figure 9: USB Dongle XZ Plane

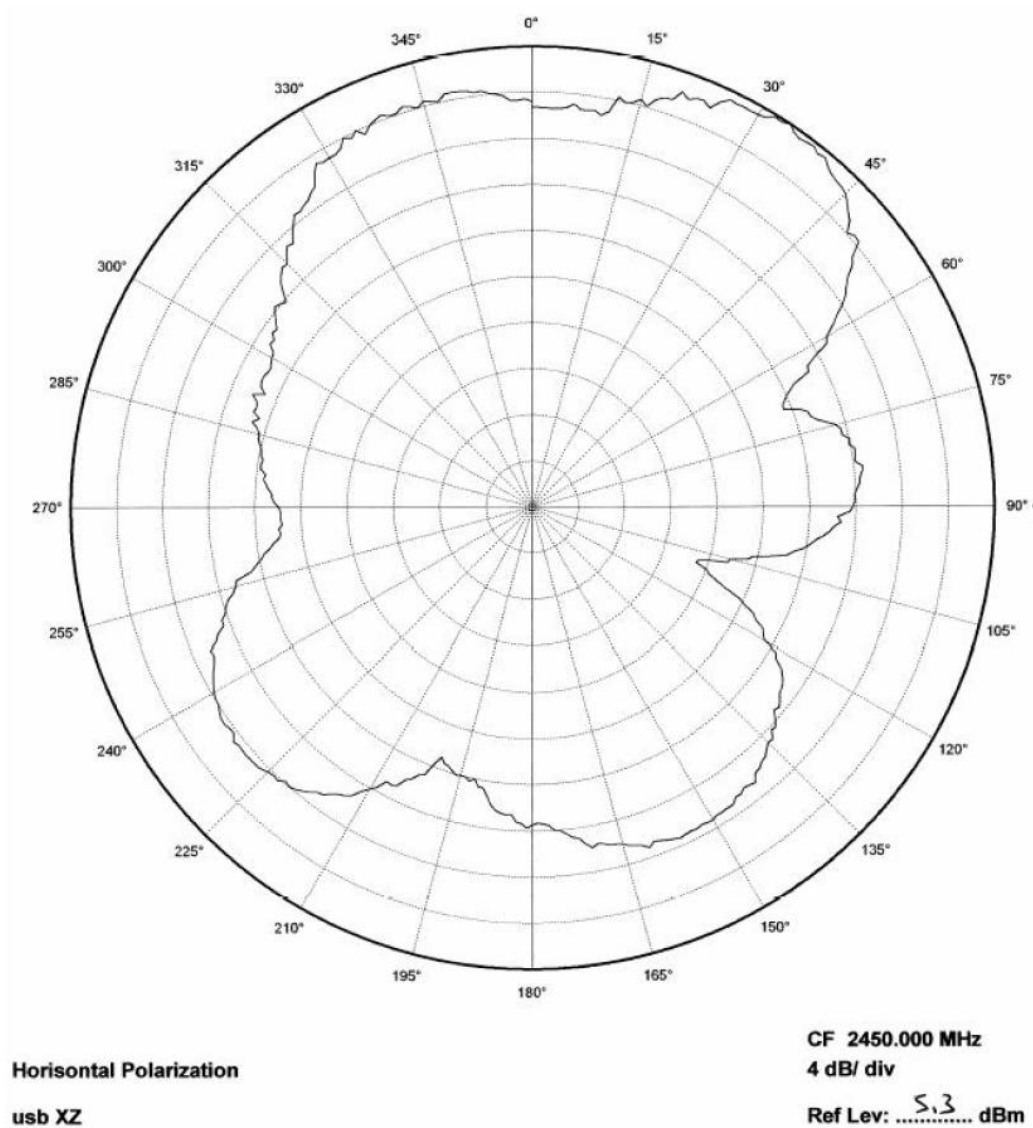


Figure 10: USB