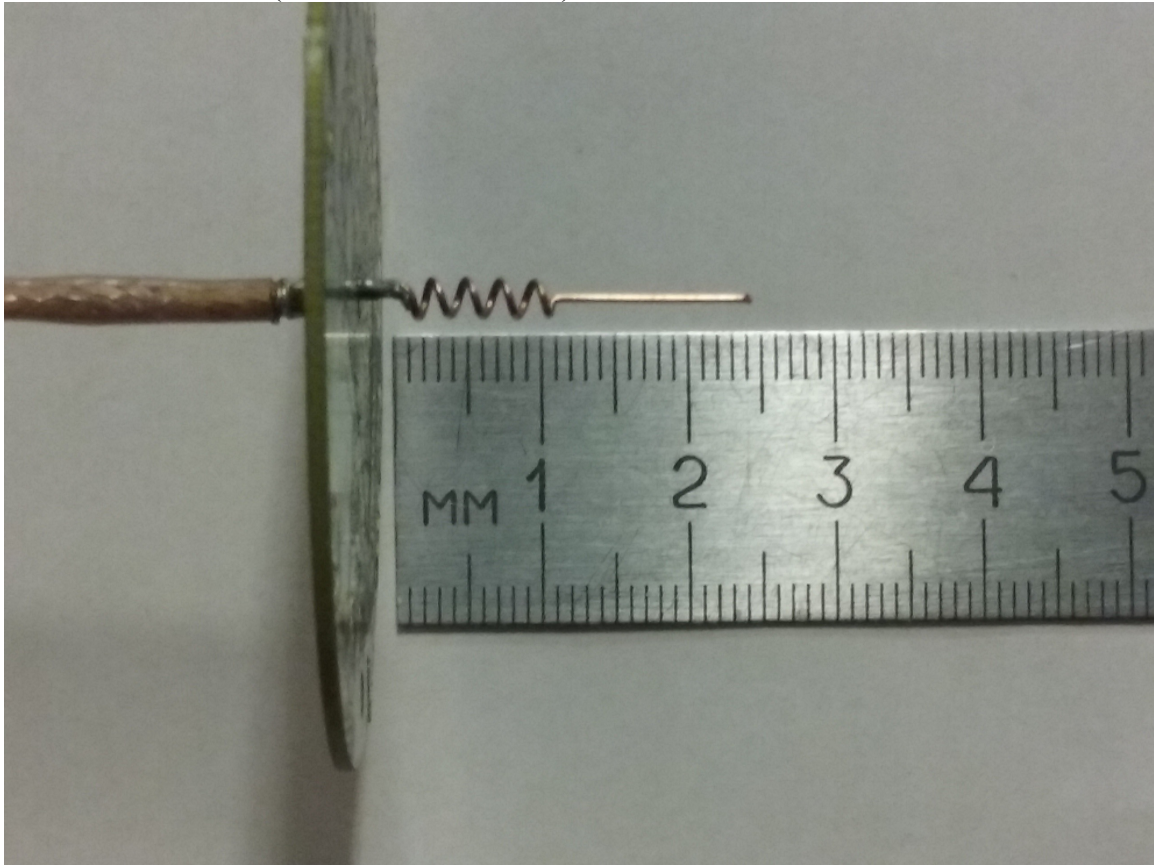


Deeper antenna prototype #1

View of the antenna (w/o case and Radome)



All measurement below made with original case and Radome of the device.

