Venice Antenna Regulatory Information

Description : **Dual-band Antenna(Main+Aux)**
Quanta Computer Inc. P/N: **BA42-00121A**

Wistron NeWeb P/N: **BA42-00121A**

Wistron NeWeb Corporation

No. 10-1,Li-hsin Road I,
Science-base Industrial Park,
Hsinchu 300,Taiwan, R.O.C.
Tel: 886-3-6667799#6572
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Provided by **Wistron NeWeb Corp.**	Reviewed by **Wistron NeWeb Corp.**
Kai Liu	***Patrick Lee***

Antenna Specifications

Antenna Type (Material, Technology)	**Technology => PIFA, Material =>Metal sheet (For both main and aux antenna)**
Antenna Model Number	**Venice / EBU-S / BA42-00121A**
Operating Frequency Range(s)	**2.4 ~ 2.4835GHz / 4.9 ~ 5.35GHz / 5.47 ~ 5.875GHz**
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	**Main antenna: 1.77dBi, Aux antenna: 1.70dBi**
Peak Gain (802.11a / 5GHz Band) (dBi)	**Main antenna: 1.43dBi, Aux antenna: 0.98dBi**
Radio Connector Type	**IPEX MHF 37type connector, HRS U.FL-LP**
Mid-Line Connector Type (If Applicable)	**NA**

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)	NA	NA	452	NA	NA	594
Loss (Including Connectors) (dB) (2.4GHz / 5GHz)	NA	NA	1.25/2.2	NA	NA	1.91/3.2
Description (Color, Diameter, Manufacturer)	Color: white Diameter: Φ1.37mm Manufacturer: Junkosha, Kurabe or equivlent cable			Color: black Diameter: Φ1.37mm Manufacturer: Junkosha, Kurabe or equivlent 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)

- **Peak Gain**

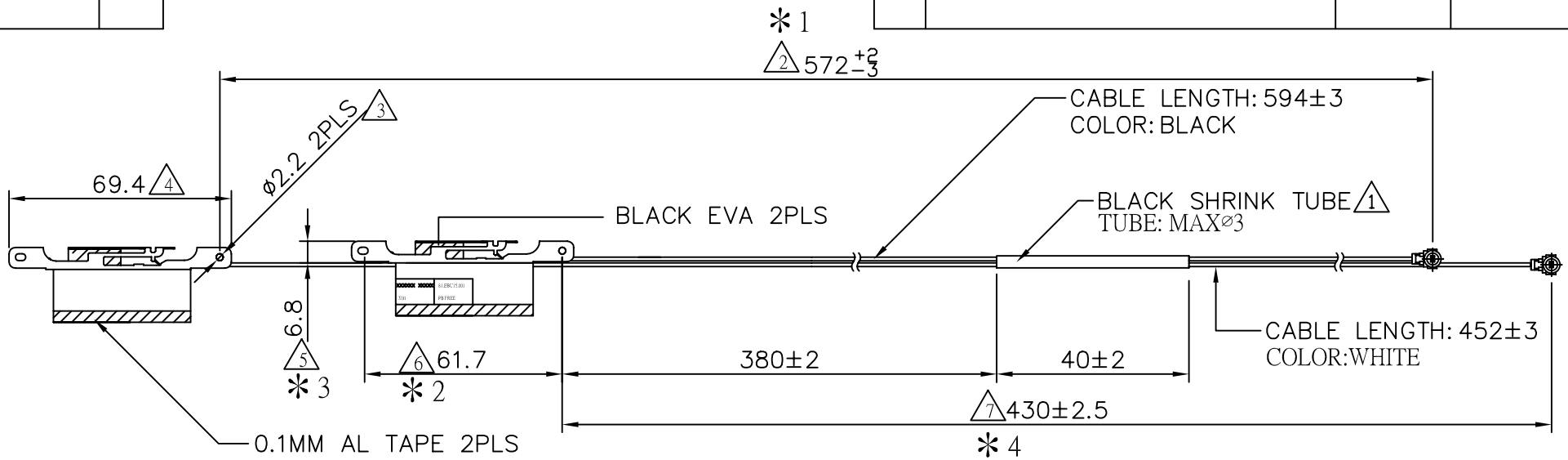
Frequency	Main antenna Max value (dBi)			Aux antenna Max value (dBi)			Pass/ NG
	H-pol	V pol	Total	H-pol	V pol	Total	
2400(MHz)	1.73	0.72	2.64	1.50	0.95	2.04	PASS
2450(MHz)	1.27	1.49	2.55	1.70	0.42	2.80	PASS
2500(MHz)	1.68	1.77	2.75	1.22	-0.28	2.26	PASS
4900(MHz)	1.06	-2.30	2.41	-0.07	-2.20	0.42	PASS
5125(MHz)	0.37	0.93	2.12	-0.28	0.51	2.43	PASS
5350(MHz)	0.01	-0.27	1.38	0.38	-0.31	1.35	PASS
5470(MHz)	0.69	0.70	0.73	0.67	-0.45	1.45	PASS
5672.5(MHz)	1.30	1.43	1.66	-0.38	0.36	0.40	PASS
5875(MHz)	0.84	0.20	1.41	-0.93	0.98	0.63	PASS

