

*Dell Laguna Antenna
Specification for FCC*

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Antenna Specifications

Antenna Type (Material, Technology)	Phosphor Bronze, PIFA type
Antenna Model Number	WDAN-DCDA Q001 / Q002 (Dell p/n: F4797, U5058)
Operating Frequency Range(s)	2.4 ~ 2.5GHz, 4.9 ~ 5.875GHz
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	2.60dBi
Peak Gain (802.11a / 5GHz Band) (dBi)	0.37dBi
Radio Connector Type	HRS U.FL-LP-088
Mid-Line Connector Type (If Applicable)	HRS U.FL-LP/LJ Connector

Note: Peak Gain should include all system losses (connector, cable, etc)

Cable Specifications

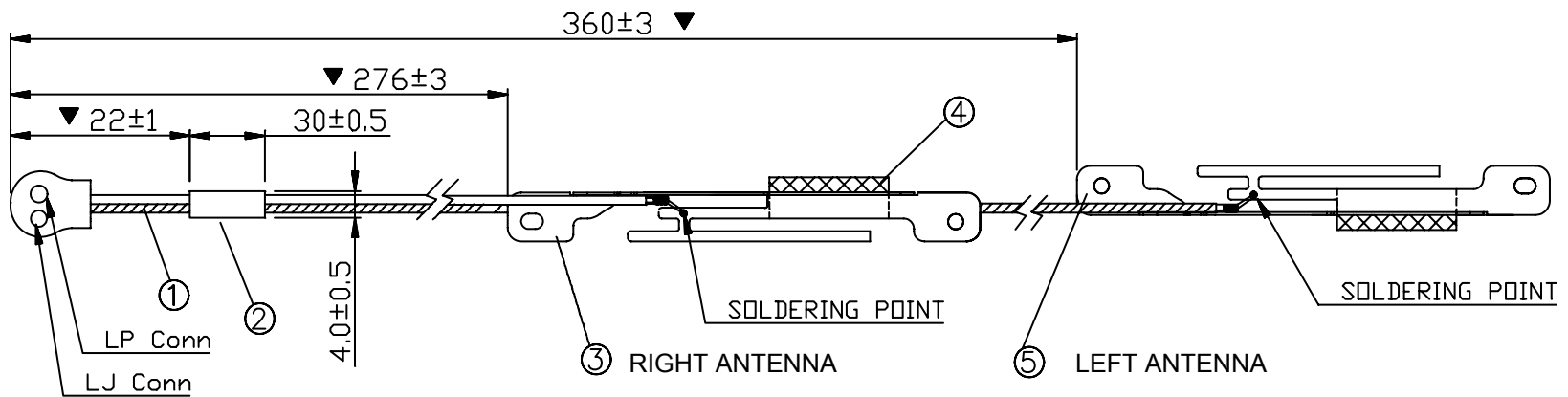
Cable Parameters	Main			Aux		
	LCD Side	Base Side	Total	LCD Side	Base Side	Total
Length (mm)	276	207	483	360	198	558
Loss (Including Connectors) (dB)			1.192dB => 2.4GHz 1.784dB => 5.15GHz 1.920dB => 5.8GHz			1.377dB => 2.4GHz 2.061dB => 5.15GHz 2.219dB => 5.8GHz
Description (Color, Diameter, Manufacturer)	Color => White, O.D. 1.37mm, Foxconn, Kurabe, Junkosha, or Nissei Coaxial cable			Color => Black, O.D. 1.37mm, Foxconn, Kurabe, Junkosha, or Nissei Coaxial cable		

Note: For single cable assembly (no mid-line connector), use the 'Total' column for each cable length and list N/A in the 'LCD' and 'Base' fields
Cable Loss should be reported for the total cable assembly (for both Main and Aux antennas)

Antenna Assembly Drawing

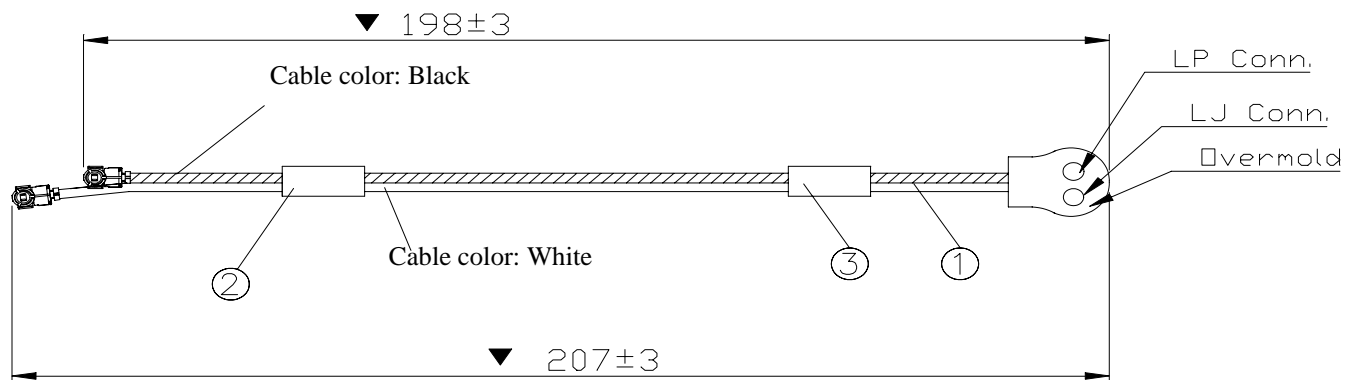
1. LCD Side

P/N: WDAN-DCDAQ002



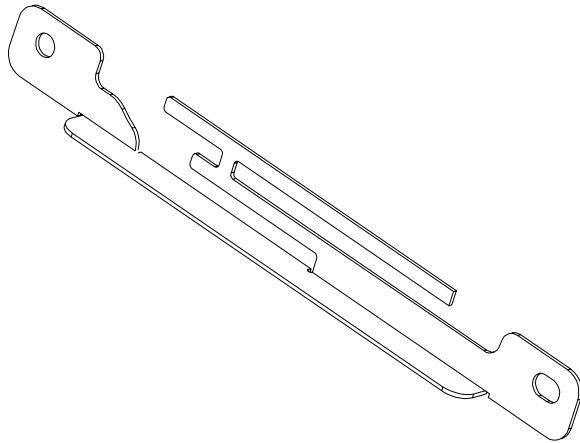
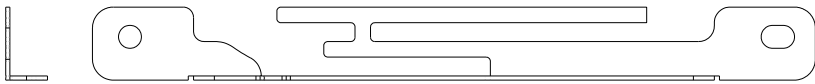
2. Base Side