1. VSWR

1.1 Prototype #1 (Cable connected direct to antenna, $n=4$, $L=24$ mm) with case and Radome

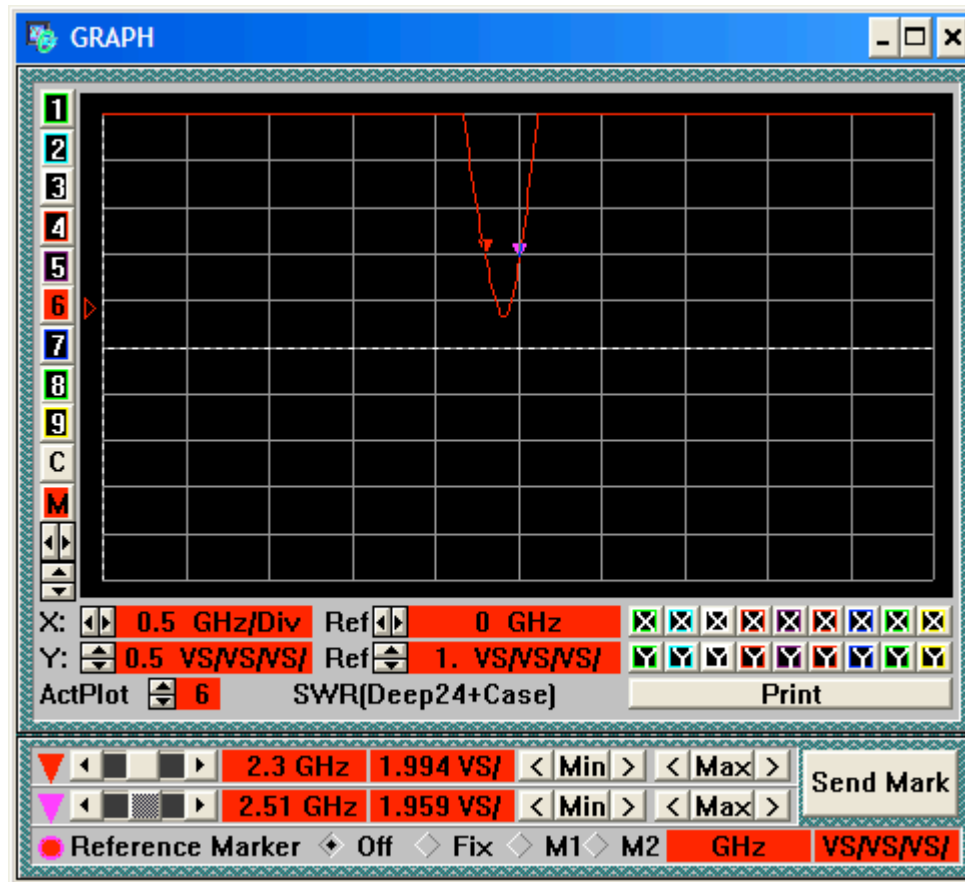


Fig.1. $\text{SWR} \leq 2.0:1$ at $F=2.3 - 2.51$ GHz. Min SWR= 1.33 at $F=2.41$ GHz.

1.2. VSWR prototype #2 (Cable connected to 8 mm feed line ($R=0$ Ohm) and to antenna, $n=4$, $L=24$ mm) with case and Radome