- **Antenna Dimensions (Mechanical drawings)**
  (See Next Page)

WNC PROPRIETARY

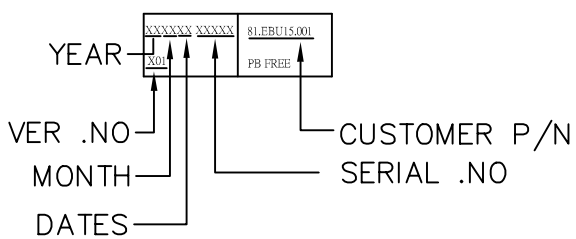
PART NUMBER BLOCK	
PART NUMBER	REV

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



* : CPK

△N : FAI



	EBU-S
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:

INTEGRAL DIMENSIONS	± 0.2	ANGULAR DIMENSIONS	± 1°
1 PLACE DECIMAL	± 0.1	HOLES UNDER ø5.00	± 0.05
2 PLACE DECIMALS	± 0.05		

MATERIAL: SEE NOTES

FINISH: SEE NOTES

THIRD ANGLE PROJECTION

DRAWN	GUO CHANG	07/09/04
ENGR	JUSTIN CHANG	07/09/04
APVD		

wistron
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DWG TITLE

OUTLINE DRAWING, EBU-S

SIZE	DWG NO.	REV
A4	C414-57-EBU15-001	X01

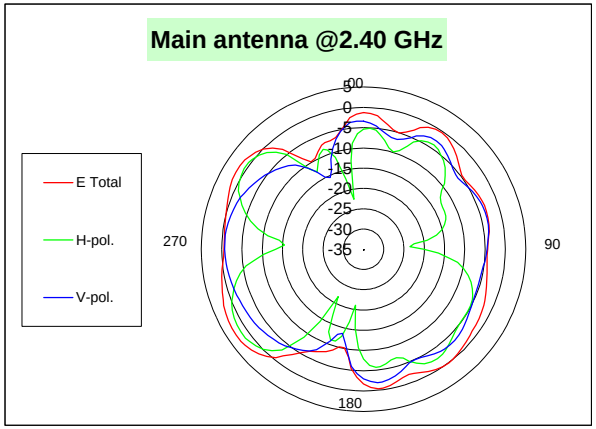
SCALE	1/2	SHEET	1 OF 1

- **Pictures of Antennas**

Main Antenna	Aux Antenna
	

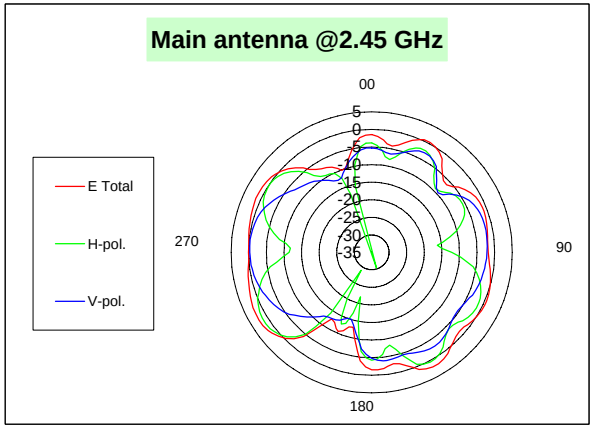
2G4 ISM (2.400 GHz - 2.4835 GHz) Antenna Radiation Patterns