P/N: WDAN-DCDAQ001

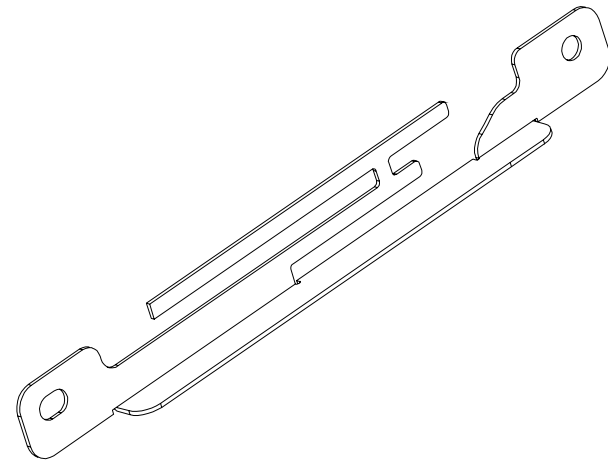
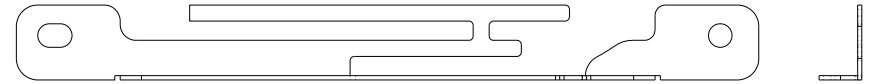


Antenna Body Drawing / Photo

(Left Antenna)



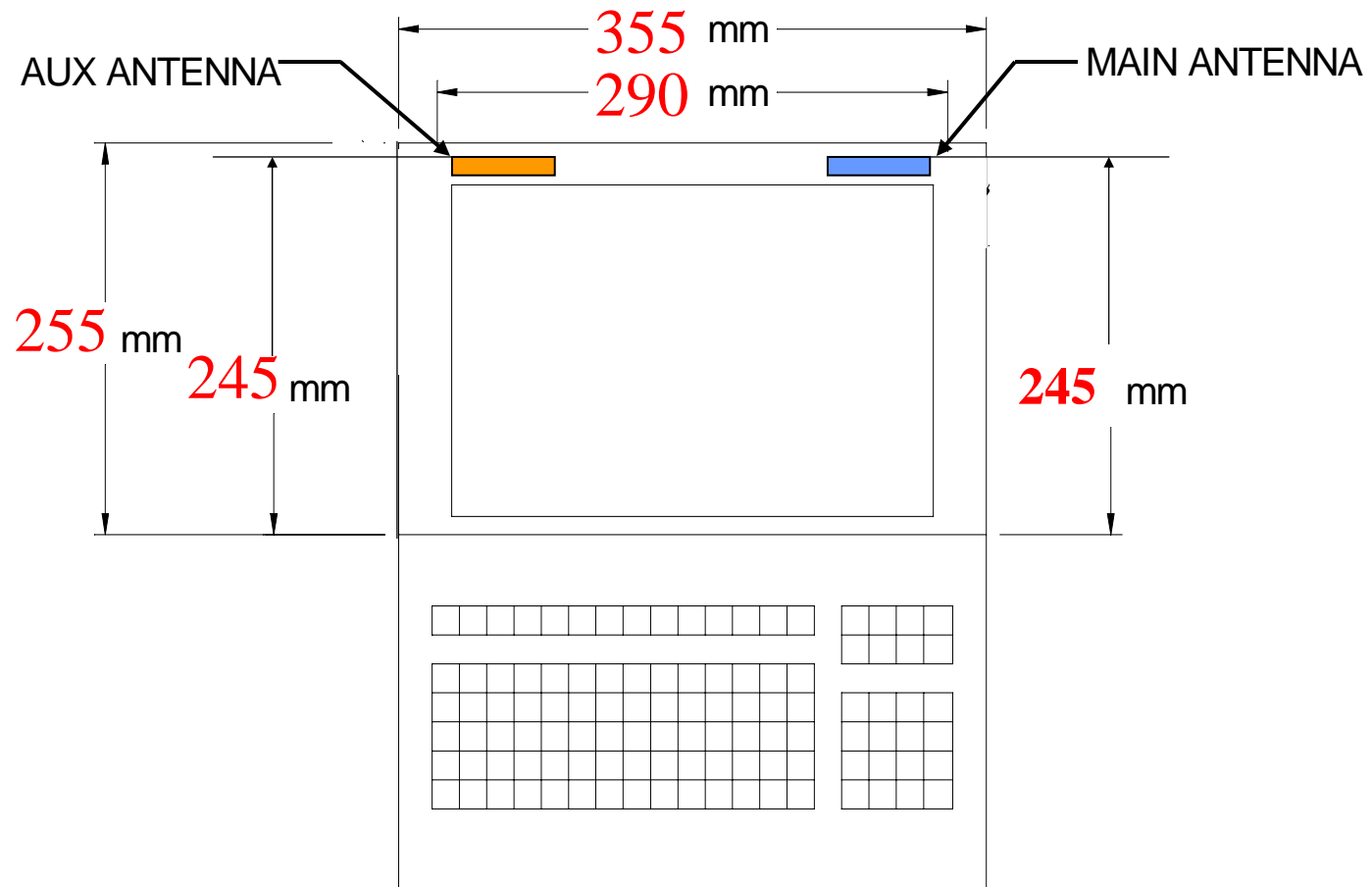
(Right Antenna)



