

# FOXCONN NWInG

## Antenna Engineering Test Report

### Quanta DT3 WLAN Antenna

# Antenna Photo (1)



Initial screw post height



Cut down 1mm screw post height

## Antenna Photo (2)



Initial antenna assembly

Type 1 Cut down 1mm screw post

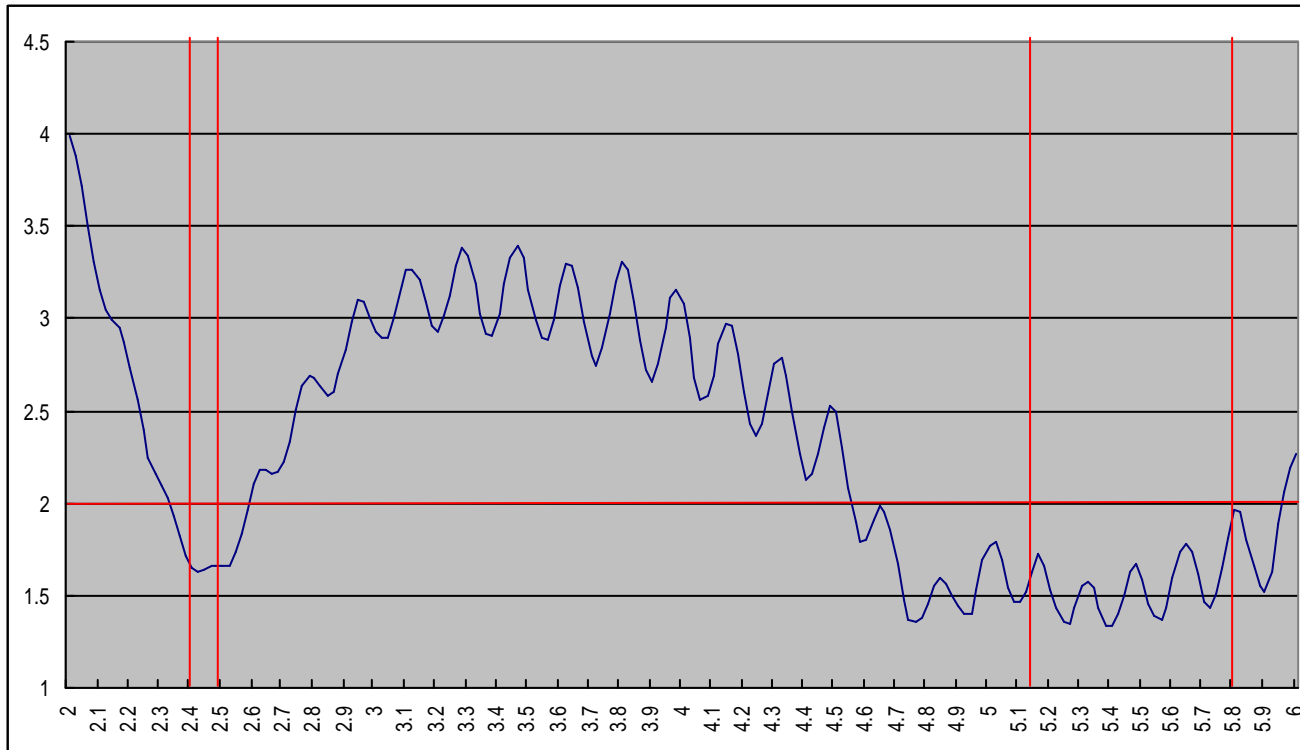


Cut down 1mm screw post antenna assembly

# Antenna Coordinate Axis



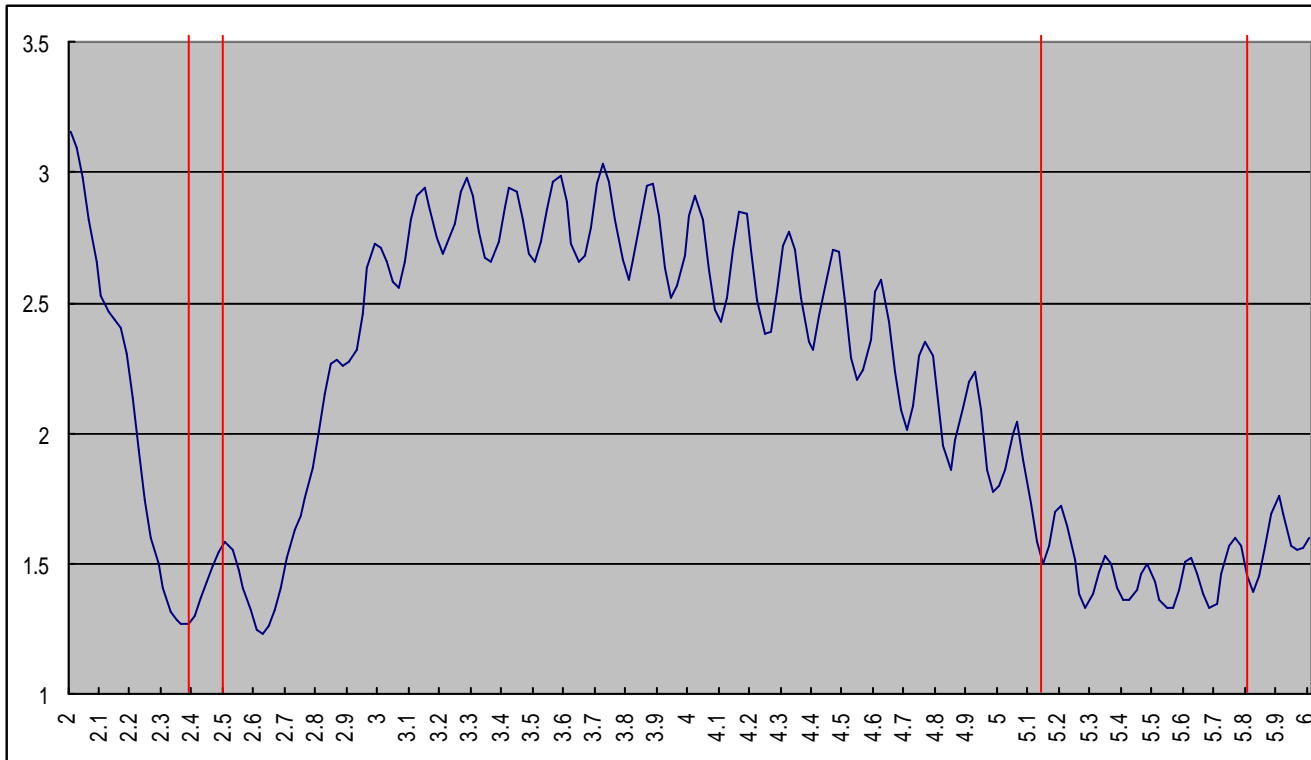
# VSWR of Type 1 Left Antenna



2.4GHz = 1.64  
2.5GHz = 1.65  
5.15GHz = 1.67  
5.35GHz = 1.46  
5.47GHz = 1.64  
5.8GHz = 1.95  
OD = 1.13mm  
32AWG Cable  
Length = 600mm