Dongle XZ Plane

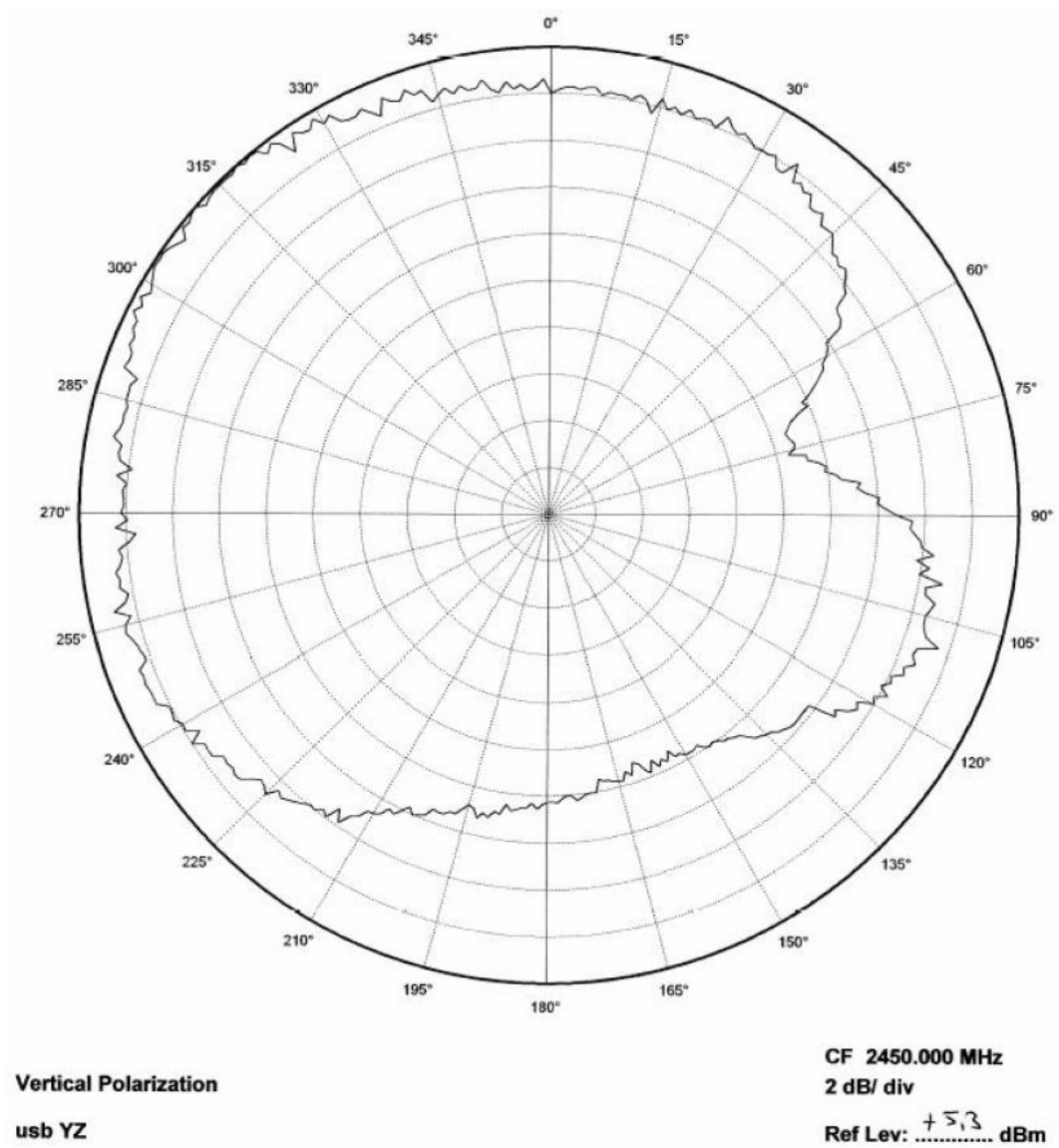


Figure 11: USB Dongle YZ Plane