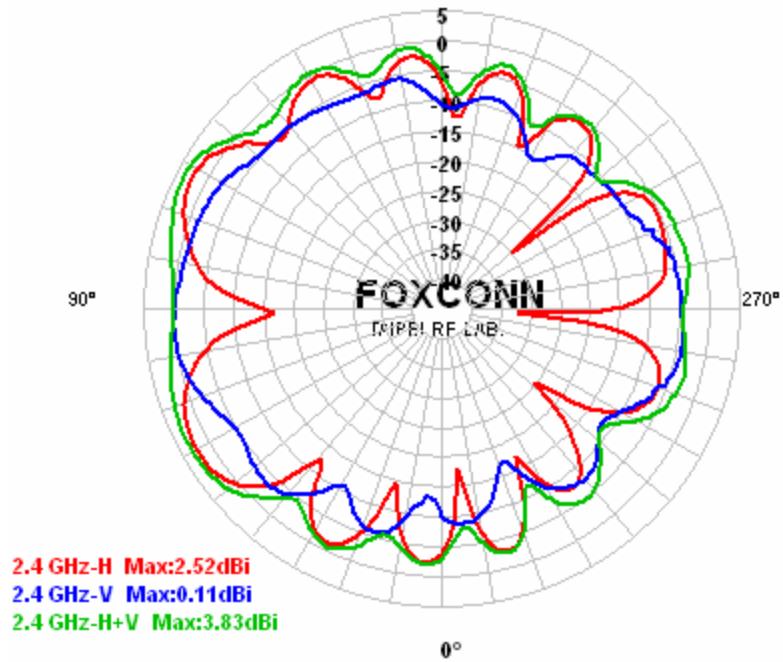




Antenna Location in NB

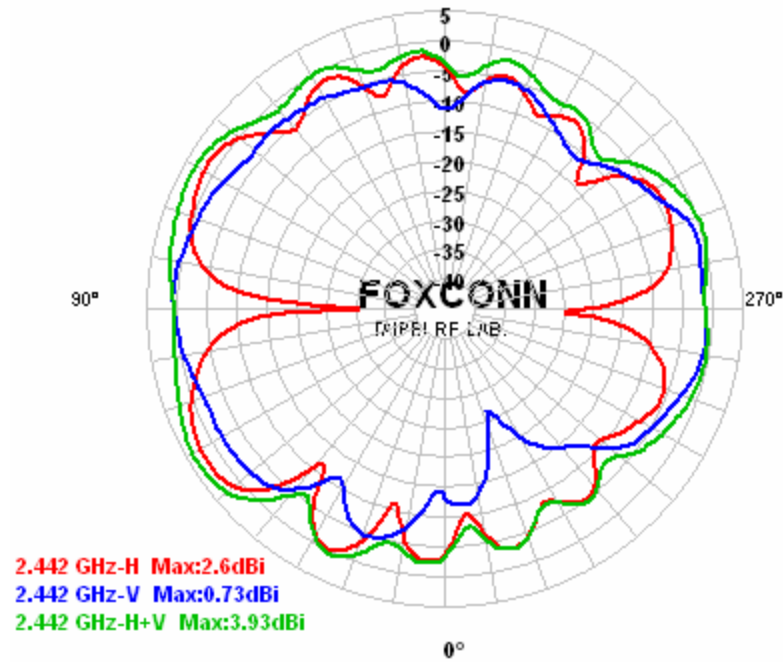


Main antenna: 2400 MHz



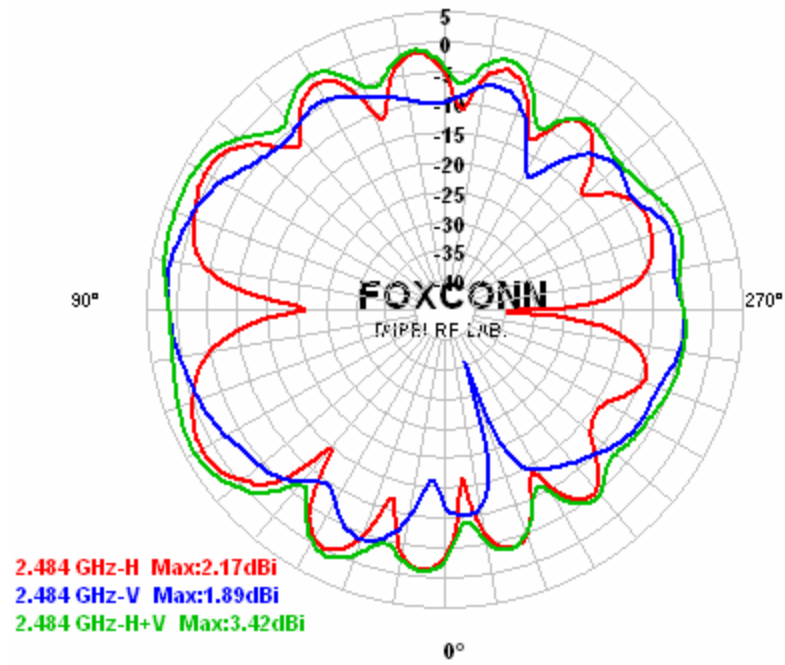
Center Frequency	2400 MHz
Horizontal peak gain (dBi)	2.52
Vertical peak gain (dBi)	0.11
Horz +Vert peak gain(dBi)	3.83