GHz

# VSWR of **Type 1 Right** Antenna

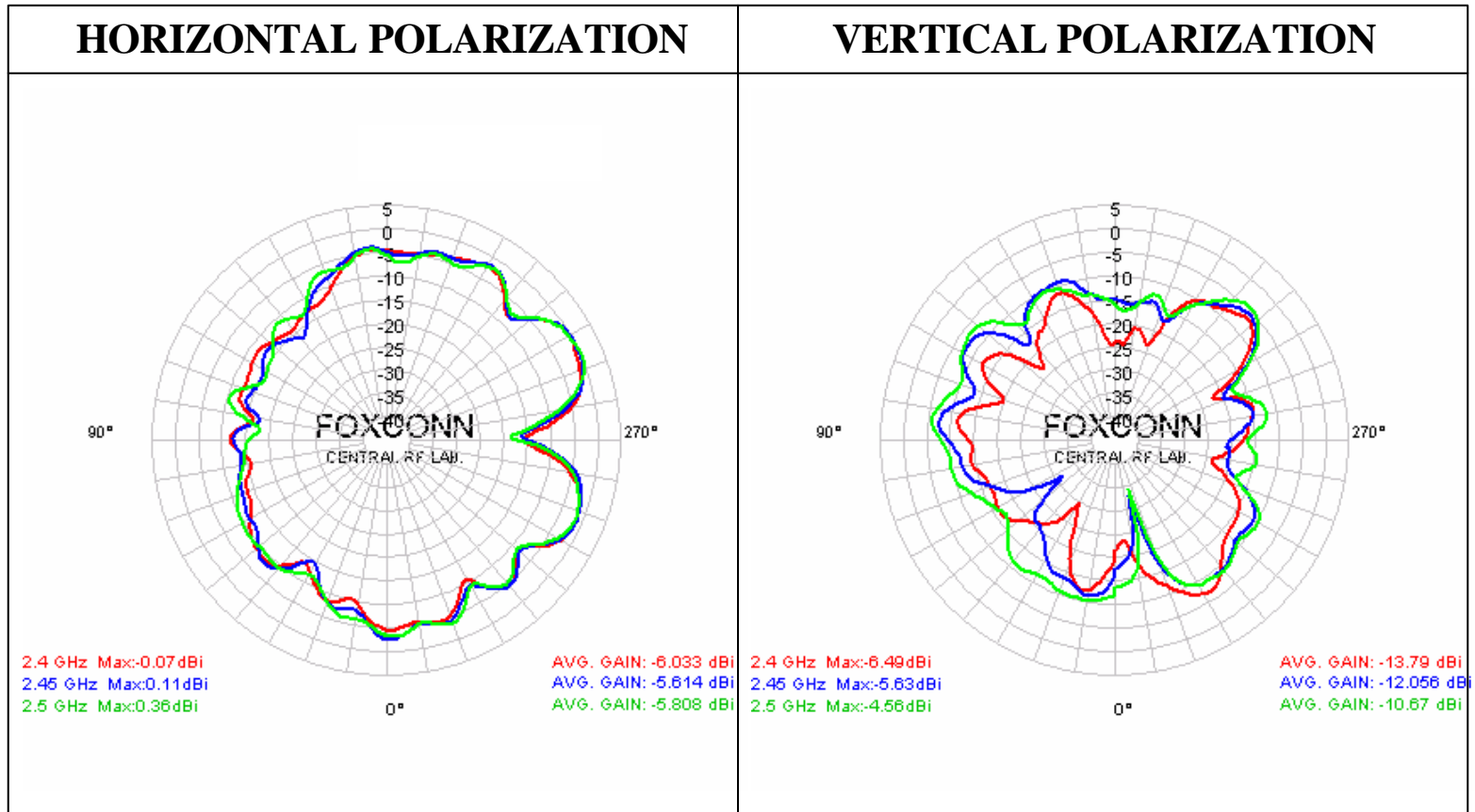


2.4GHz = 1.30  
2.5GHz = 1.58  
5.15GHz = 1.53  
5.35GHz = 1.52  
5.47GHz = 1.47  
5.8GHz = 1.45  
OD=1.13mm  
32AWG Cable  
Length=700mm

GHz

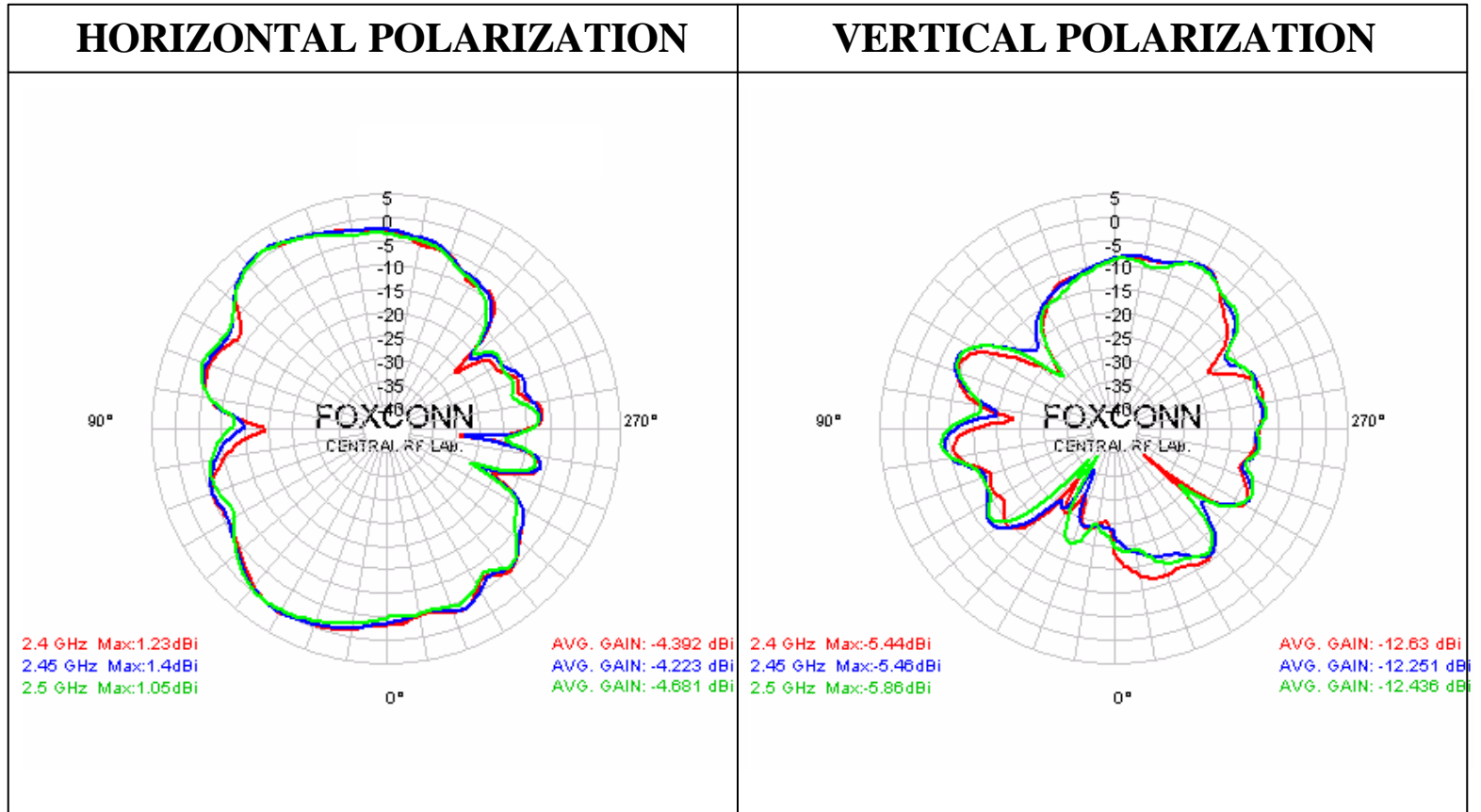
# X-Y Plane Radiation Pattern of **Type 1 Left** Antenna