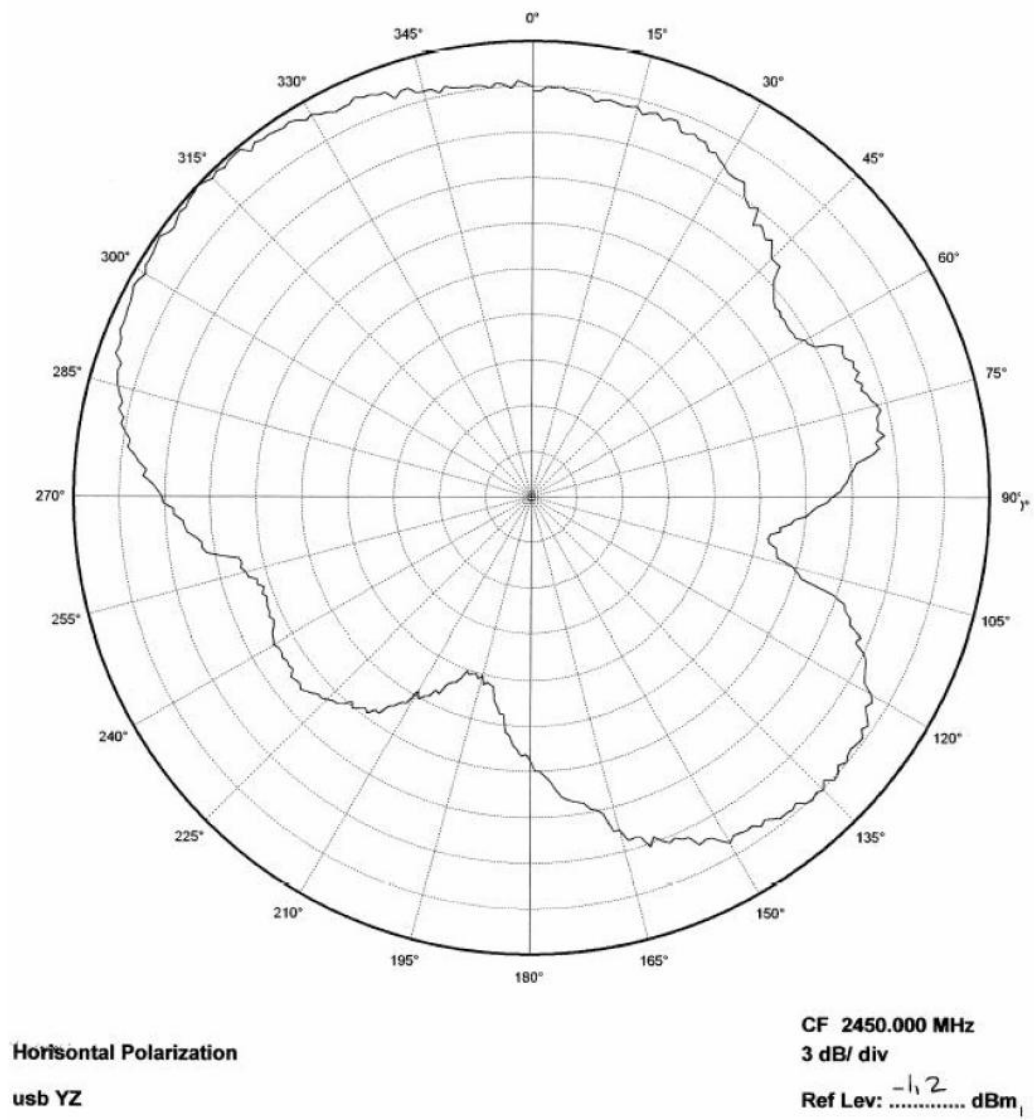
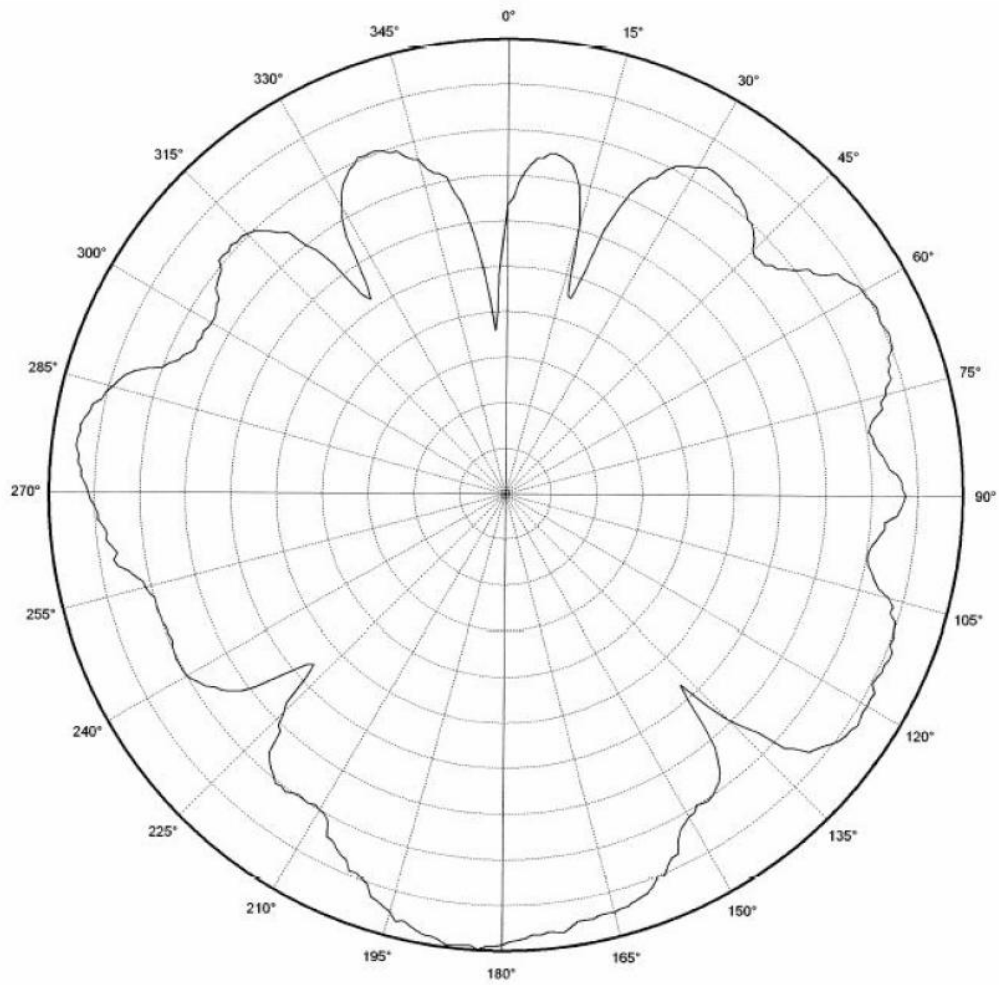