Main antenna: 2442 MHz



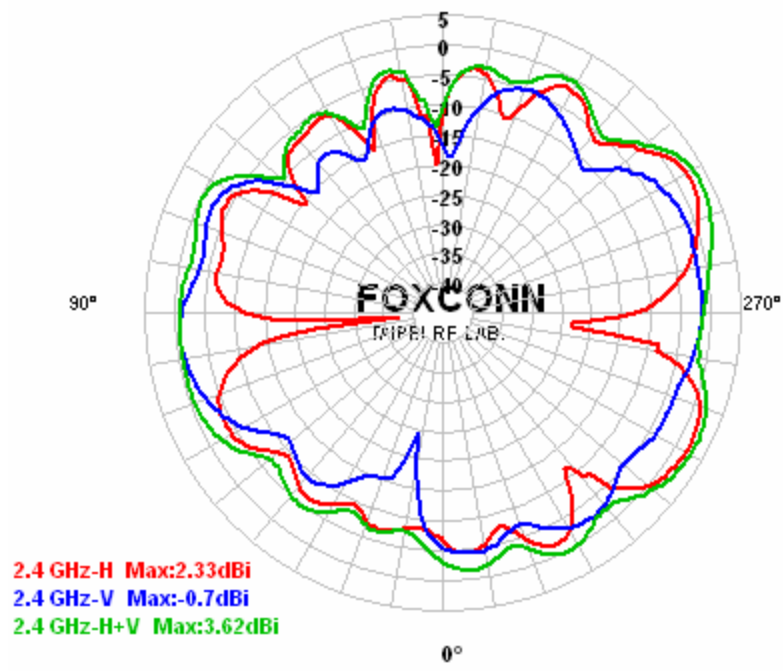
Center Frequency	2442 MHz
Horizontal peak gain (dBi)	2.60
Vertical peak gain (dBi)	0.73
Horz +Vert peak gain(dBi)	3.93

Main antenna: 2484 MHz



Center Frequency	2484 MHz
Horizontal peak gain (dBi)	2.17
Vertical peak gain (dBi)	1.89
Horz +Vert peak gain(dBi)	3.42

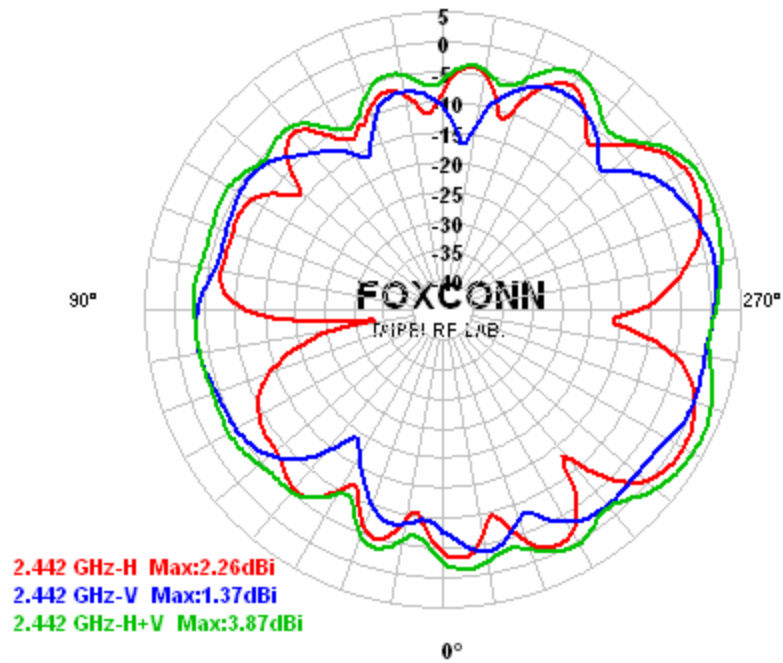
Aux antenna: 2400 MHz



2.4 GHz-H Max:2.33dBi
2.4 GHz-V Max:-0.7dBi
2.4 GHz-H+V Max:3.62dBi

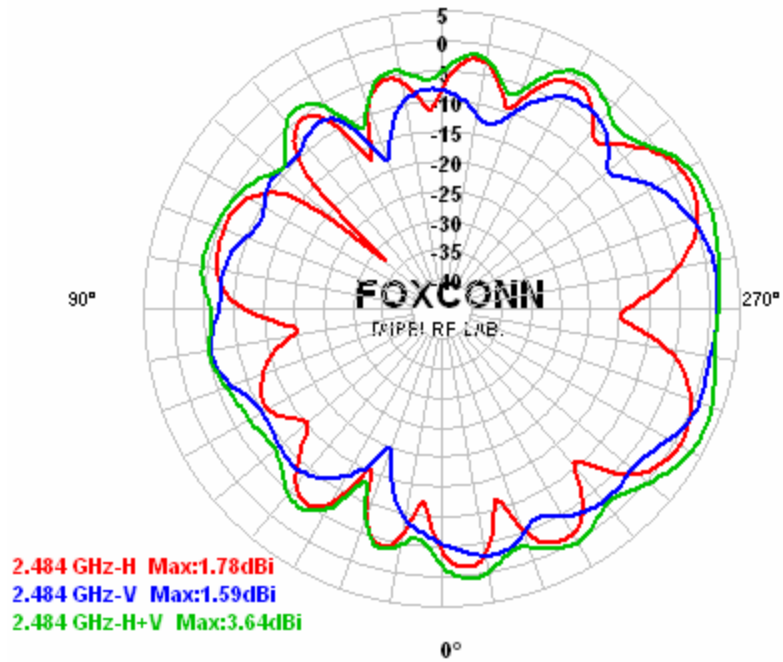
Center Frequency	2400 MHz
Horizontal peak gain (dBi)	2.33
Vertical peak gain (dBi)	-0.70
Horz +Vert peak gain(dBi)	3.62