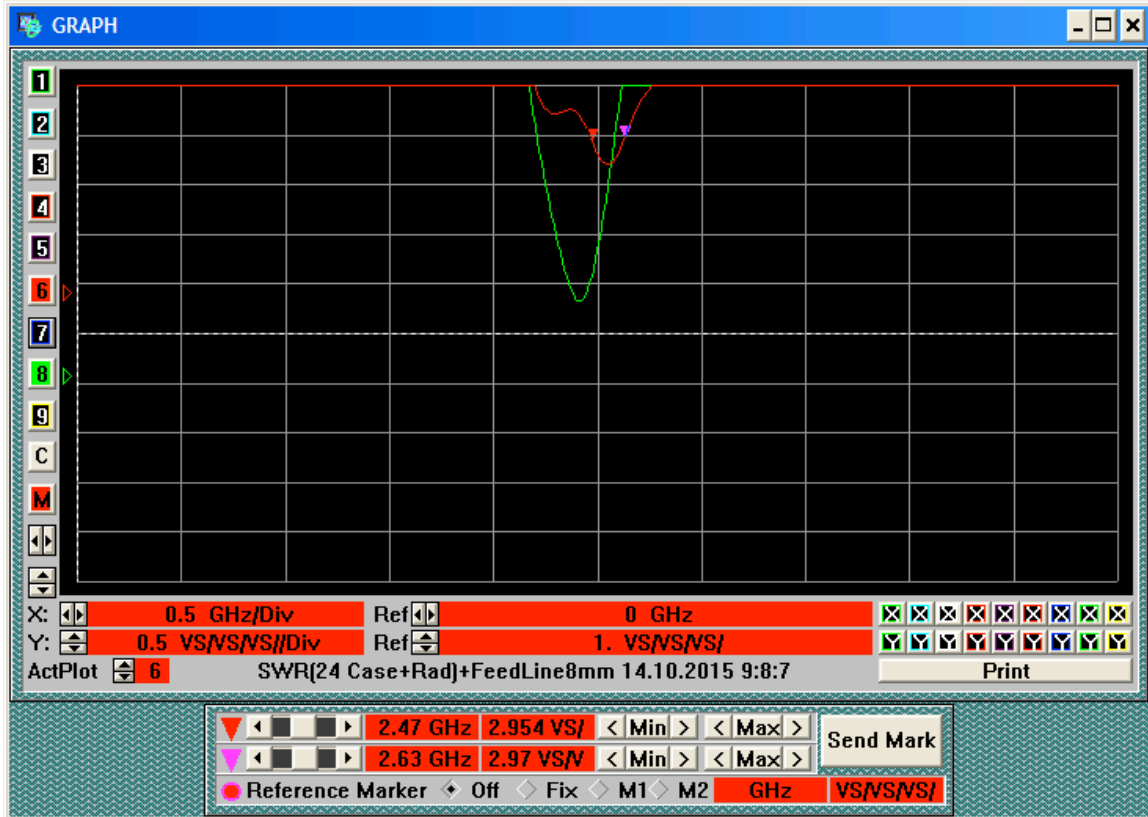


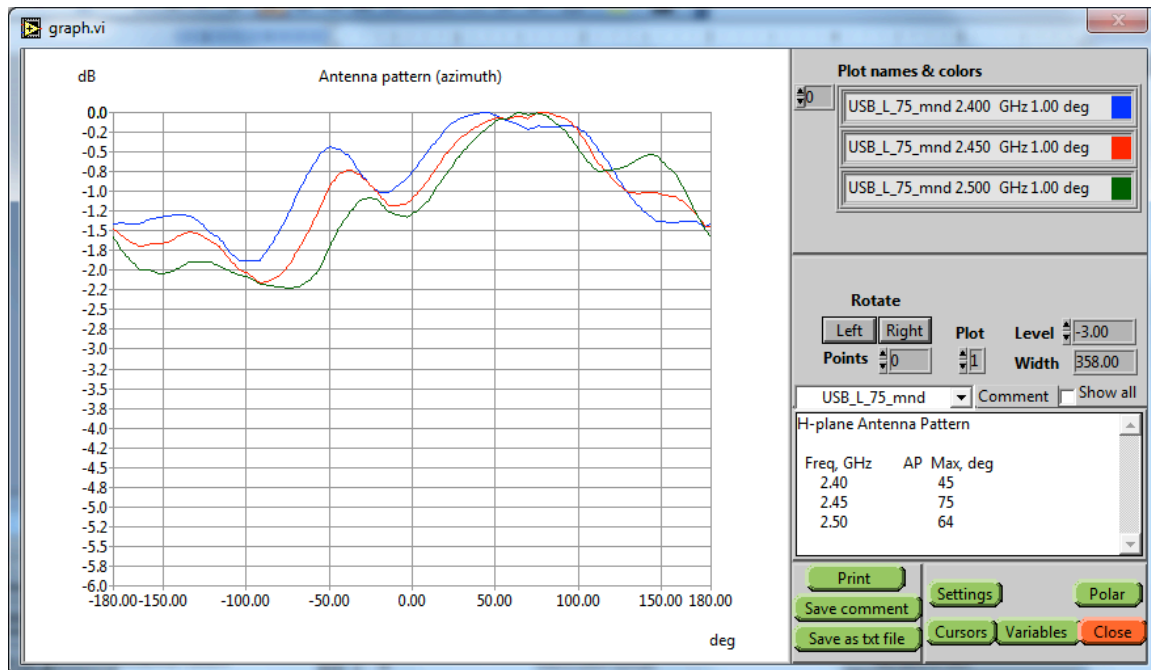
Fig.2. $SWR \leq 3.0:1$ at $F=2.47-2.63$ GHz. Min $SWR=2.7$ at $F=2.55$ GHz.

