

Regulatory Antenna Information

Antenna Information

I. Antenna Assembly Specifications

Antenna assembly overview: Peak Gain including cable loss.

Designator	Manufacture	Antenna type	Cable Assembly Info.	Peak Gain W/ Cable loss, dBi
Main antenna (P/N: WDAN-Q1CT1001)	FOXCONN	PIFA	50 ohm Coaxial with 1.13 mm OD Length: 550 mm Connector: SGX	2400-2500MHz 2.510
				5150-5350MHz -1.050
				5470-5725MHz -1.090
				5725-5850MHz
Auxiliary antenna (P/N: WDAN-Q1CT1001)	FOXCONN	PIFA	50 ohm Coaxial with 1.13 mm OD Length: 695 mm Connector: SGX	2400-2500MHz 2.110
				5150-5350MHz -2.940
				5470-5725MHz -1.840
				5725-5850MHz

Antenna overview: Peak Gain not including cable loss.

Antenna Designator	Manufacture	Antenna type	Peak Gain w/o Cable Loss, dBi
Main antenna (P/N: WDAN-Q1CT1001)	FOXCONN	PIFA with sheet metal material	2400-2500MHz 4.003
			5150-5350MHz 1.200
			5470-5725MHz 1.237
			5725-5850MHz
Auxiliary antenna (P/N: WDAN-Q1CT1001)	FOXCONN	PIFA with sheet metal material	2400-2500MHz 3.997
			5150-5350MHz -0.056
			5470-5725MHz 1.101
			5725-5850MHz

Cable assembly overview: Cable loss (including connector).

Designator	Manufacture	Cable type and Length	VSWR, max	Cable Loss, dBi (peak)
Main antenna (P/N: WDAN-Q1CT1001)	FOXCONN	(p/n: 703-3200-211) 50 ohm Coaxial 550 mm Length	2400-2500MHz 1.556	2400-2500MHz -1.493
			5150-5350MHz 1.564	5150-5350MHz -2.250
			5470-5725MHz 1.552	5470-5725MHz -2.327
			5725-5850MHz	5725-5850MHz
Auxiliary antenna (P/N: WDAN-Q1CT1001)	FOXCONN	(p/n: 703-3208-211) 50 ohm Coaxial 695 mm Length	2400-2500MHz 1.324	2400-2500MHz -1.887
			5150-5350MHz 1.483	5150-5350MHz -2.844
			5470-5725MHz 1.536	5470-5725MHz -2.941
			5725-5850MHz	5725-5850MHz

Main & Aux Antenna Assembly

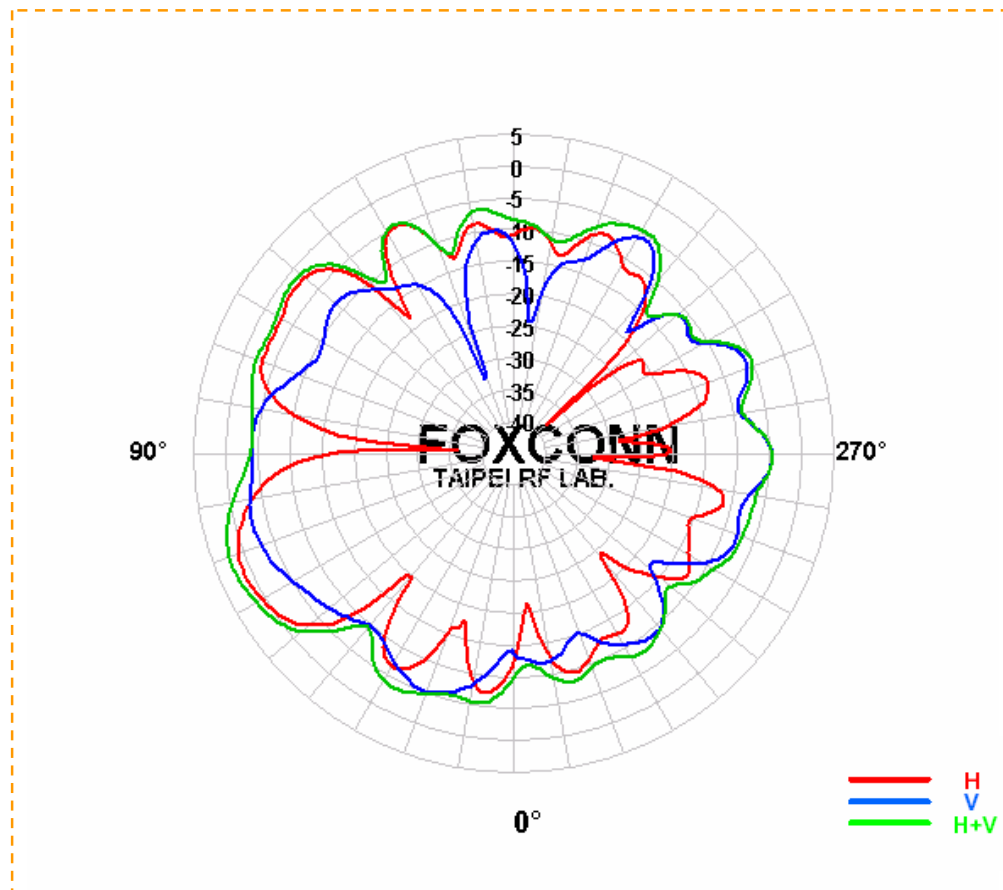


Radiation characteristic of antennae {Free Space / Loaded }

Total Gain, dBi = $10 \cdot \log(10^{\text{Horizontal Partial Gain, dBi}/10} + 10^{\text{Vertical Polarization Partial Gain, dBi}/10})$
* Horiz+Vert (dBi) peak = $10 \cdot \log(10^{\text{Horizontal (dBi) peak}/10} + 10^{\text{Vertical (dBi) peak}/10})$