## 2.4GHz ~ 2.5GHz



# X-Z Plane Radiation Pattern of **Type 1 Left** Antenna

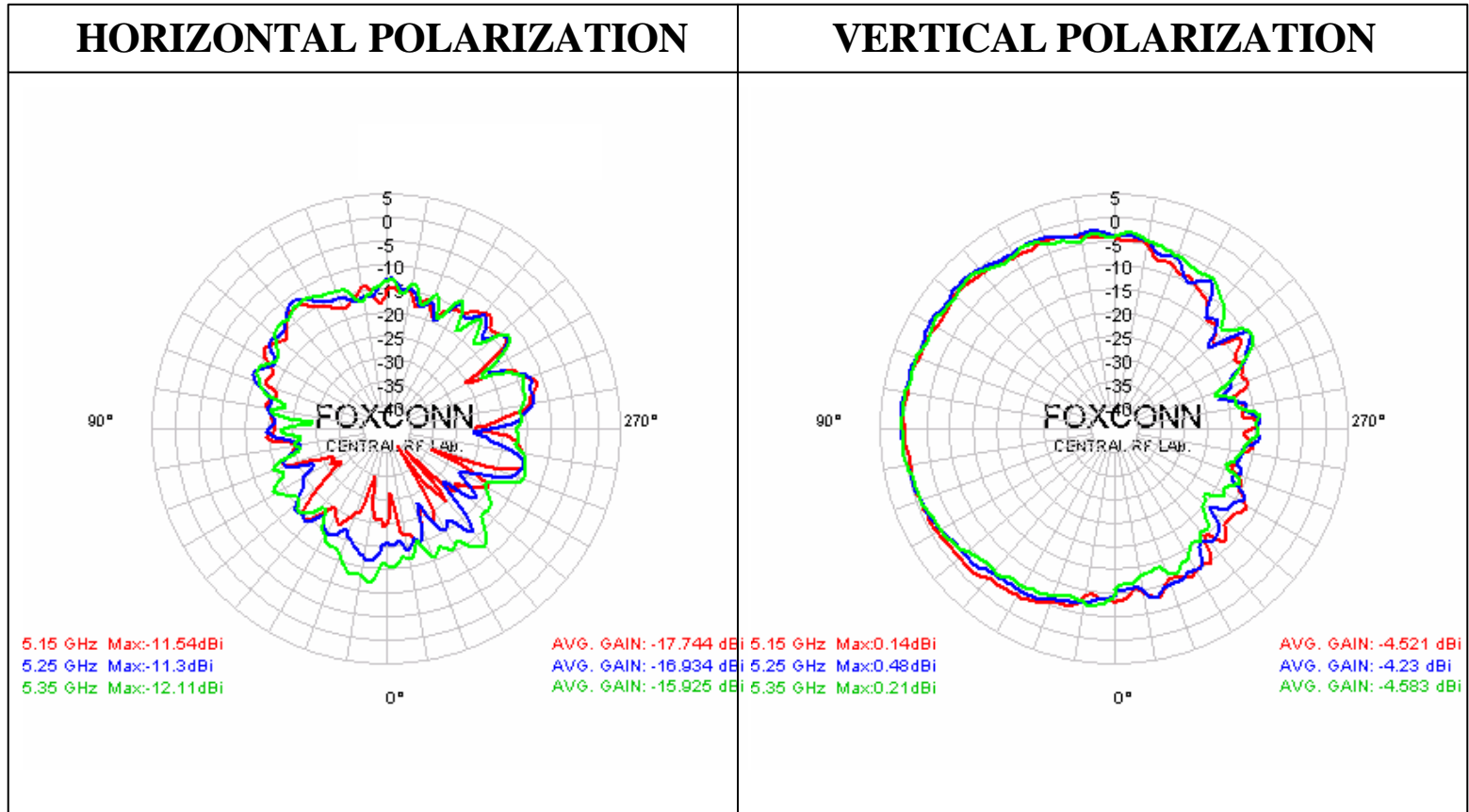
## 2.4GHz ~ 2.5GHz





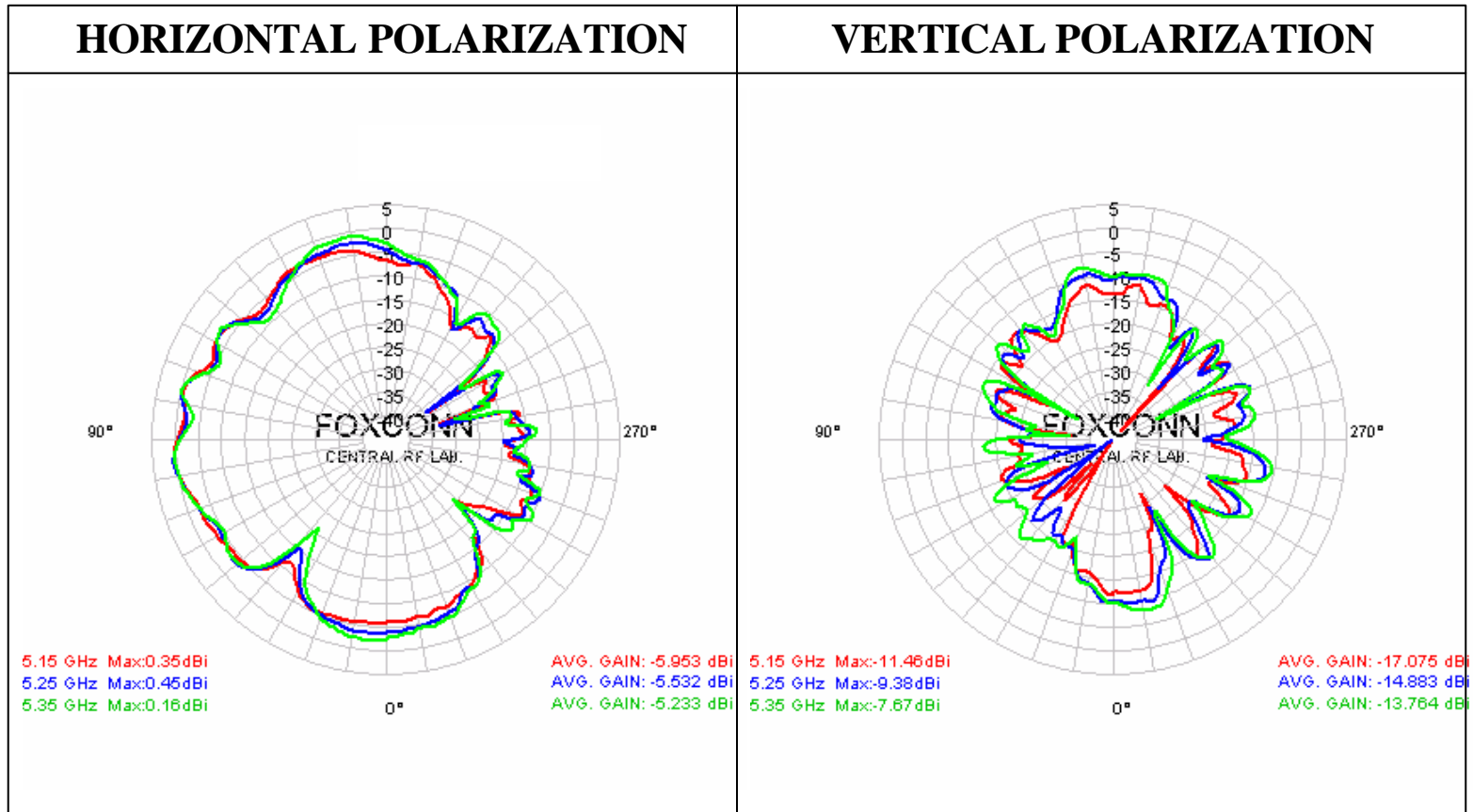
# X-Y Plane Radiation Pattern of **Type 1 Left** Antenna