Main antenna @2.40 GHz



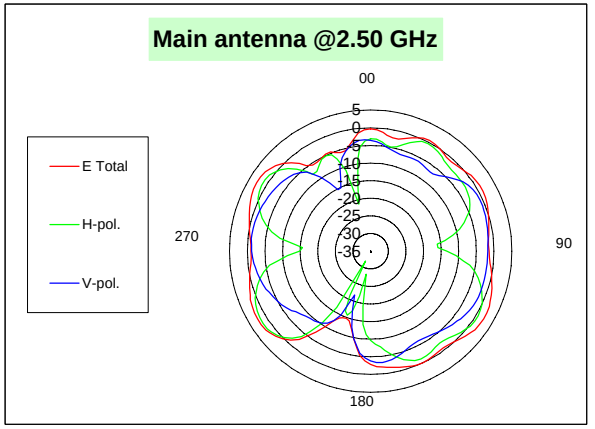
	Total	H-pol	V pol
Peak Gain	2.64	1.73	0.72
Average Gain	-1.49	-3.61	-3.91

Main antenna @2.45 GHz



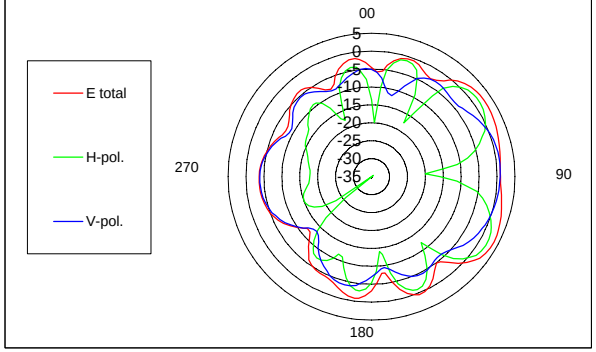
	Total	H-pol	V pol
Peak Gain	2.55	1.27	1.49
Average Gain	-1.43	-3.76	-3.11

Main antenna @2.50 GHz



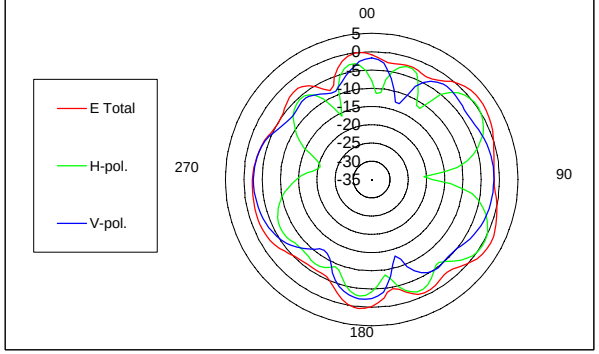
	Total	H-pol	V pol
Peak Gain	2.75	1.68	1.77
Average Gain	-1.48	-3.94	-3.13

Aux antenna @2.40 GHz



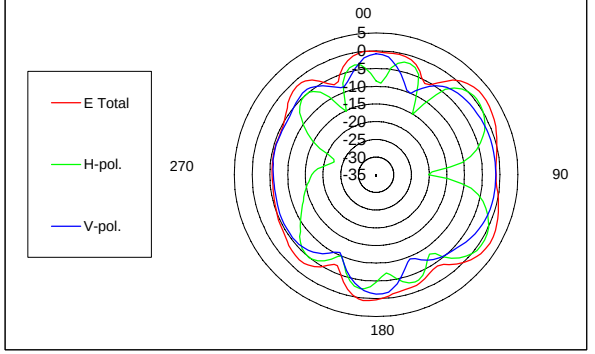
	Total	H-pol	V pol
Peak Gain	2.04	0.66	0.95
Average Gain	-1.89	-3.50	-4.65