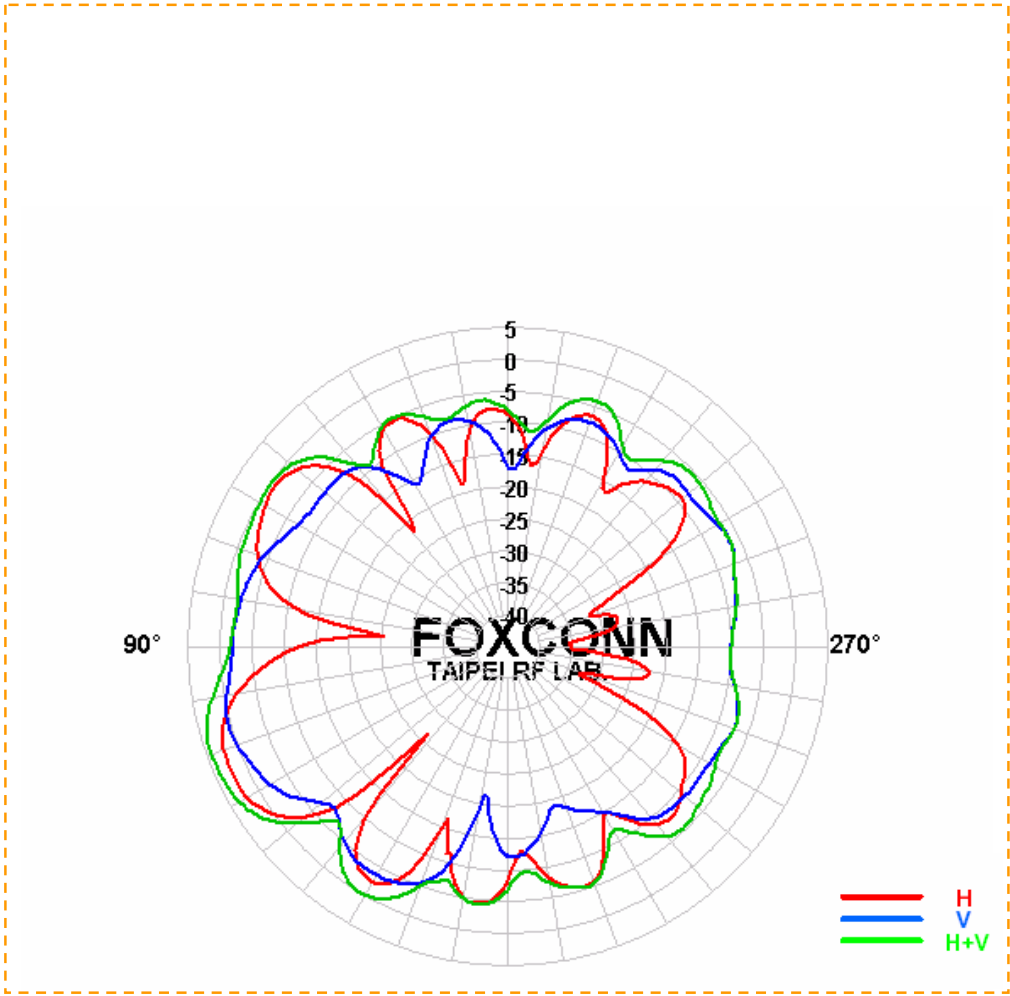
2400-2500MHz radiation characteristic

Main antenna: 2400 MHz



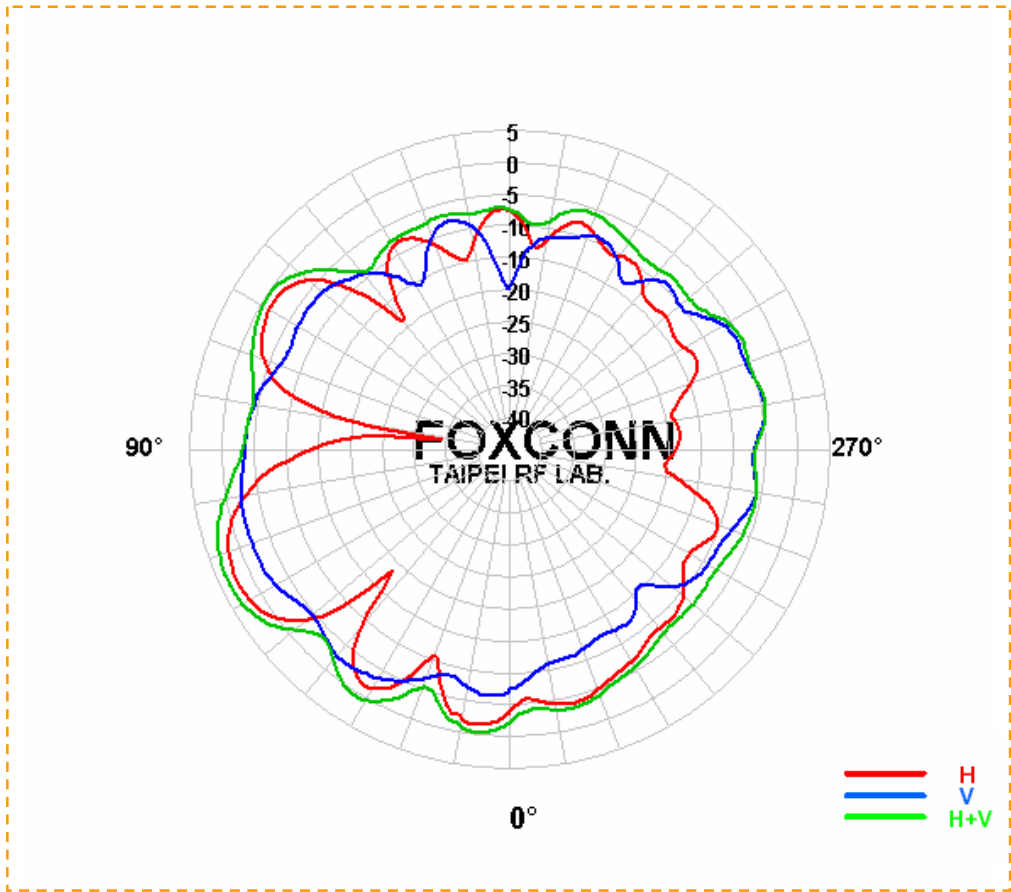
Center Frequency	2400 MHz
Horizontal (dBi) peak	1.16
Vertical (dBi) peak	-2.70
Horz+Vert (dBi) peak	2.45

Main antenna: 2450 MHz



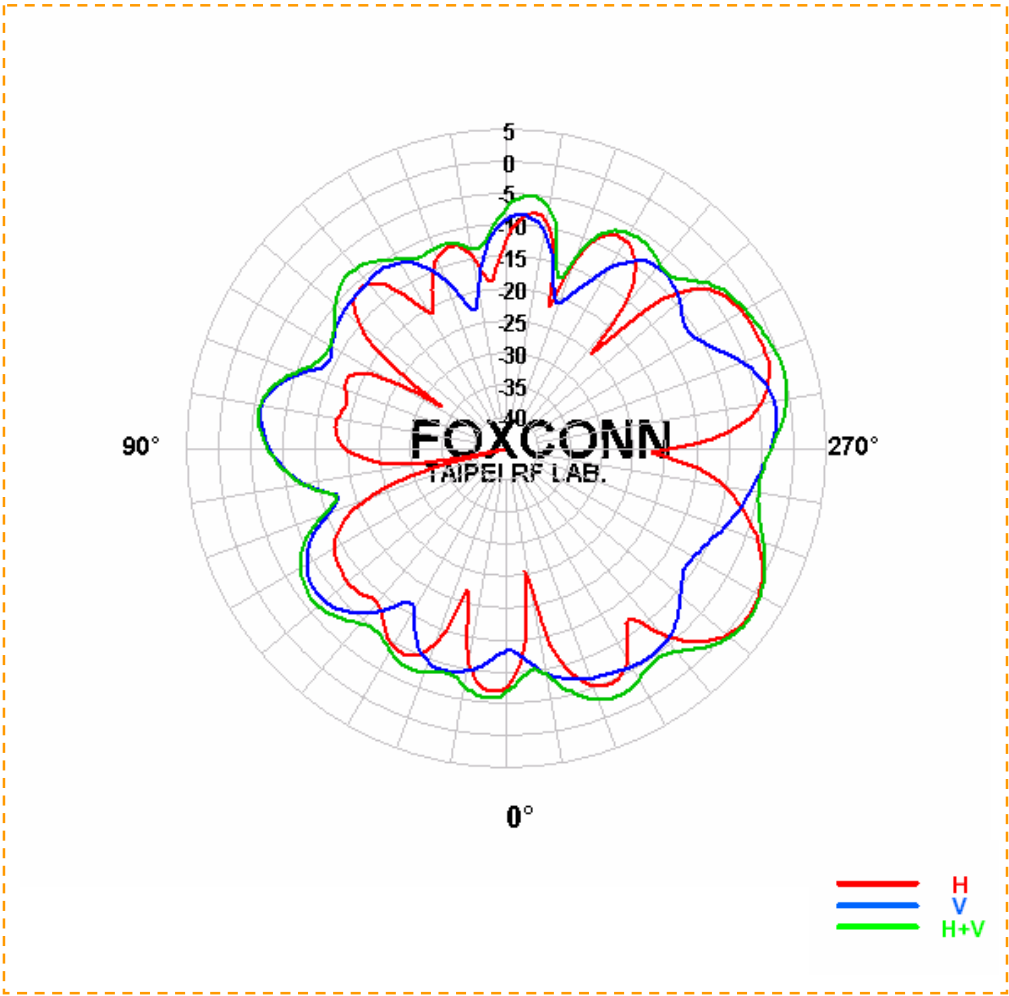
Center Frequency	2450 MHz
Horizontal (dBi) peak	2.51
Vertical (dBi) peak	0.41
Horz+Vert (dBi) peak	4.31