## 5.15GHz ~ 5.35GHz



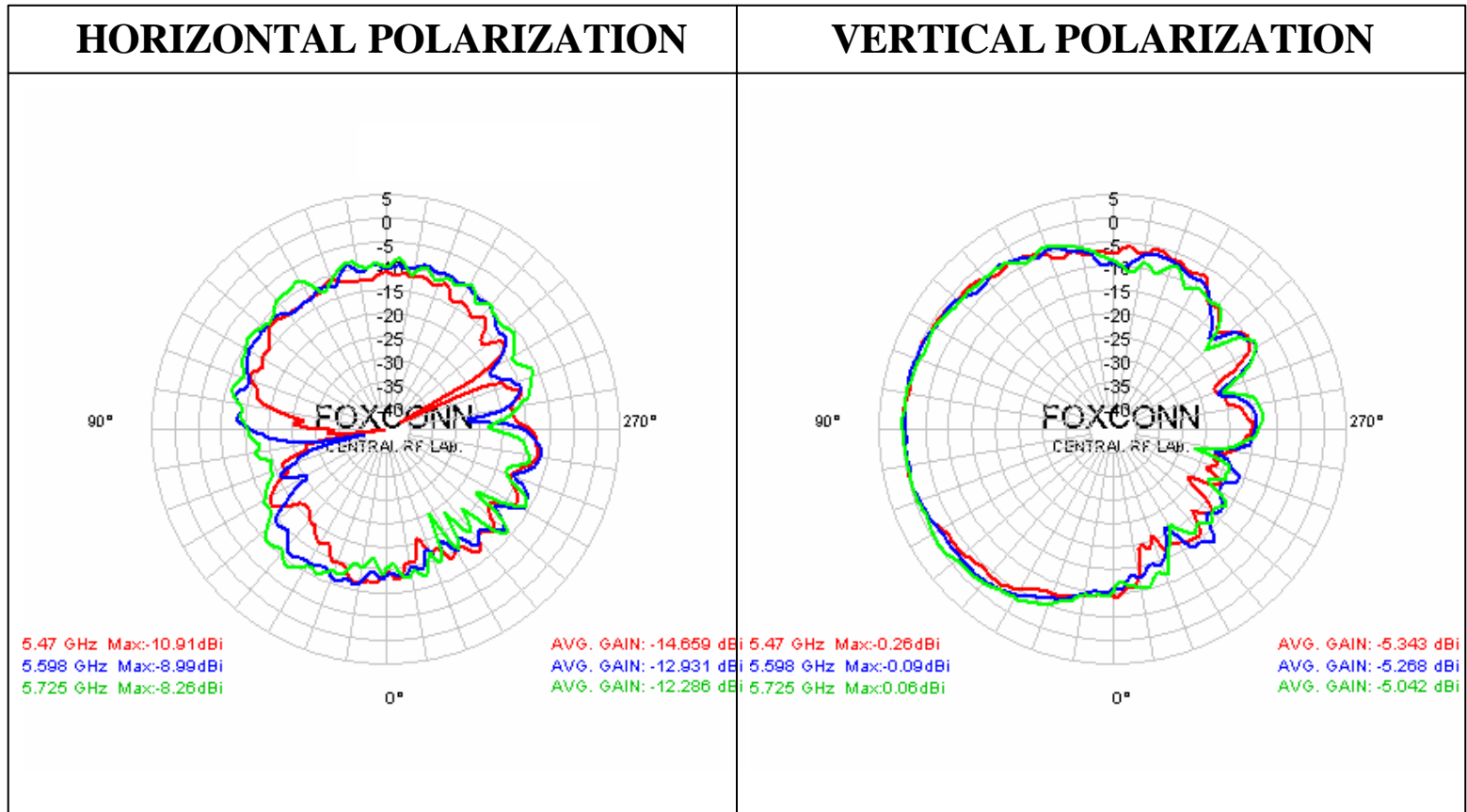
# X-Z Plane Radiation Pattern of **Type 1 Left** Antenna