Aux antenna @2.45 GHz



	Total	H-pol	V pol
Peak Gain	2.80	1.70	0.42
Average Gain	-1.76	-3.55	-4.26

Aux antenna @2.50 GHz

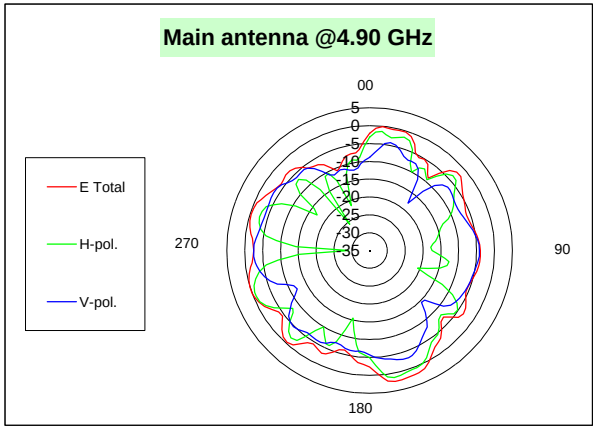


	Total	H-pol	V pol
Peak Gain	2.26	1.22	-0.28
Average Gain	-1.59	-3.87	-4.29

Note: The outer circle approximately represents the 5 dBi gain circle.
Each circle with 5 dBi difference (Max=5 dBi and Min=-35 dBi)

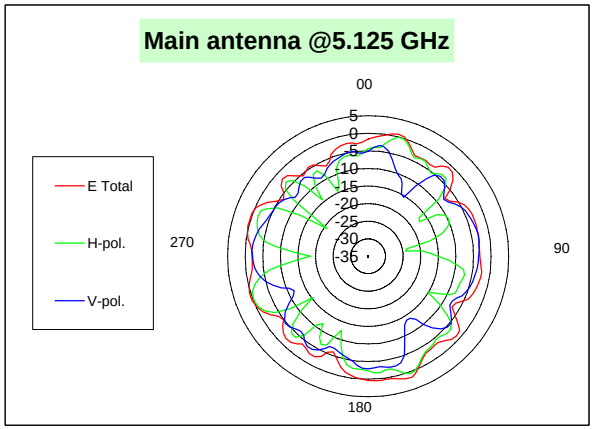
U-NII Band (4.90 GHz - 5.350 GHz) Antenna Radiation Patterns

Main antenna @4.90 GHz



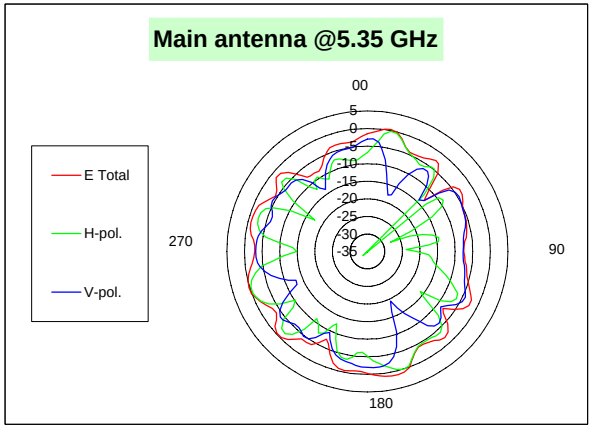
	Total	H-pol	V pol
Peak Gain	2.41	1.06	-2.30
Average Gain	-2.96	-4.51	-6.37

Main antenna @5.125 GHz



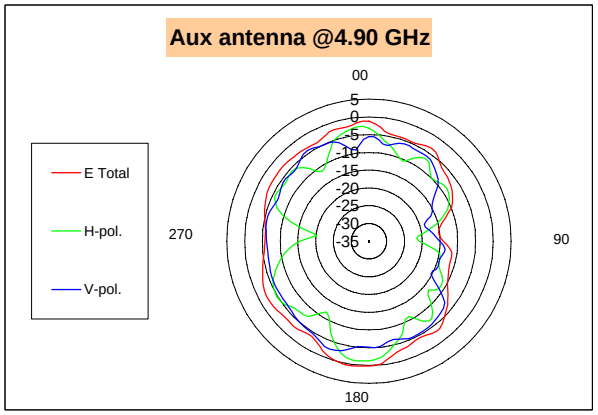
	Total	H-pol	V pol
Peak Gain	2.12	0.37	0.93
Average Gain	-2.98	-4.87	-5.03