Main antenna: 2500 MHz



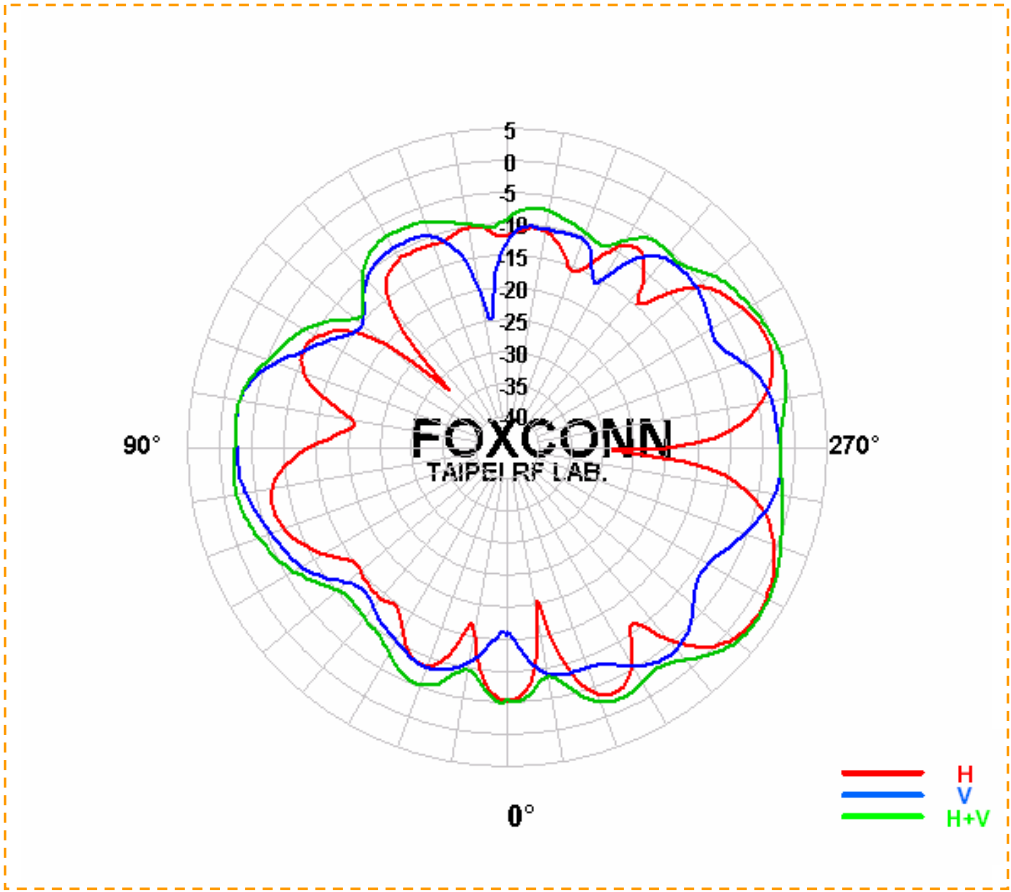
Center Frequency	2500 MHz
Horizontal (dBi) peak	2.34
Vertical (dBi) peak	-2.08
Horz+Vert (dBi) peak	3.63

Auxiliary antenna: 2400 MHz



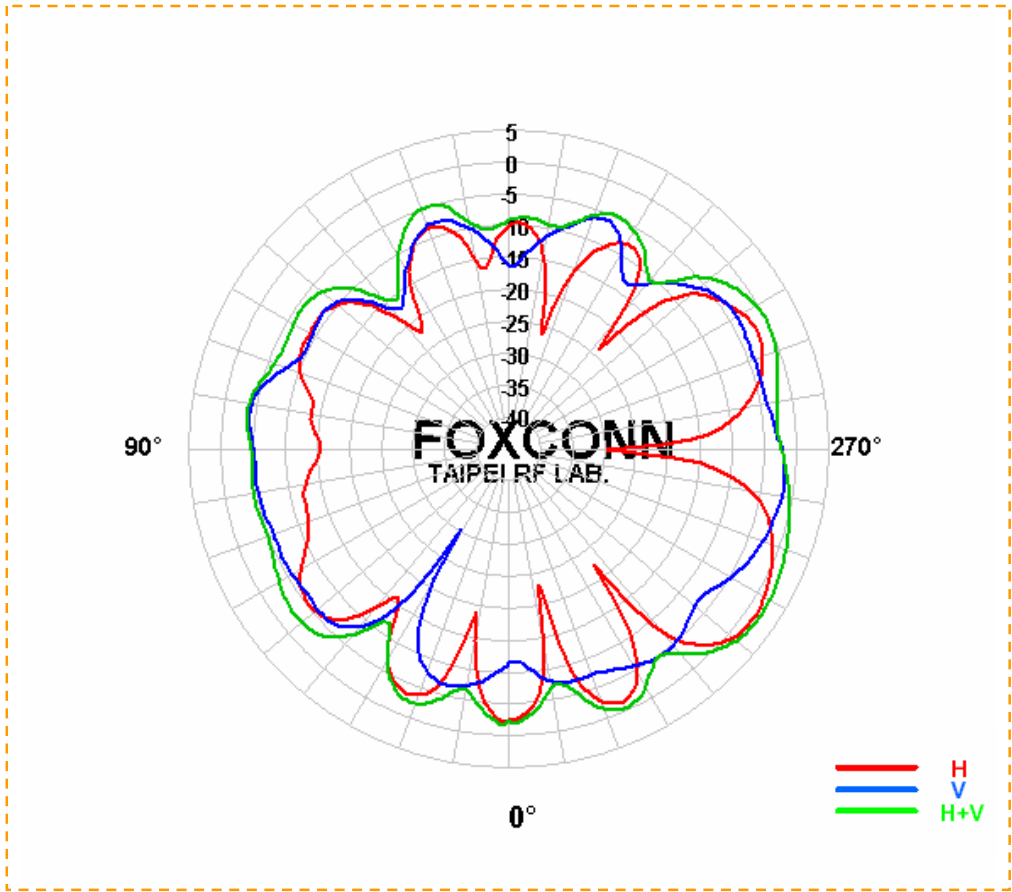
Center Frequency	2400 MHz
Horizontal (dBi) peak	1.22
Vertical (dBi) peak	-2.31
Horz+Vert (dBi) peak	1.46

Auxiliary antenna: 2450 MHz



Center Frequency	2450 MHz
Horizontal (dBi) peak	2.21
Vertical (dBi) peak	-1.97
Horz+Vert (dBi) peak	2.54