## 5.15GHz ~ 5.35GHz



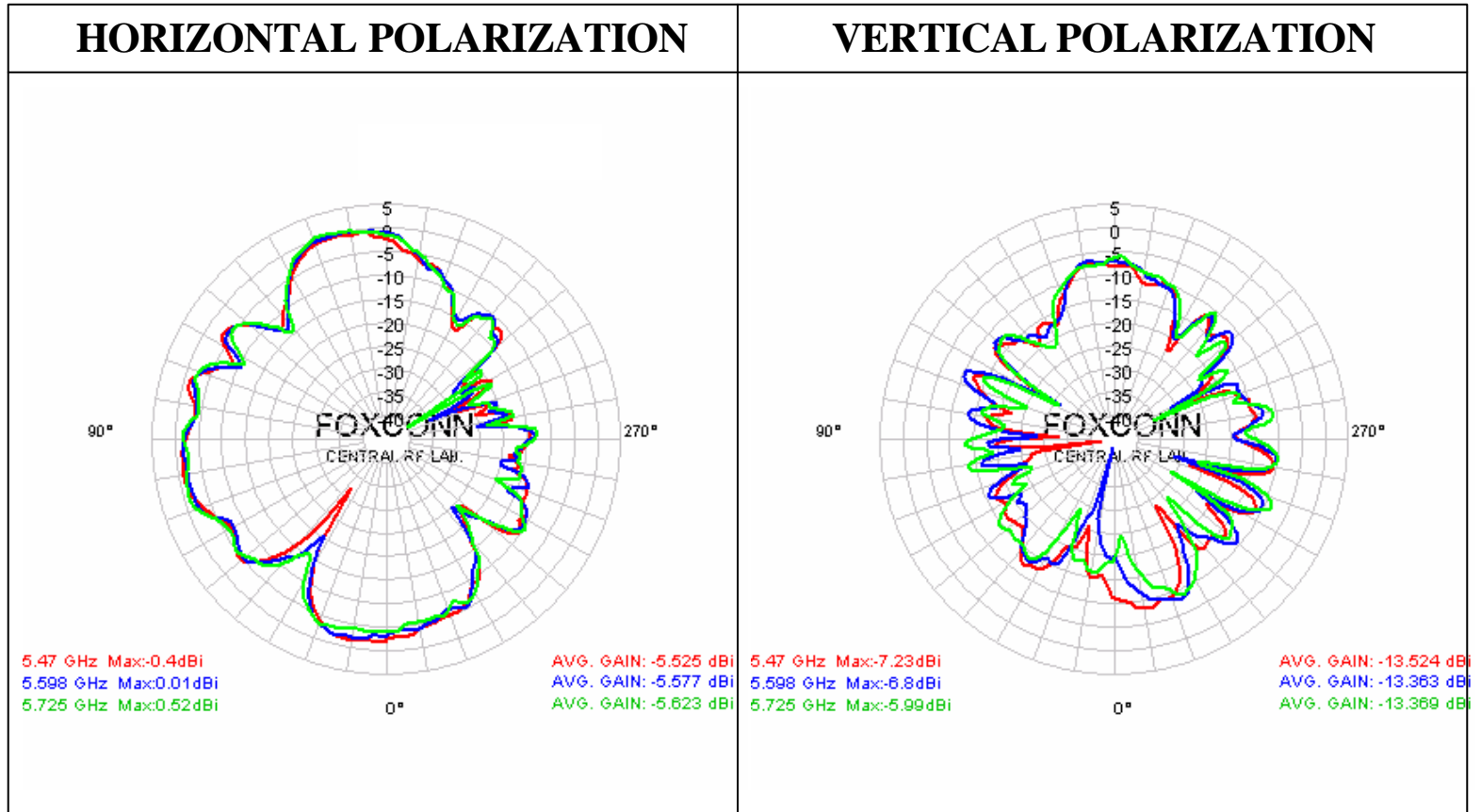
# X-Y Plane Radiation Pattern of **Type 1 Left** Antenna

## 5.47GHz ~ 5.725GHz



# X-Z Plane Radiation Pattern of **Type 1 Left** Antenna

## 5.47GHz ~ 5.725GHz



# Radiation Pattern of **Type 1 Left** Antenna

## Average Gain

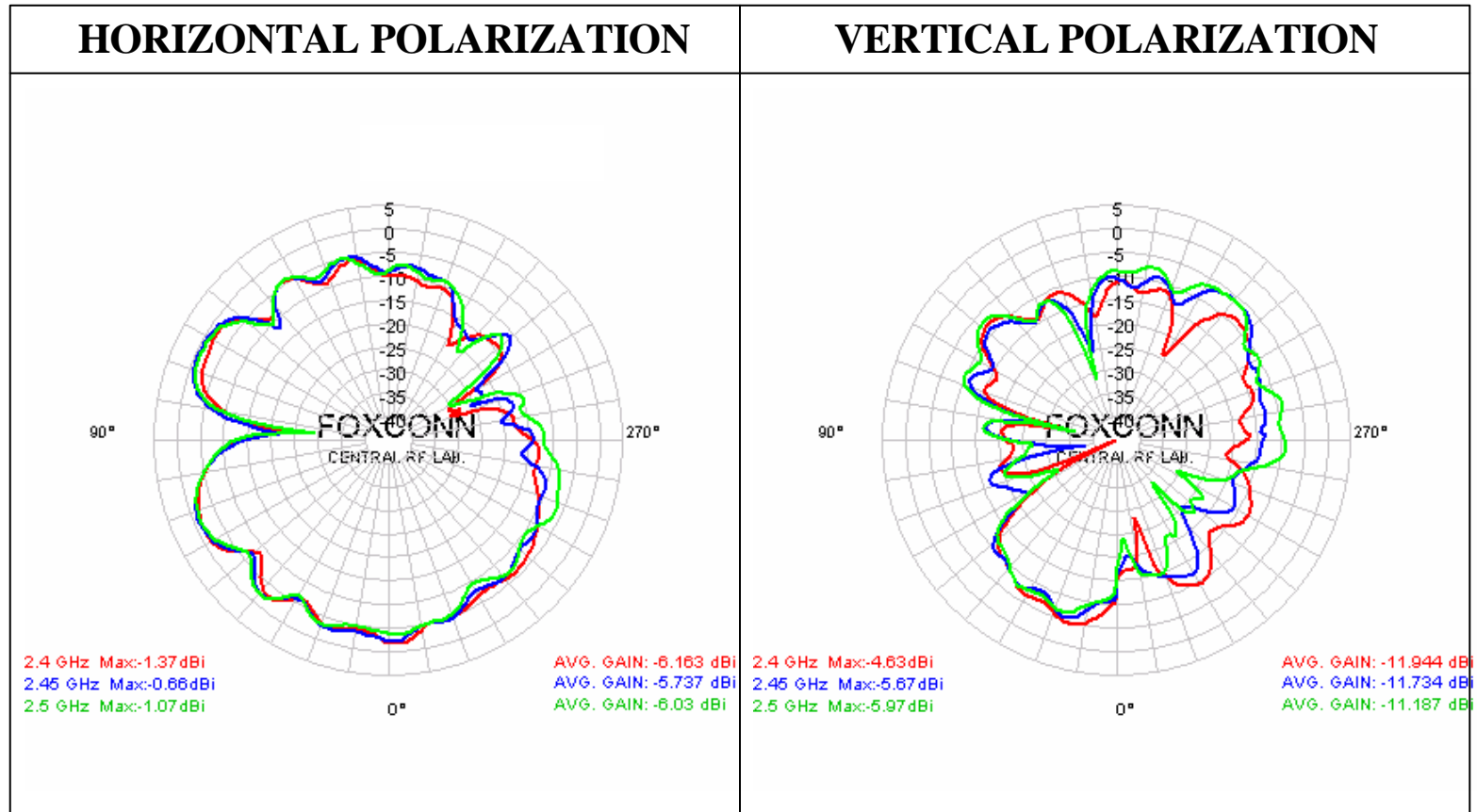
Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XY-H(dBi)	-6.03	-5.61	-5.80	-17.74	-16.93	-15.93	-14.66	-12.93	-12.29
XY-V(dBi)	-13.79	-12.05	-10.67	-4.52	-4.23	-4.58	-5.34	-5.27	-5.04
XY-Avg.-Gain	-5.36	-4.72	-4.58	-4.32	-4.00	-4.28	-4.86	-4.58	-4.29
Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XZ-H(dBi)	-4.39	-4.22	-4.68	-5.95	-5.53	-5.23	-5.52	-5.57	-5.62
XZ-V(dBi)	-12.63	-12.25	-12.44	-17.07	-14.88	-13.76	-13.52	-13.36	-13.36
XZ-Avg.-Gain	-3.78	-3.59	-4.01	-5.63	-5.05	-4.66	-4.88	-4.90	-4.94

## Peak Gain

Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XY-H(dBi)	-0.07	0.11	0.36	-11.54	-11.30	-12.11	-10.91	-8.99	-8.26
XY-V(dBi)	-6.49	-5.63	-4.56	0.14	0.48	0.21	-0.26	-0.09	0.06
Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XZ-H(dBi)	1.23	1.40	1.05	0.35	0.45	0.16	-0.40	0.01	0.52
XZ-V(dBi)	-5.44	-5.46	-5.86	-11.46	-9.38	-7.67	-7.23	-6.80	-5.99