Aux antenna: 2442 MHz



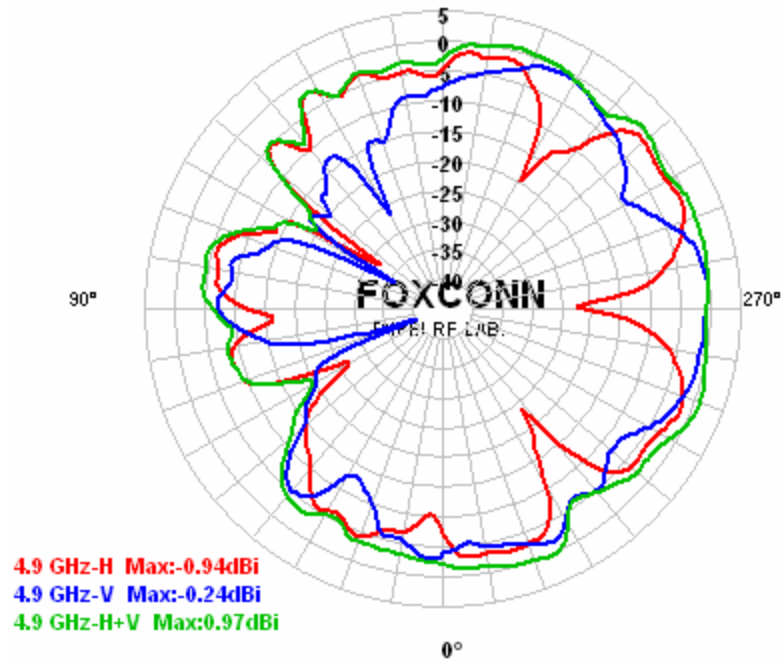
Center Frequency	2442 MHz
Horizontal peak gain (dBi)	2.26
Vertical peak gain (dBi)	1.37
Horz +Vert peak gain(dBi)	3.87

Aux antenna: 2484 MHz



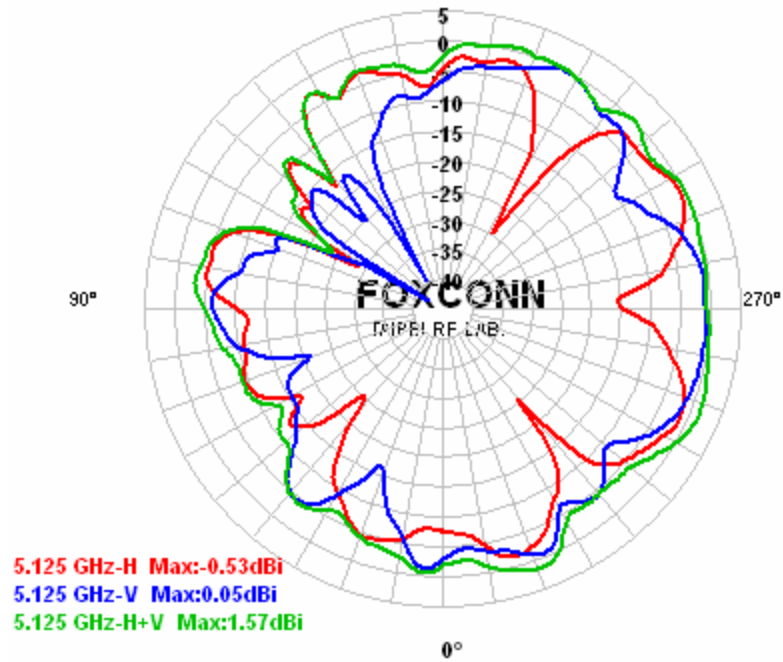
Center Frequency	2484 MHz
Horizontal peak gain (dBi)	1.78
Vertical peak gain (dBi)	1.59
Horz +Vert peak gain(dBi)	3.64

Main antenna: 4900 MHz



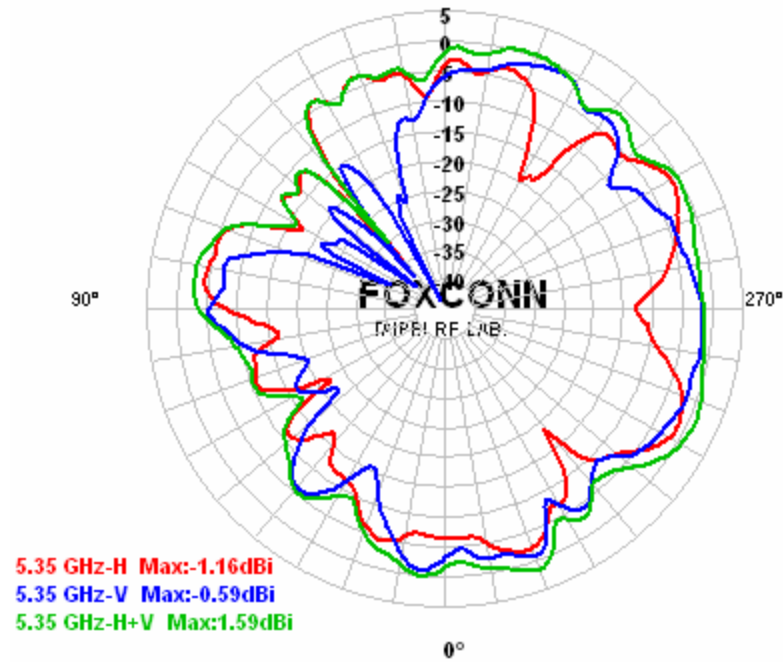
Center Frequency	4900 MHz
Horizontal peak gain (dBi)	-0.94
Vertical peak gain (dBi)	-0.24
Horz +Vert peak gain(dBi)	0.97