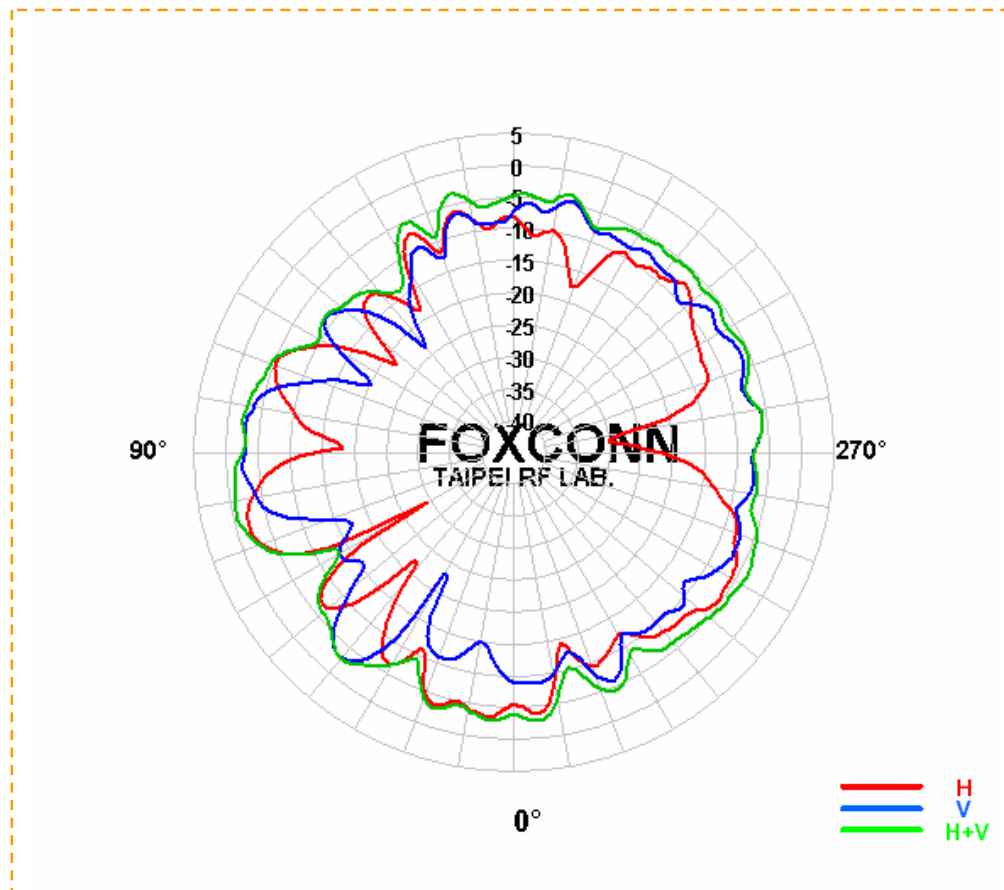
Auxiliary antenna: 2500 MHz



Center Frequency	2500 MHz
Horizontal (dBi) peak	1.65
Vertical (dBi) peak	-1.44
Horz+Vert (dBi) peak	2.35

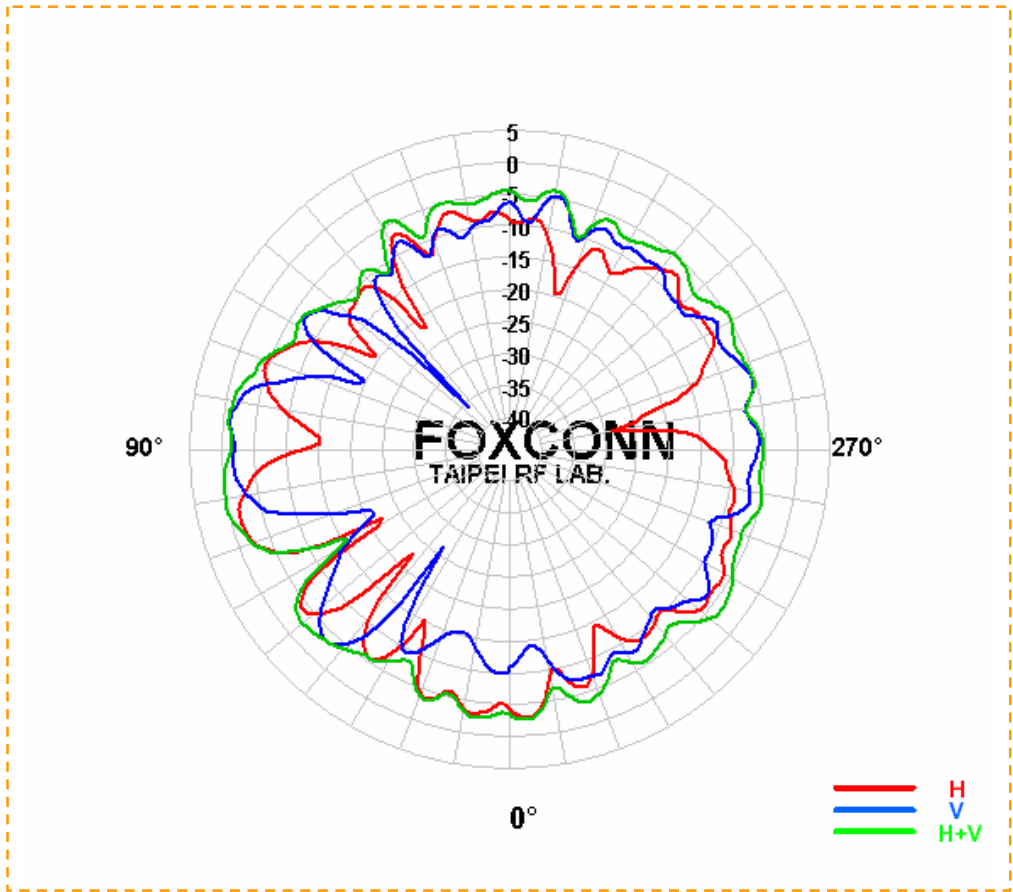
5150-5135 MHz radiation characteristic

Main antenna: 5150 MHz



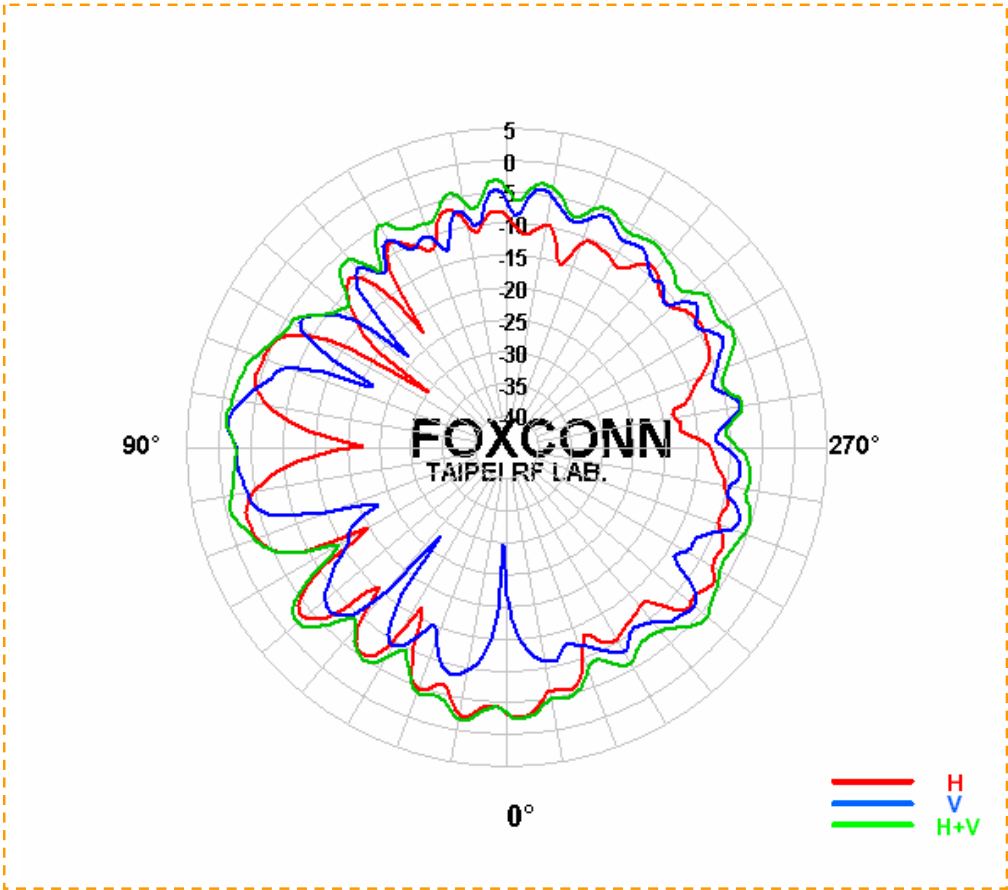
Center Frequency	5150 MHz
Horizontal (dBi) peak	-2.05
Vertical (dBi) peak	-2.55
Horz+Vert (dBi) peak	-0.53