Figure 12: USB Dongle YZ Plane



Vertical Polarization

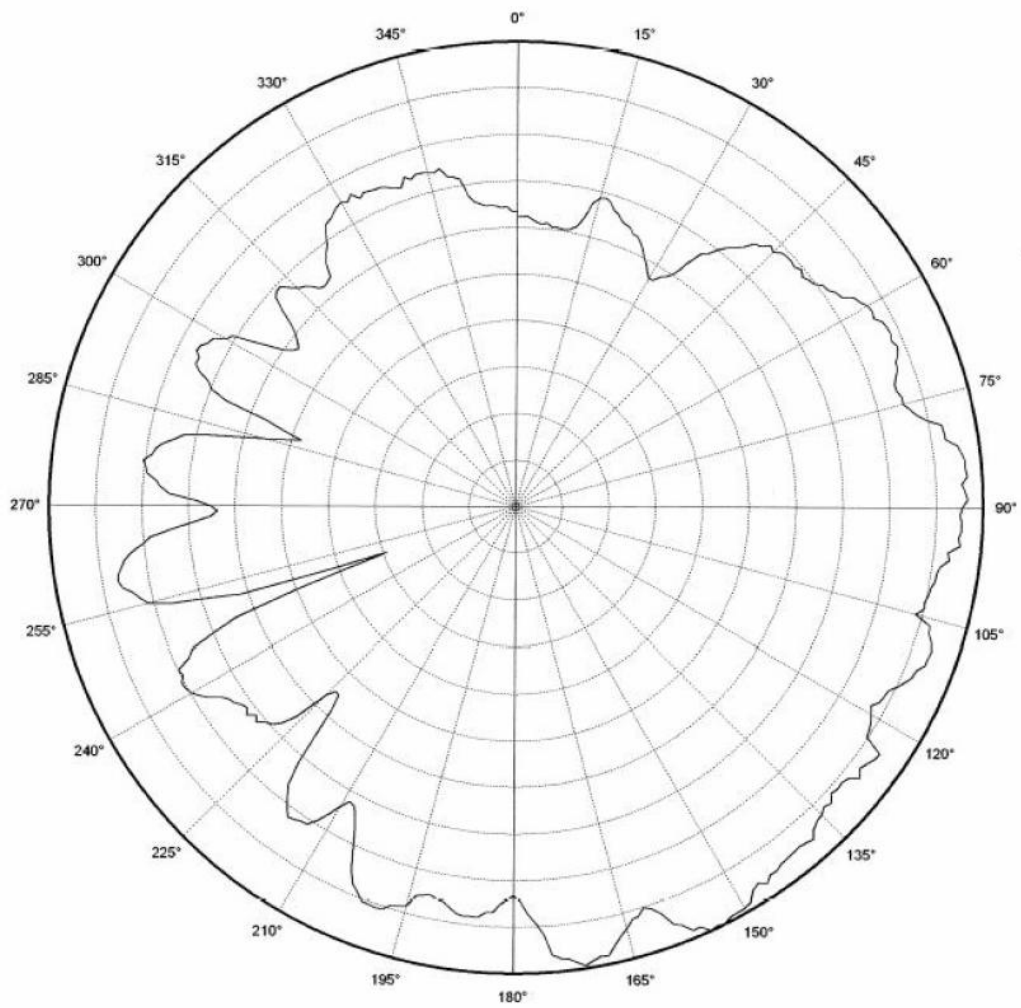
Laptop USB XY

CF 2450.000 MHz

5 dB/ div

Ref Lev: ^{-2.0}..... dBm

Figure 13: USB Dongle in Laptop XY Plane



Horizontal Polarization

Laptop USB XY

CF 2450.000 MHz

4 dB/ div

Ref Lev: 3.3 dBm

5. 3D Radiation Pattern