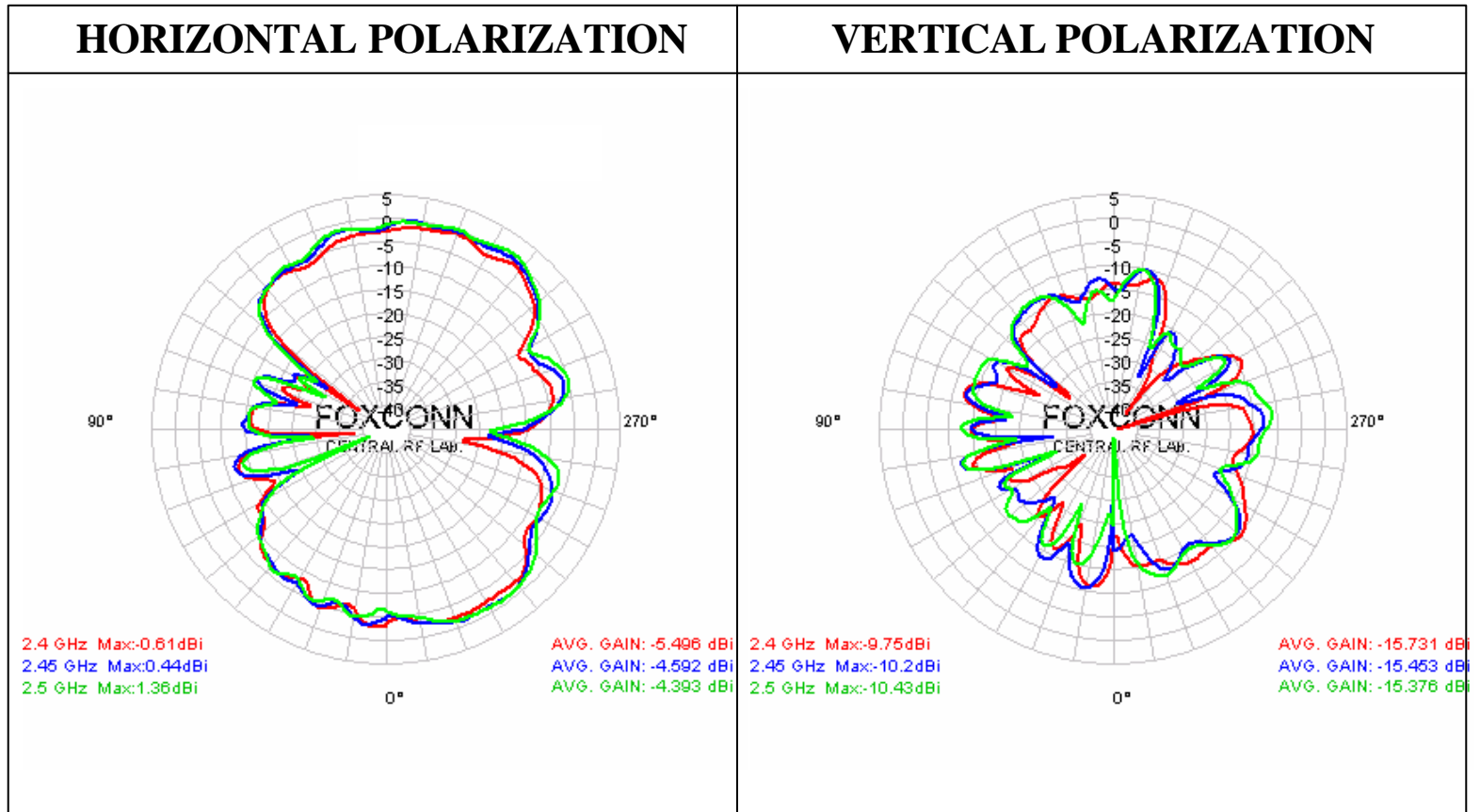
# X-Y Plane Radiation Pattern of **Type 1 Right** Antenna

## 2.4GHz ~ 2.5GHz



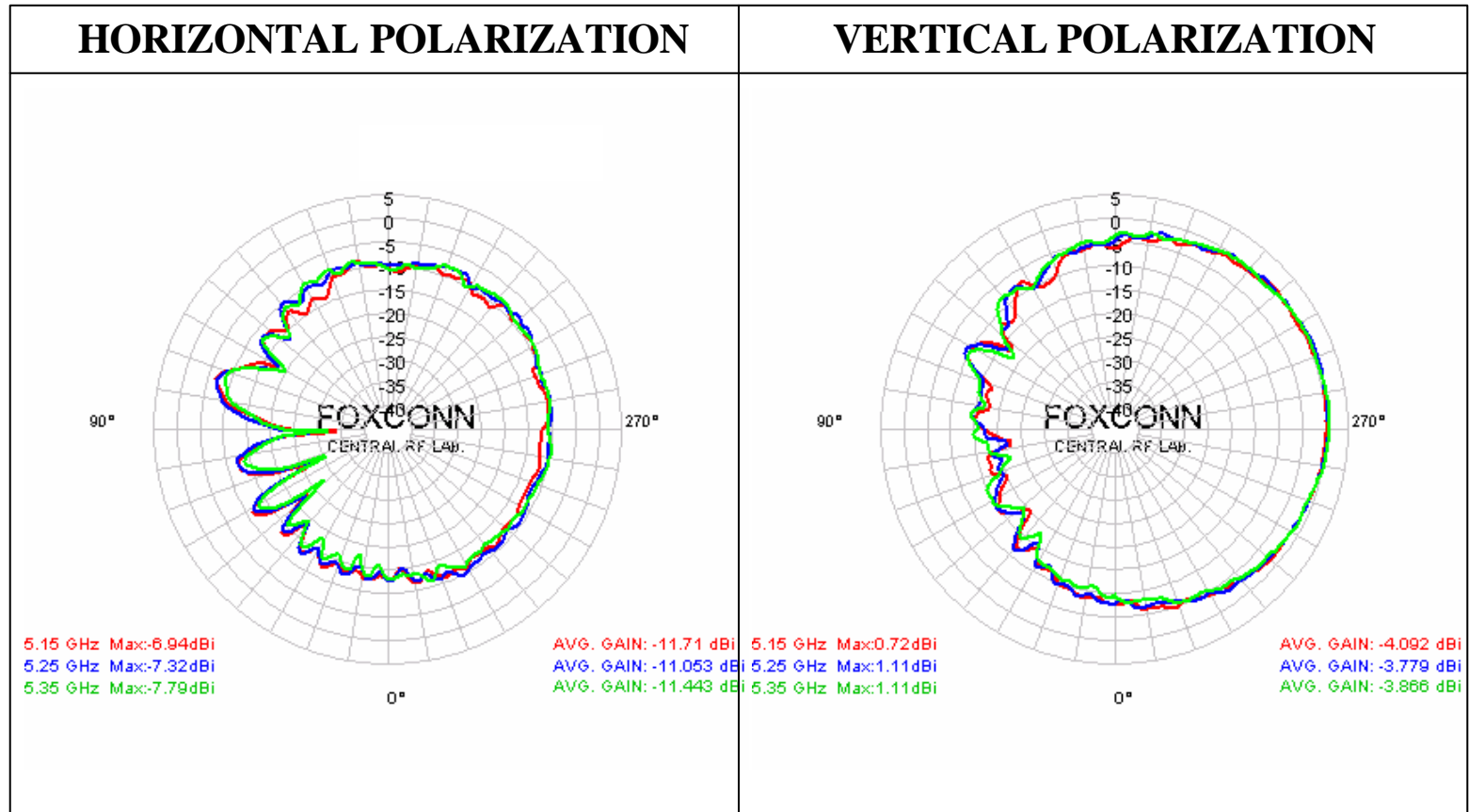
# X-Z Plane Radiation Pattern of **Type 1 Right** Antenna