Main antenna: 5250 MHz



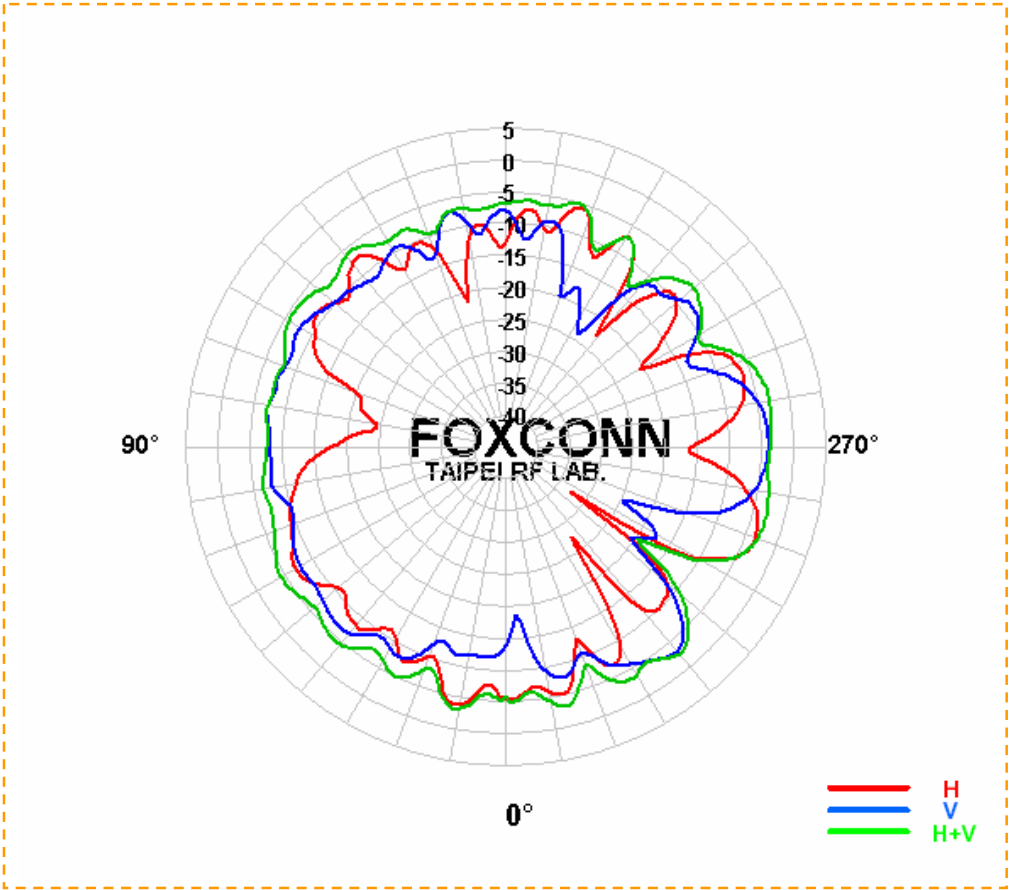
Center Frequency	5250 MHz
Horizontal (dBi) peak	-1.45
Vertical (dBi) peak	-1.05
Horz+Vert (dBi) peak	0.13

Main antenna: 5350 MHz



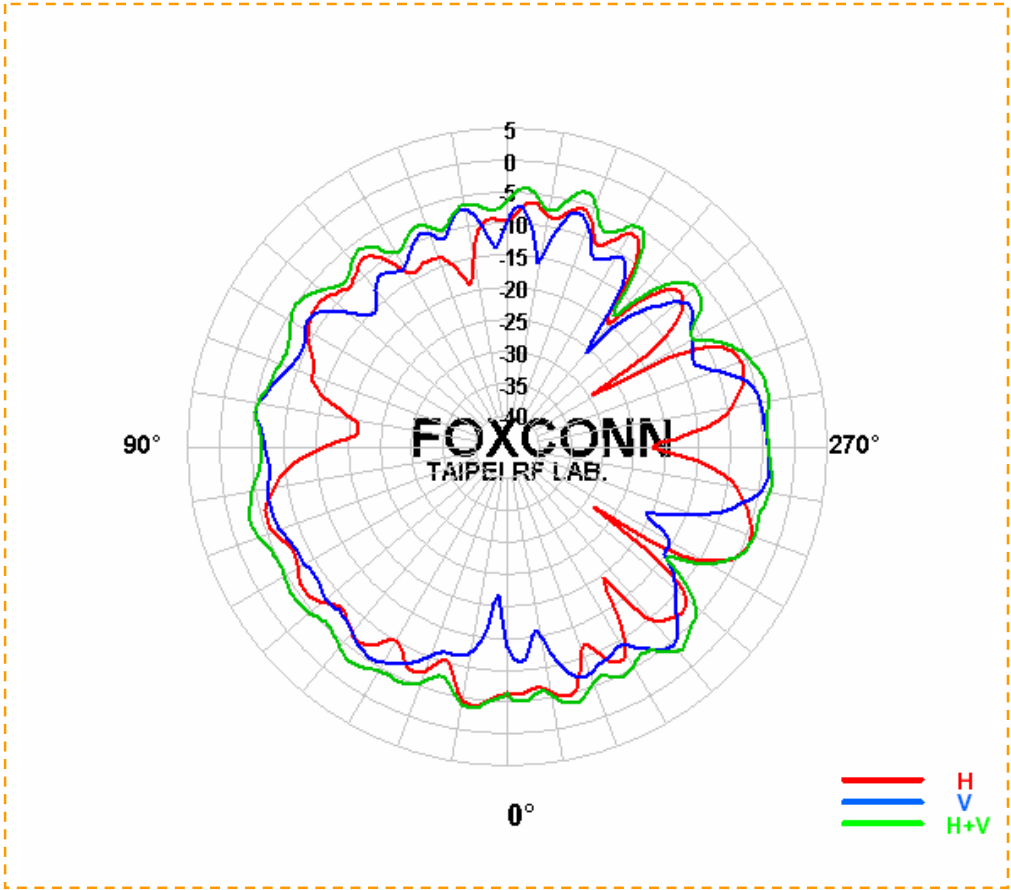
Center Frequency	5350 MHz
Horizontal (dBi) peak	-2.33
Vertical (dBi) peak	-1.26
Horz+Vert (dBi) peak	-0.79