Main antenna: 5125 MHz



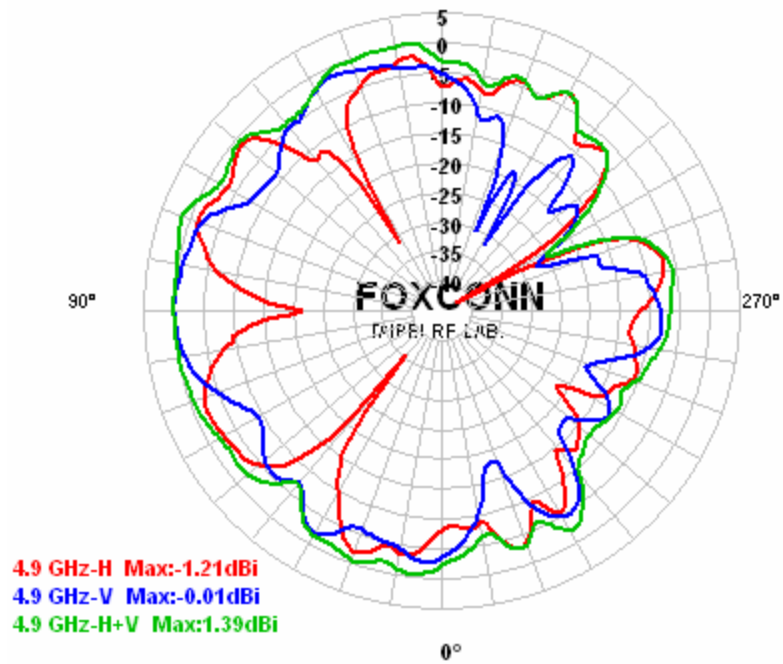
Center Frequency	5125 MHz
Horizontal peak gain (dBi)	-0.53
Vertical peak gain (dBi)	0.05
Horz +Vert peak gain(dBi)	1.57

Main antenna: 5350 MHz



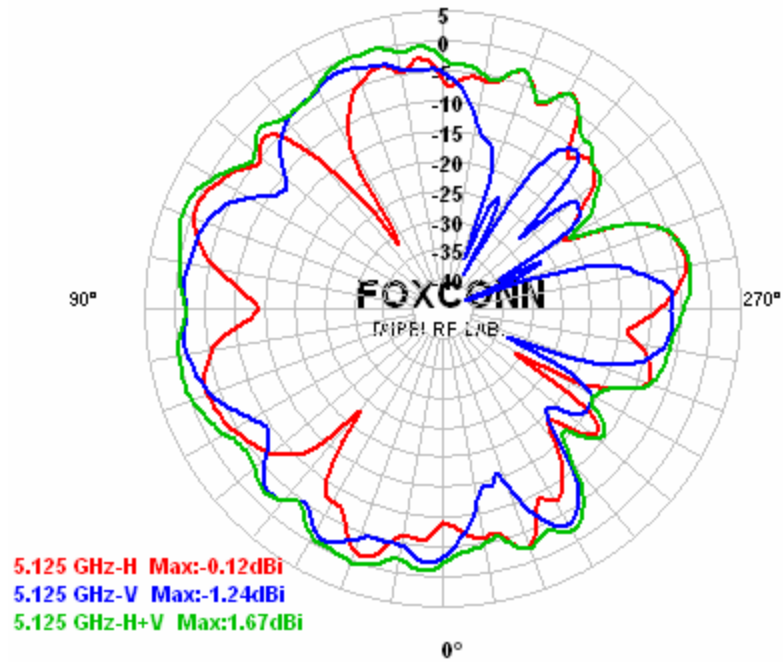
Center Frequency	5350 MHz
Horizontal peak gain (dBi)	-1.16
Vertical peak gain (dBi)	-0.59
Horz +Vert peak gain(dBi)	1.59

Aux antenna: 4900 MHz



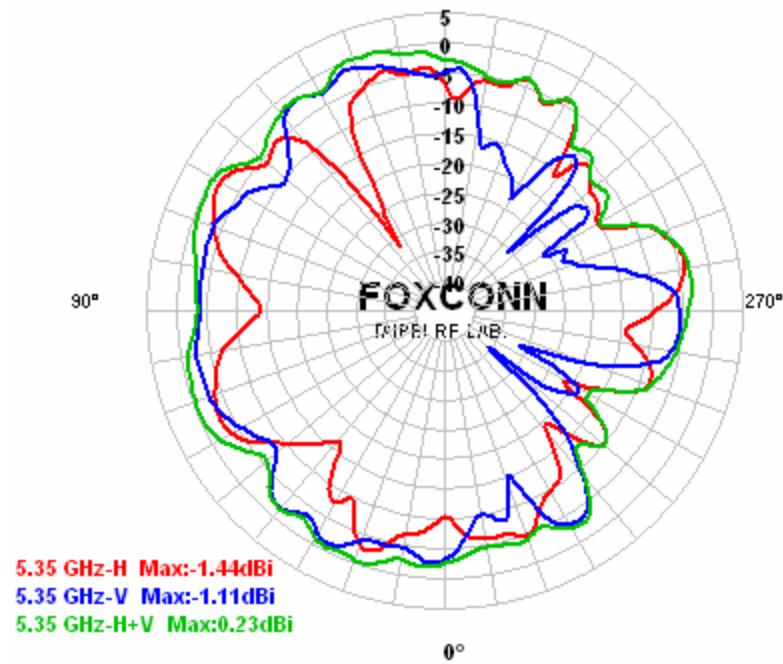
Center Frequency	4900 MHz
Horizontal peak gain (dBi)	-1.21
Vertical peak gain (dBi)	-0.01
Horz +Vert peak gain(dBi)	1.39