2. Antenna Pattern

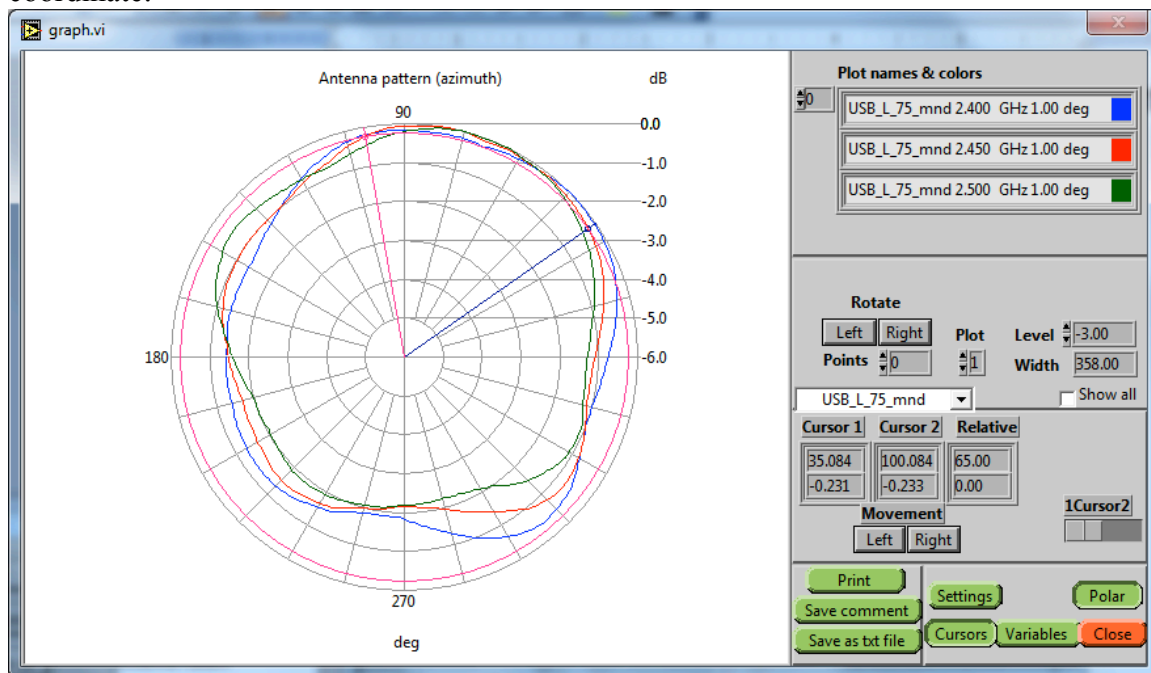
Screw at $\Phi = 90$ deg (XY plane), $\Theta = 45$ deg (ZX plane) USB – left.