Auxiliary antenna: 5150 MHz



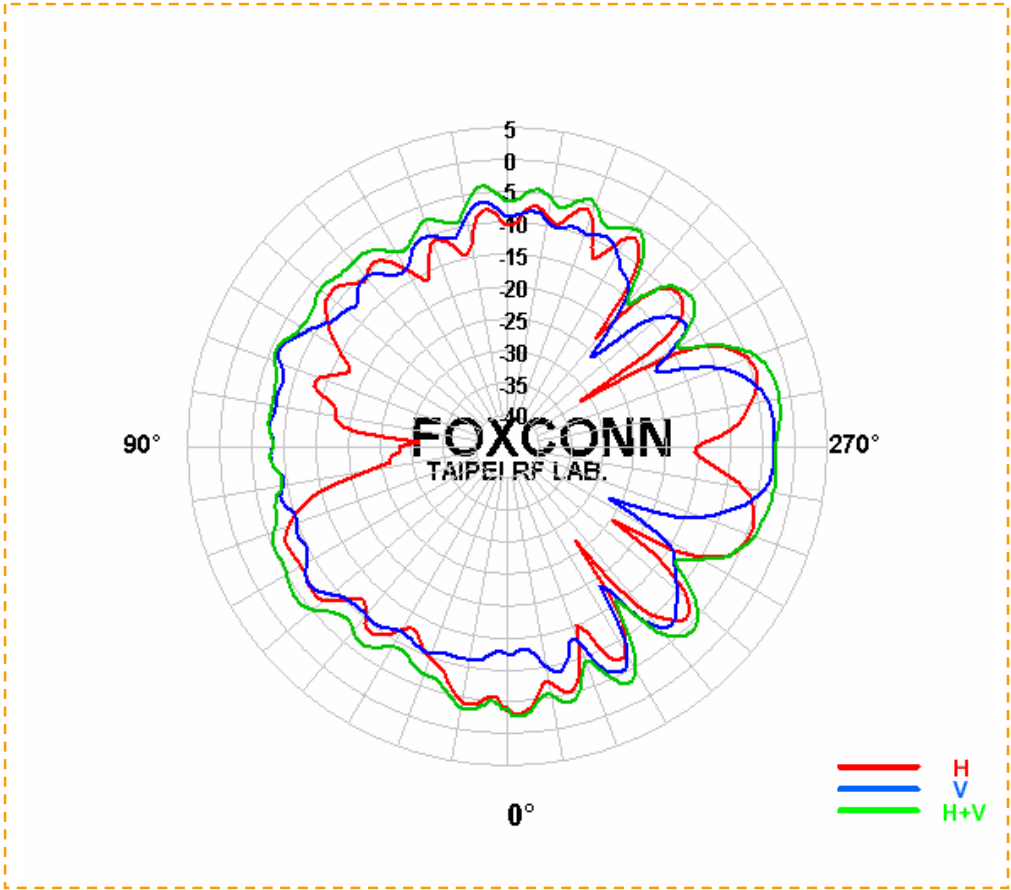
Center Frequency	5150 MHz
Horizontal (dBi) peak	-3.38
Vertical (dBi) peak	-3.15
Horz+Vert (dBi) peak	-2.66

Auxiliary antenna: 5250 MHz



Center Frequency	5250 MHz
Horizontal (dBi) peak	-4.02
Vertical (dBi) peak	-3.74
Horz+Vert (dBi) peak	-3.05

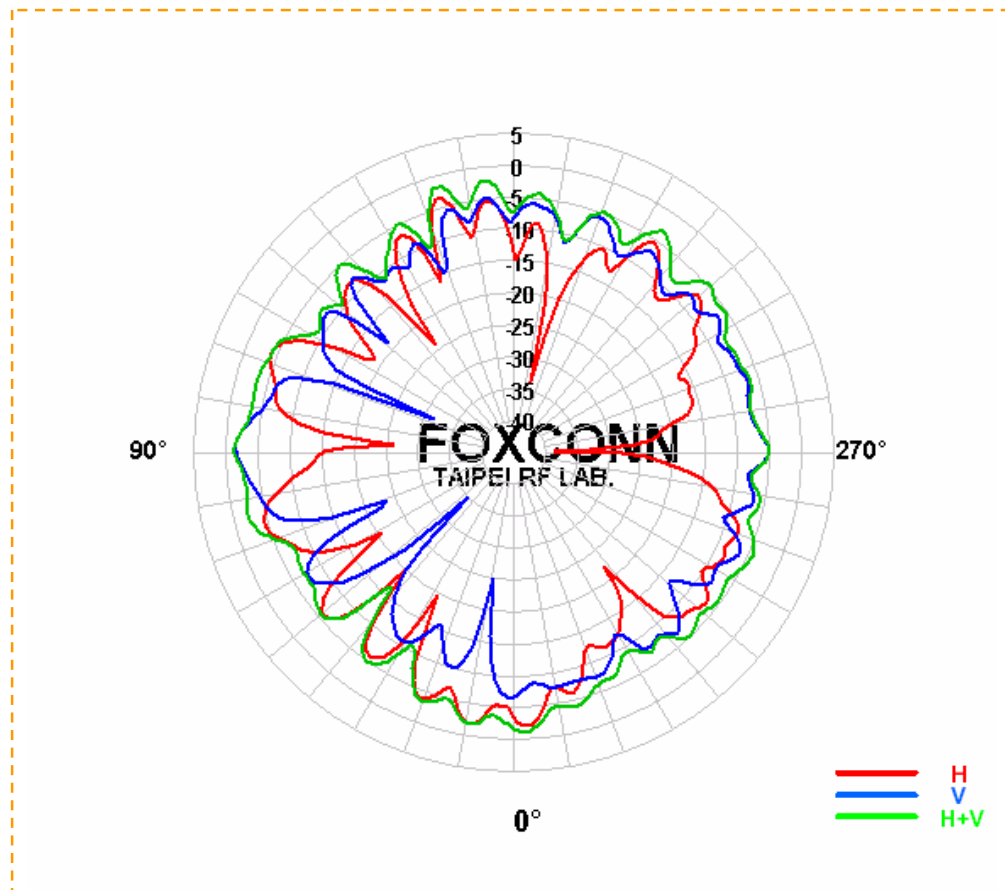
Auxiliary antenna: 5350 MHz



Center Frequency	5350 MHz
Horizontal (dBi) peak	-2.94
Vertical (dBi) peak	-2.99
Horz+Vert (dBi) peak	-1.62