Aux antenna: 5125 MHz



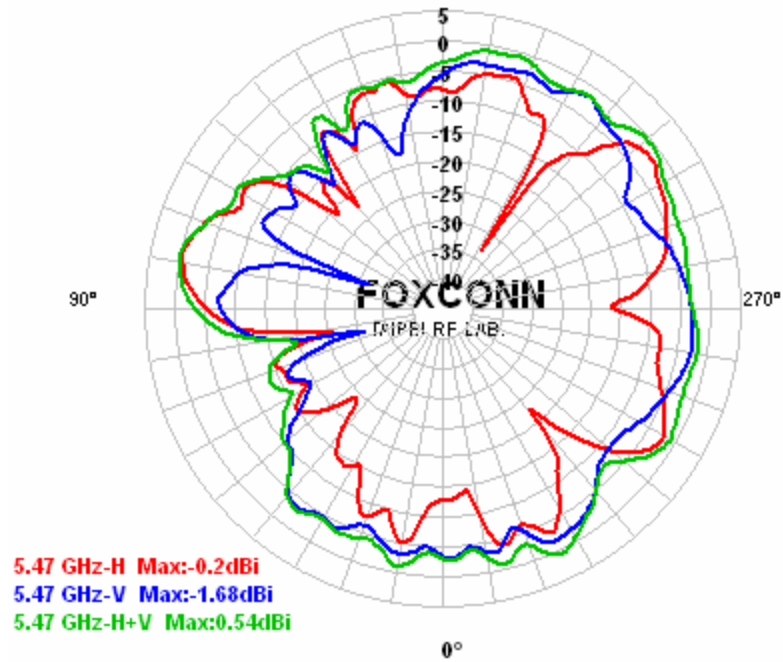
Center Frequency	5125 MHz
Horizontal peak gain (dBi)	-0.12
Vertical peak gain (dBi)	-1.24
Horz +Vert peak gain(dBi)	1.67

Aux antenna: 5350 MHz



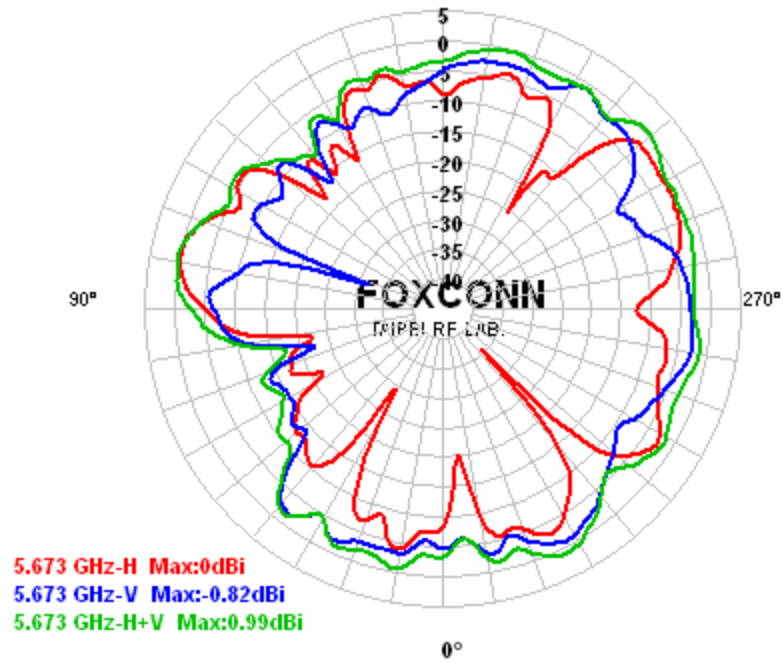
Center Frequency	5350 MHz
Horizontal peak gain (dBi)	-1.44
Vertical peak gain (dBi)	-1.11
Horz +Vert peak gain(dBi)	0.23

Main antenna: 5470 MHz



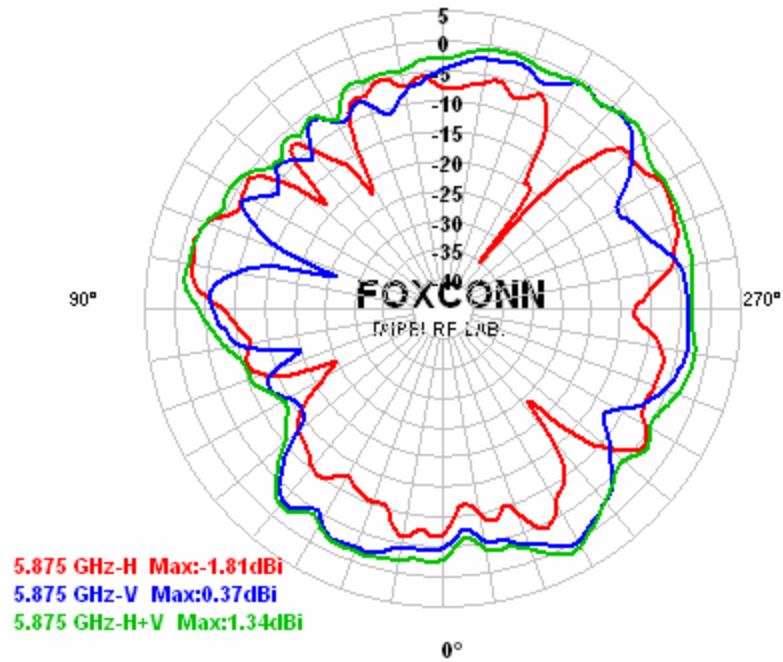
Center Frequency	5470 MHz
Horizontal peak gain (dBi)	-0.20
Vertical peak gain (dBi)	-1.68
Horz +Vert peak gain(dBi)	0.54