2.1. H-plane Antenna Pattern (XY Plane, $\Theta = 90$ deg):

Cartesian coordinate:



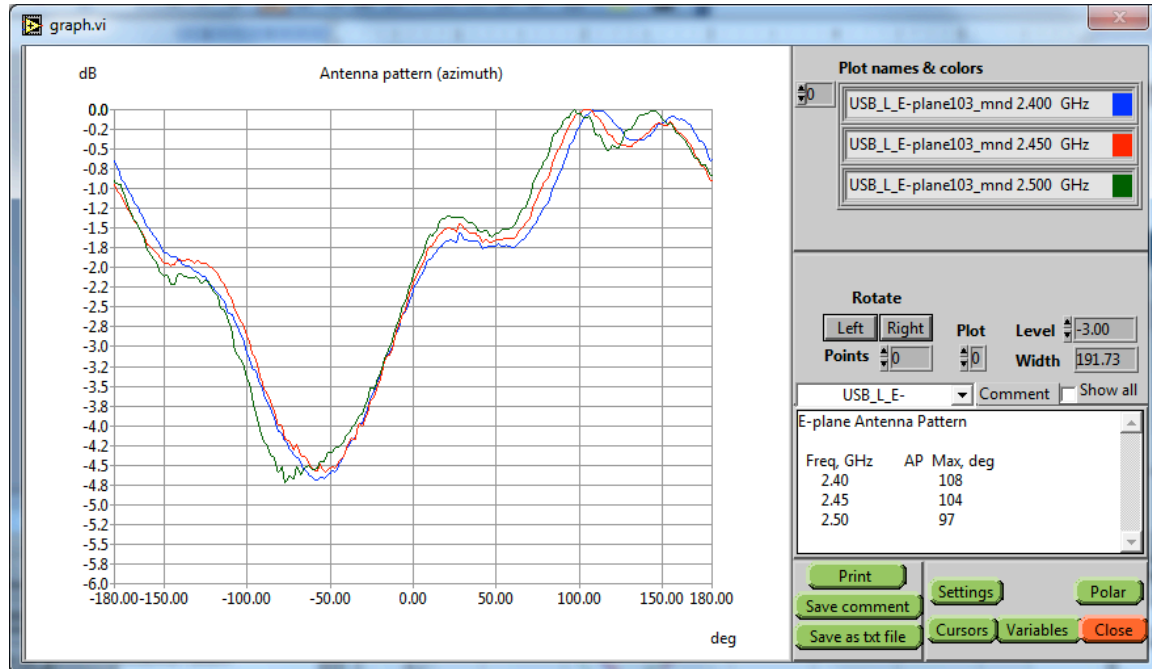
Polar
coordinate:



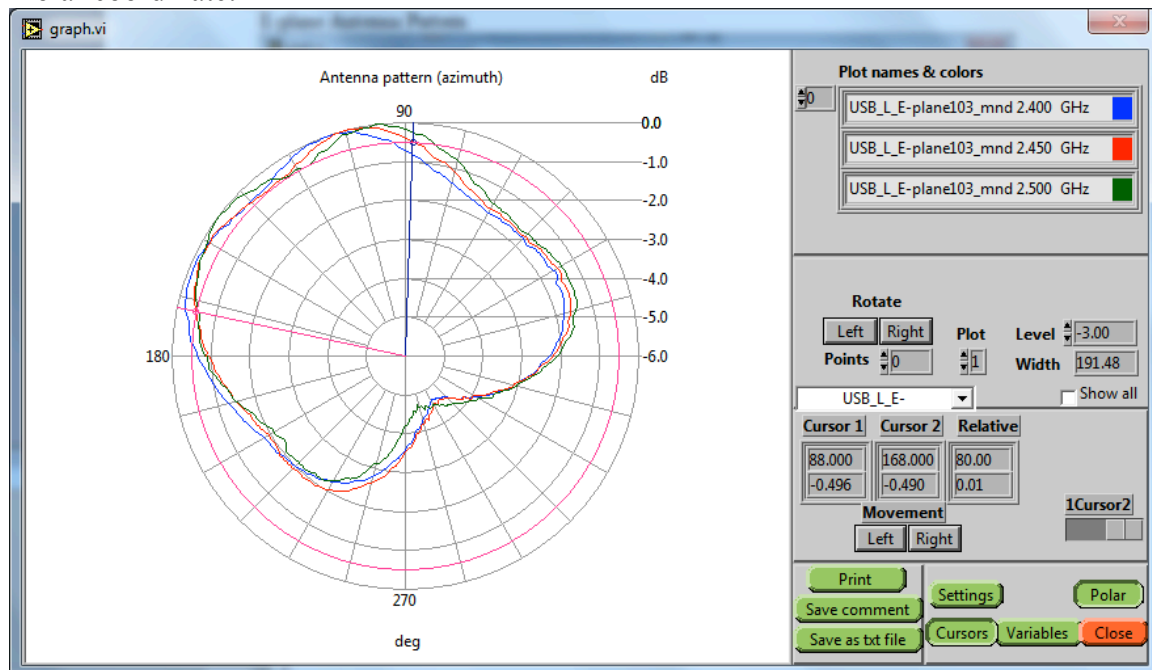
Freq, GHz	AP Max, deg
2.40	45
2.45	75
2.50	64