## 2.4GHz ~ 2.5GHz



# X-Y Plane Radiation Pattern of **Type 1 Right** Antenna

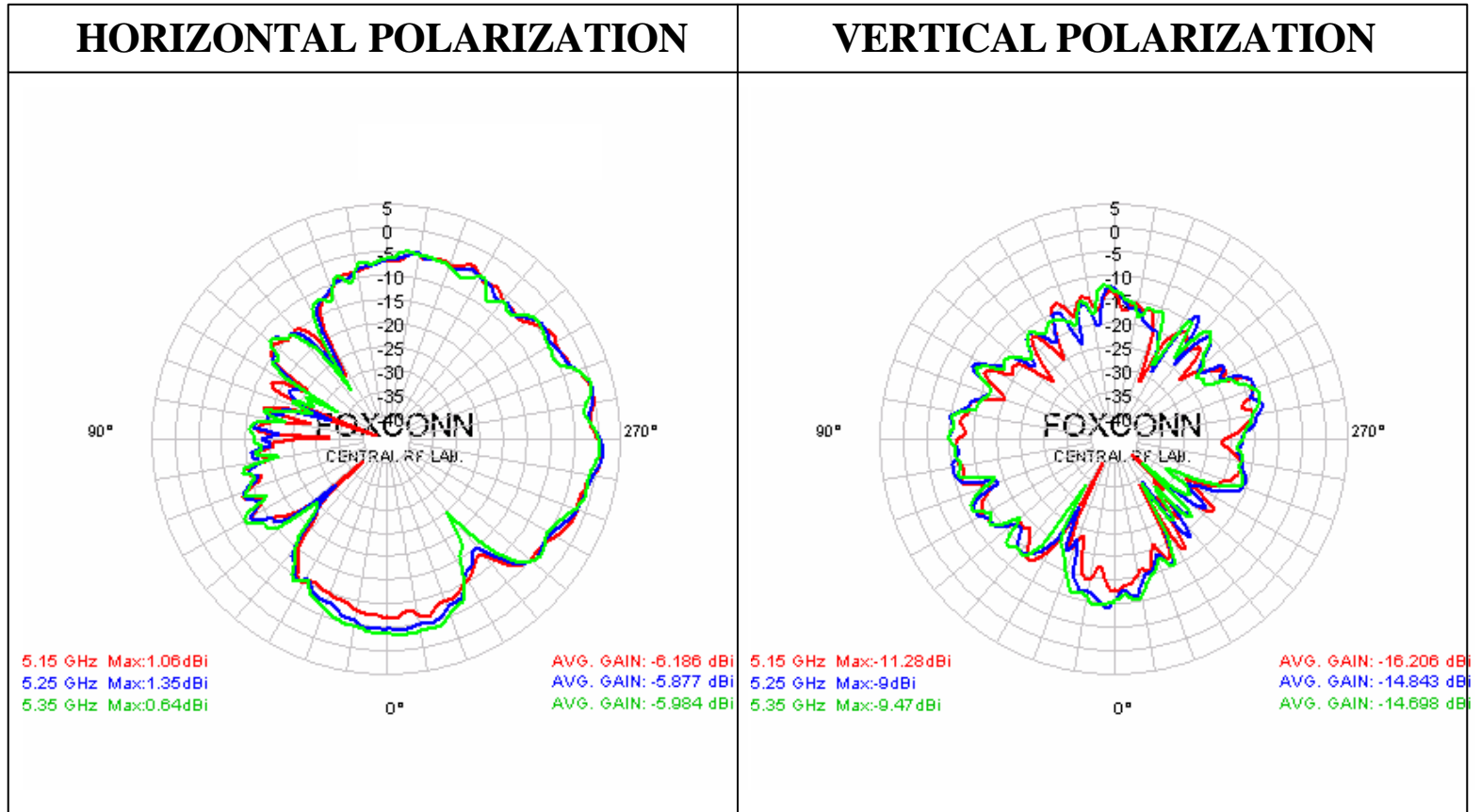
## 5.15GHz ~ 5.35GHz





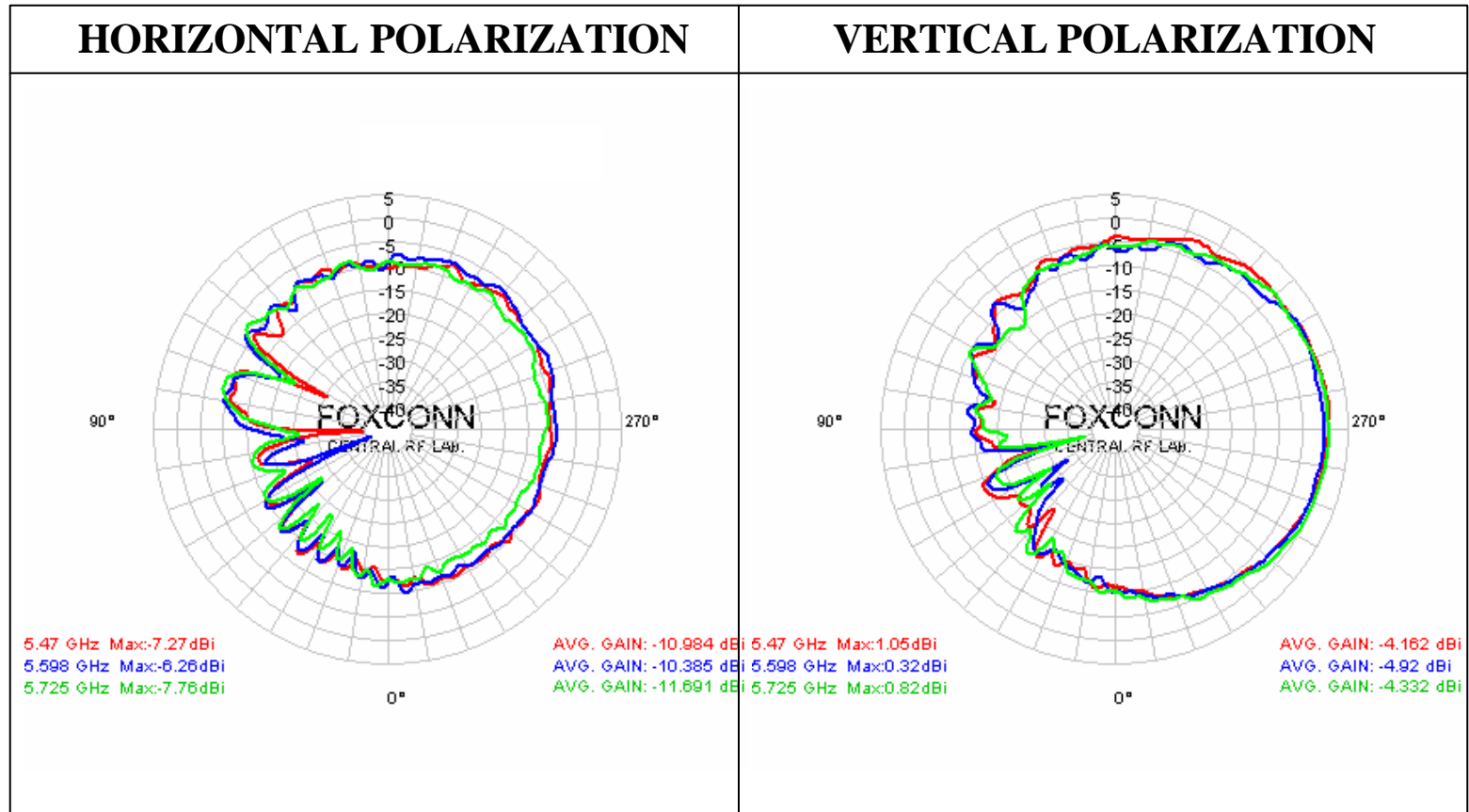
# X-Z Plane Radiation Pattern of **Type 1 Right** Antenna