Main antenna: 5673 MHz



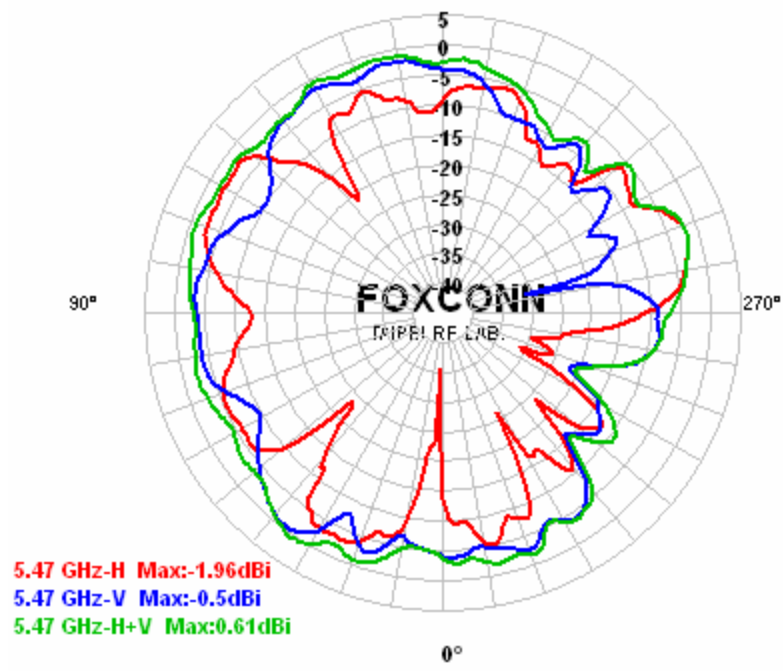
Center Frequency	5673 MHz
Horizontal peak gain (dBi)	0.00
Vertical peak gain (dBi)	-0.82
Horz +Vert peak gain(dBi)	0.99

Main antenna: 5875 MHz



Center Frequency	5875 MHz
Horizontal peak gain (dBi)	-1.81
Vertical peak gain (dBi)	0.37
Horz +Vert peak gain(dBi)	1.34

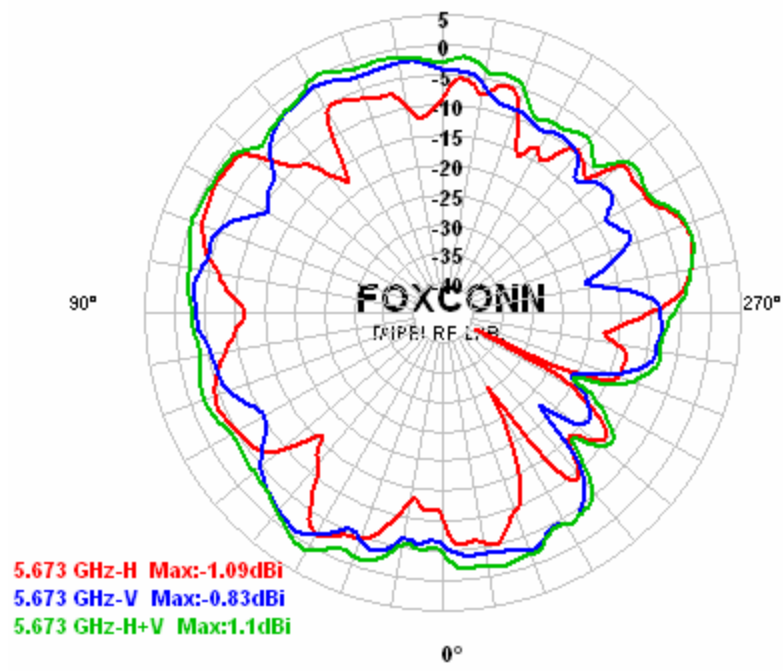
Aux antenna: 5470 MHz



5.47 GHz-H Max:-1.96dBi
5.47 GHz-V Max:-0.5dBi
5.47 GHz-H+V Max:0.61dBi

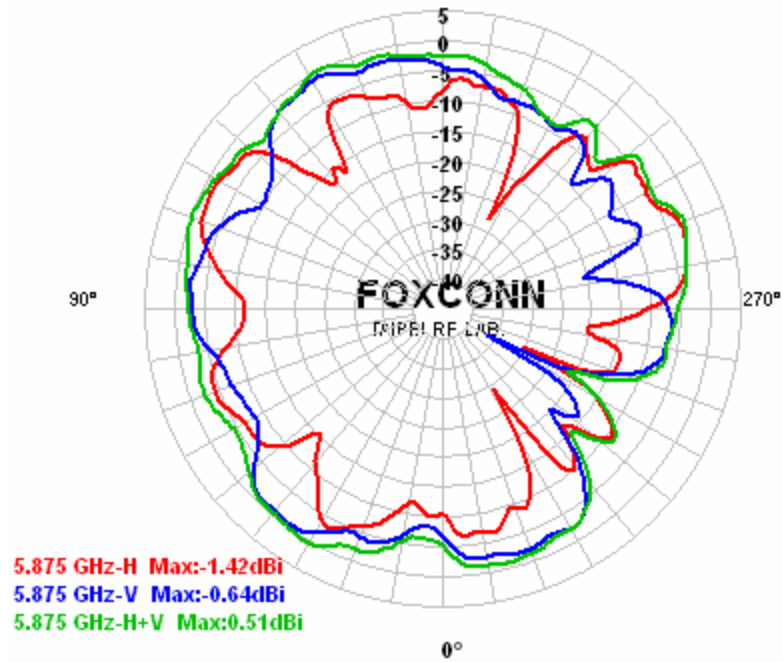
Center Frequency	5470 MHz
Horizontal peak gain (dBi)	-1.96
Vertical peak gain (dBi)	-0.50
Horz +Vert peak gain(dBi)	0.61

Aux antenna: 5673 MHz



Center Frequency	5673 MHz
Horizontal peak gain (dBi)	-1.09
Vertical peak gain (dBi)	-0.83
Horz +Vert peak gain(dBi)	1.10

Aux antenna: 5875 MHz



Center Frequency	5875 MHz
Horizontal peak gain (dBi)	-1.42
Vertical peak gain (dBi)	-0.64
Horz +Vert peak gain(dBi)	0.51