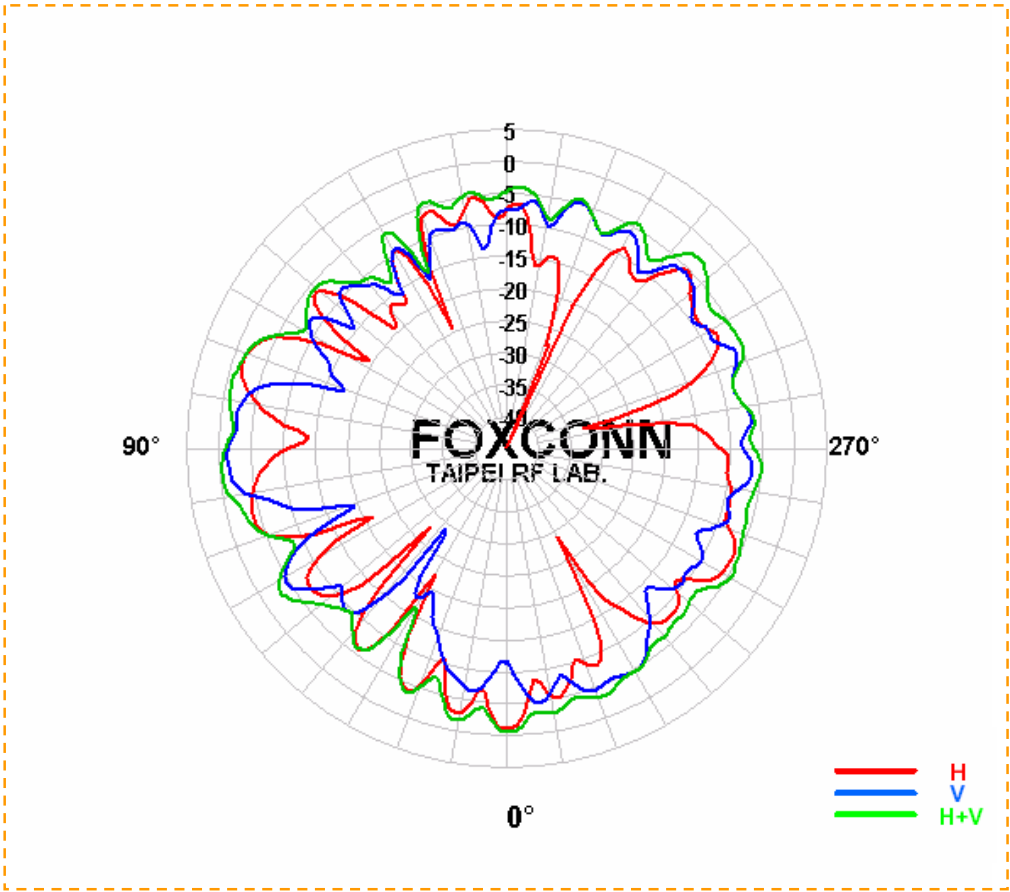
5470-5725MHz radiation characteristic

Main antenna: 5470 MHz



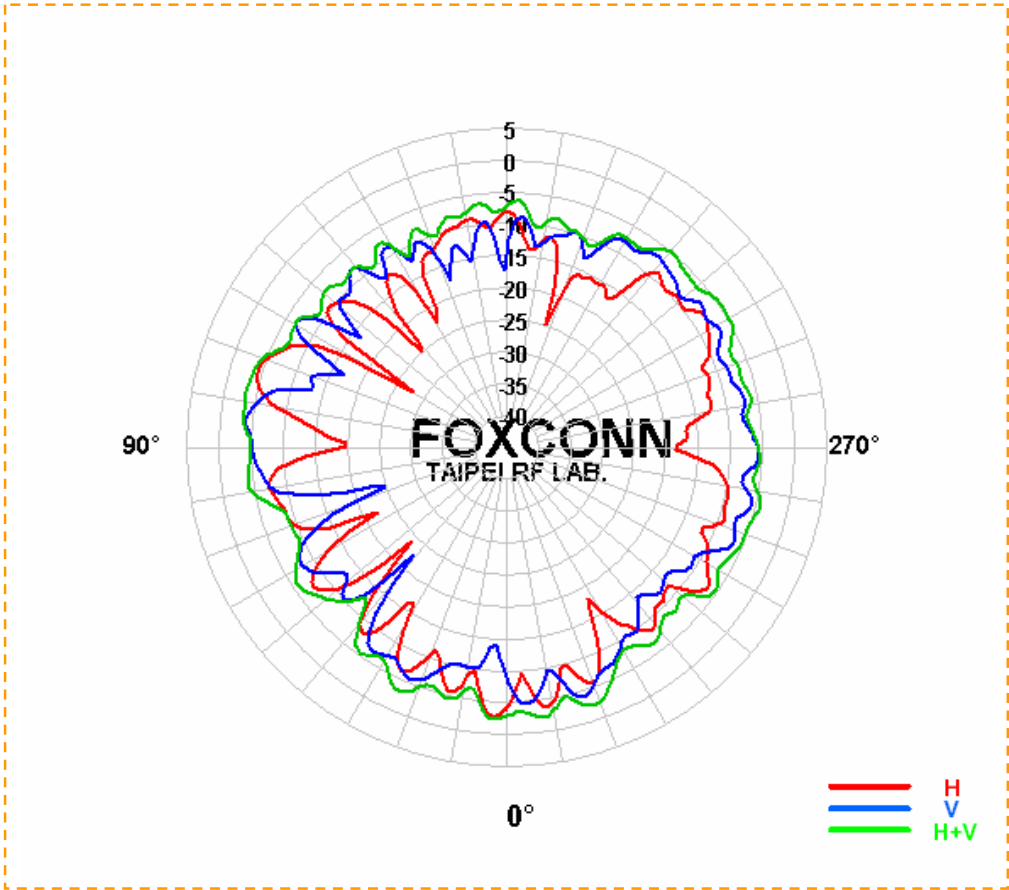
Center Frequency	5470 MHz
Horizontal (dBi) peak	-1.94
Vertical (dBi) peak	-1.46
Horz+Vert (dBi) peak	-1.14

Main antenna: 5597.5 MHz



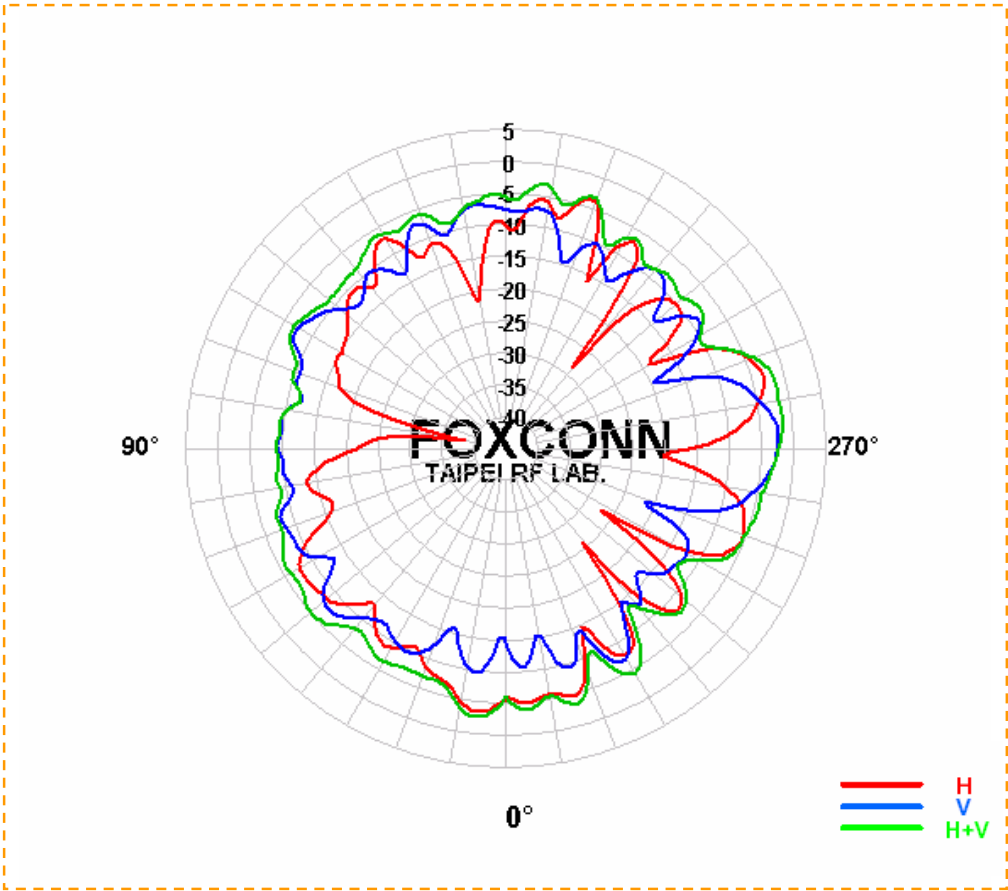
Center Frequency	5597.5 MHz
Horizontal (dBi) peak	-1.09
Vertical (dBi) peak	-1.30
Horz+Vert (dBi) peak	-0.38