E-plane Antenna Pattern (ZX plane, Phi=90 deg):

Cartesian coordinate:



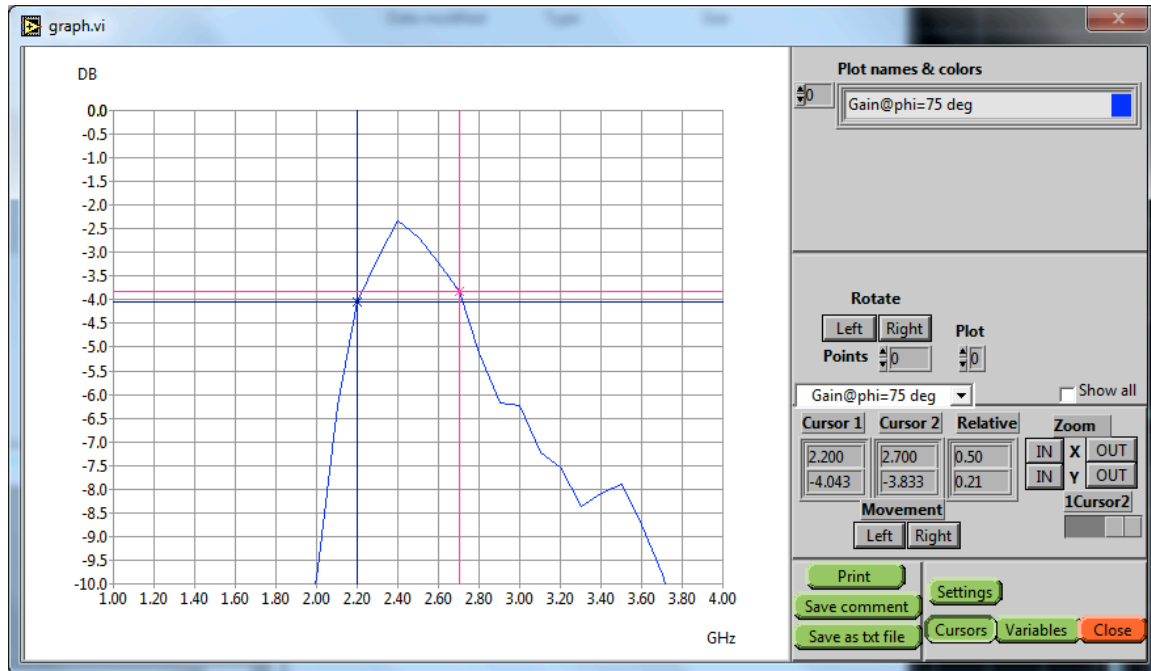
Polar coordinate:



Freq, GHz	AP Max, deg
2.40	108
2.45	104
2.50	97

Gain

at maximum of AP in H-plane (at $\Phi=75^\circ$, $\Theta=90^\circ$);



Gain Antenna Prototype #1(0309)

Max gain = -2.3 dBi @ $F=2.4$ GHz.

Frequency, GHz	Gain, dBi
2.2	-4.0
2.4	-2.3
2.6	-3.2
2.7	-3.8