## 5.15GHz ~ 5.35GHz



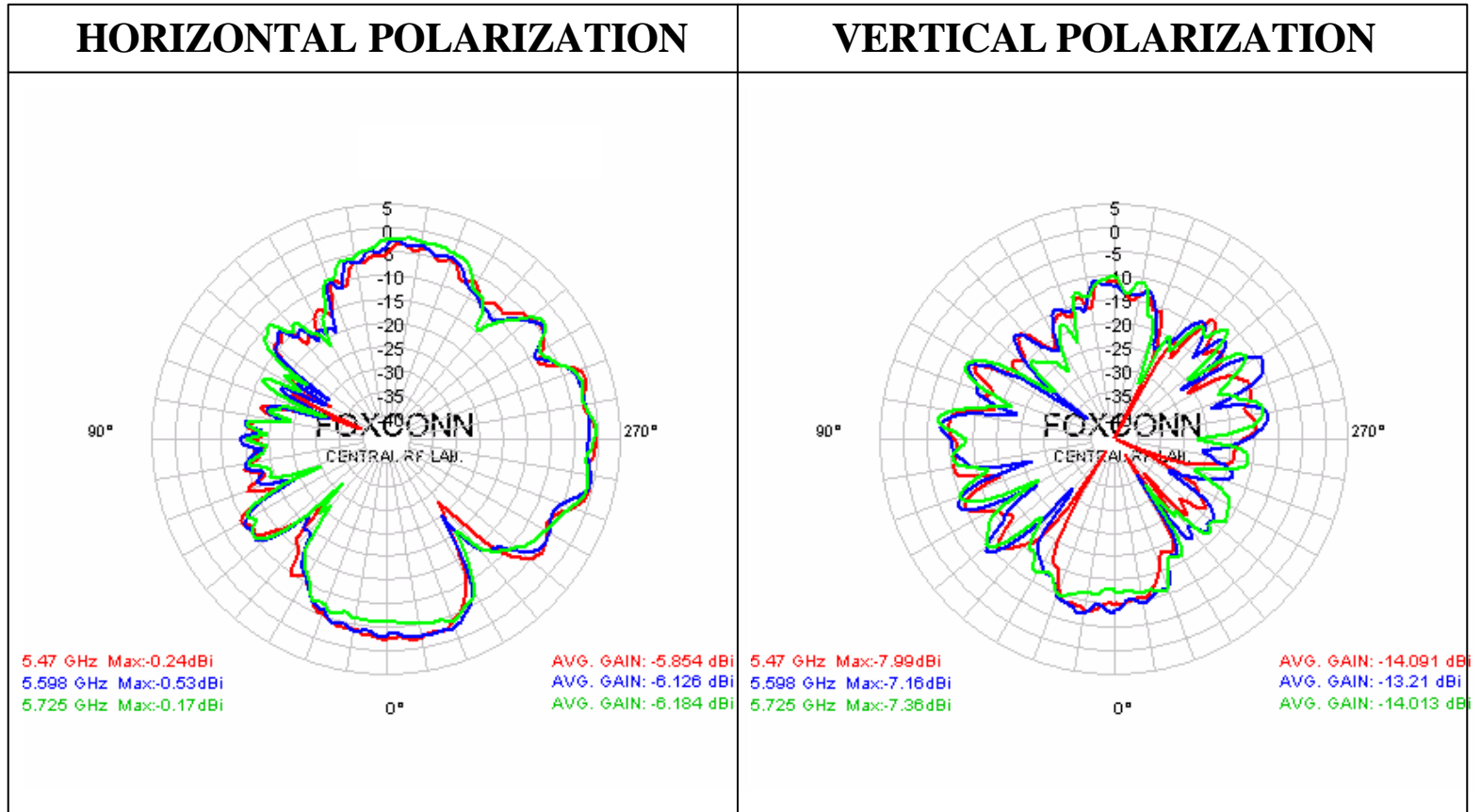
# X-Y Plane Radiation Pattern of **Type 1 Right** Antenna

## 5.47GHz ~ 5725GHz



# X-Z Plane Radiation Pattern of **Type 1 Right** Antenna

## 5.47GHz ~ 5725GHz



# Radiation Pattern of **Type 1 Right** Antenna

## Average Gain

Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XY-H(dBi)	-6.16	-5.73	-6.03	-11.71	-11.05	-11.44	-10.98	-10.39	-11.69
XY-V(dBi)	-11.94	-11.73	-11.18	-4.09	-3.78	-3.87	-4.16	-4.92	-4.33
XY-Avg.-Gain	-5.14	-4.76	-4.87	-3.40	-3.03	-3.17	-3.34	-3.83	-3.60
Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	-5.598	5.725
XZ-H(dBi)	-5.50	-4.59	-4.39	-6.18	-5.87	-5.98	-5.85	-6.12	-6.18
XZ-V(dBi)	-15.73	-15.45	-15.38	-16.20	-14.84	-14.69	-14.09	-13.21	-14.01
XZ-Avg.-Gain	-5.10	-4.25	-4.06	-5.77	-5.35	-5.43	-5.24	-5.34	-5.52

## Peak Gain

Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	5.8	5.725
XY-H(dBi)	-0.07	-0.66	-2.37	-6.94	-7.32	-7.79	-7.27	-6.29	-7.76
XY-V(dBi)	-4.63	-5.67	-5.97	0.72	1.11	1.11	1.05	0.32	0.82
Freq.(GHz)	2.4	2.45.	2.5	5.15	5.25	5.35	5.47	5.8	5.725
XZ-H(dBi)	-0.61	0.44	1.36	1.06	1.35	0.64	-0.24	-0.53	-0.17
XZ-V(dBi)	-9.75	-10.20	-10.43	-11.28	-9.00	-9.47	-7.99	-7.16	-7.36