Main antenna: 5725 MHz



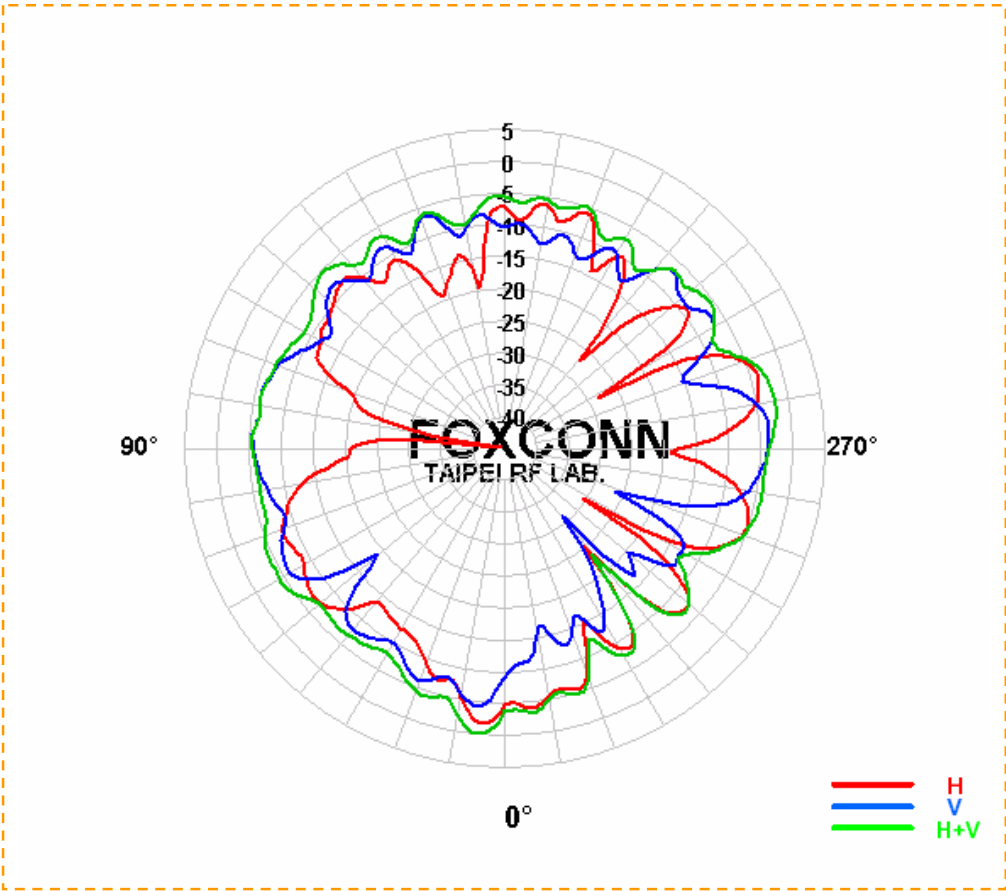
Center Frequency	5725 MHz
Horizontal (dBi) peak	-2.68
Vertical (dBi) peak	-4.04
Horz+Vert (dBi) peak	-2.23

Auxiliary antenna: 5470 MHz



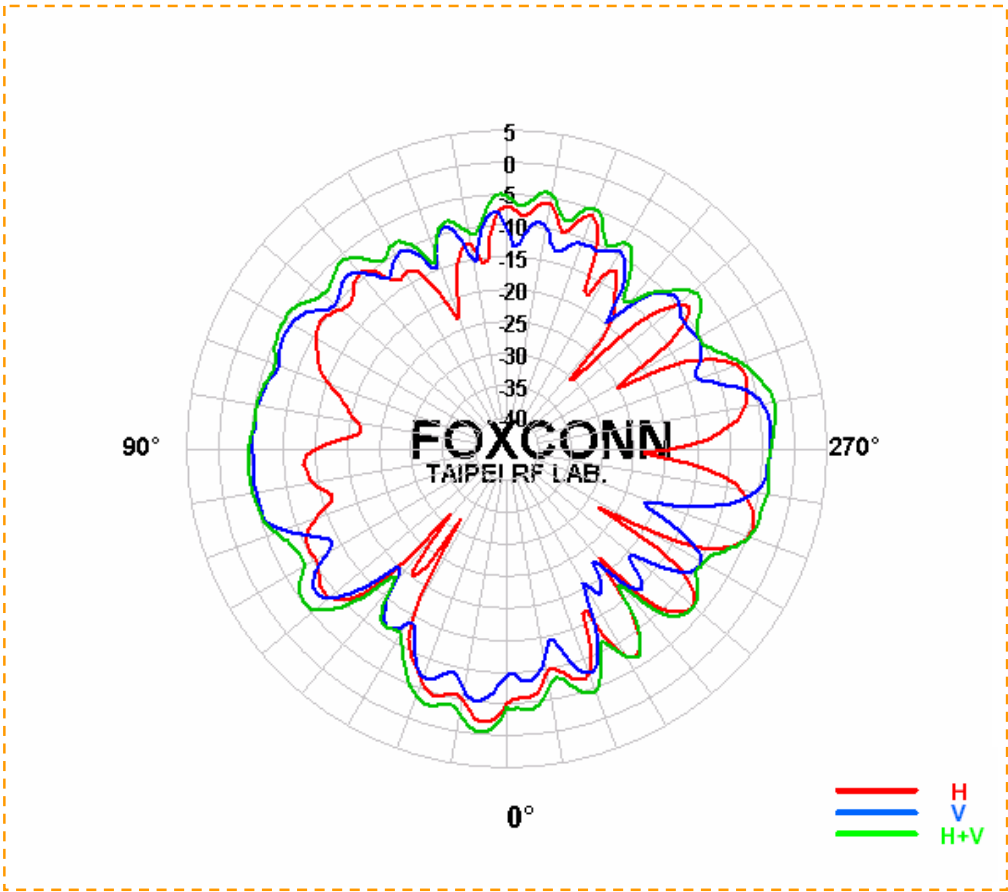
Center Frequency	5470 MHz
Horizontal (dBi) peak	-3.09
Vertical (dBi) peak	-2.23
Horz+Vert (dBi) peak	-1.37

Auxiliary antenna: 5597.5 MHz



Center Frequency	5597.5 MHz
Horizontal (dBi) peak	-1.34
Vertical (dBi) peak	-3.45
Horz+Vert (dBi) peak	-0.04

Auxiliary antenna: 5725 MHz



Center Frequency	5725 MHz
Horizontal (dBi) peak	-1.89
Vertical (dBi) peak	-3.54
Horz+Vert (dBi) peak	-0.37