Main antenna @5.35 GHz



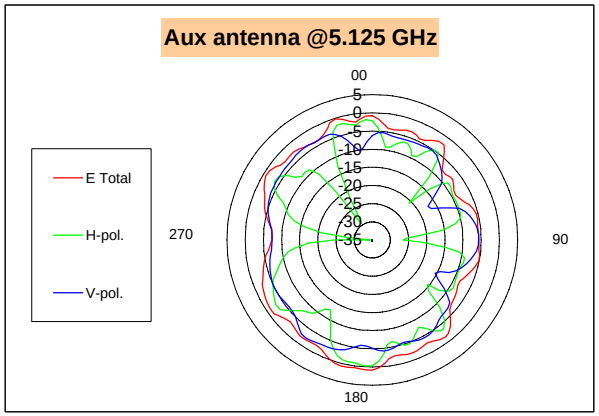
	Total	H-pol	V pol
Peak Gain	1.38	0.01	-0.27
Average Gain	-2.83	-4.89	-5.31

Aux antenna @4.90 GHz



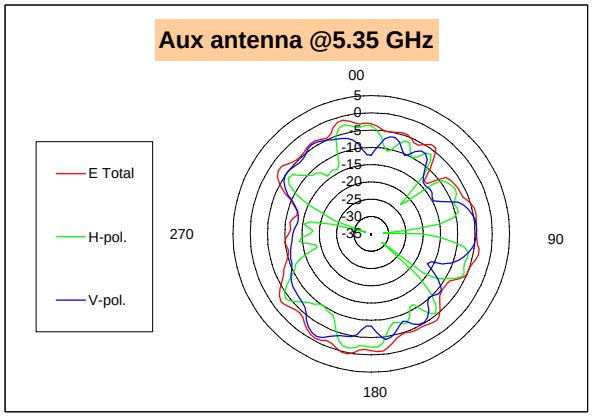
	Total	H-pol	V pol
Peak Gain	0.42	-0.07	-2.20
Average Gain	-3.48	-5.31	-6.67

Aux antenna @5.125 GHz



	Total	H-pol	V pol
Peak Gain	2.43	-0.28	0.51
Average Gain	-2.47	-5.53	-5.05

Aux antenna @5.35 GHz

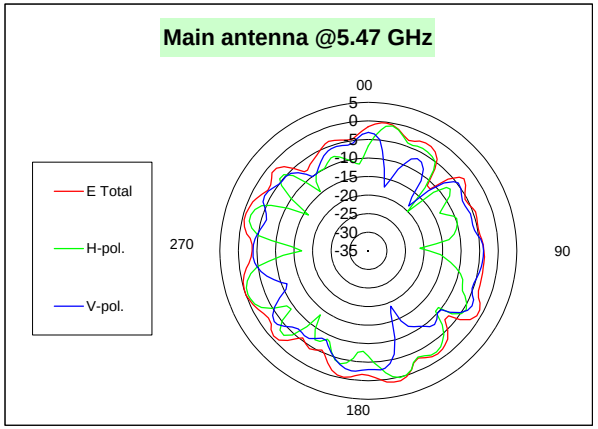


	Total	H-pol	V pol
Peak Gain	1.35	0.38	-0.31
Average Gain	-3.04	-5.32	-5.55

Note: The outer circle approximately represents the 5 dBi gain circle.
Each circle with 5 dBi difference (Max=5 dBi and Min=-35 dBi)

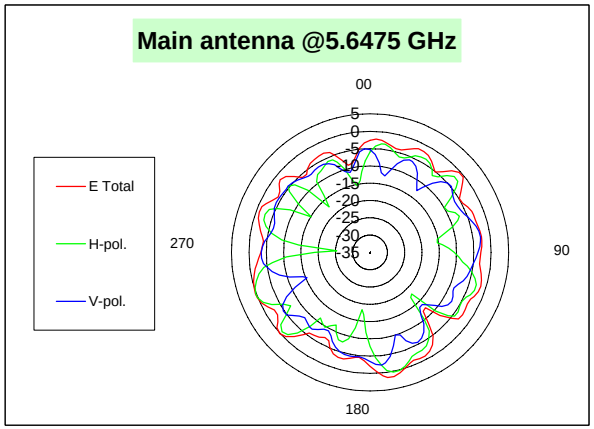
HyperLAN (5.470 GHz - 5.825 GHz) Antenna Radiation Patterns

Main antenna @5.47 GHz



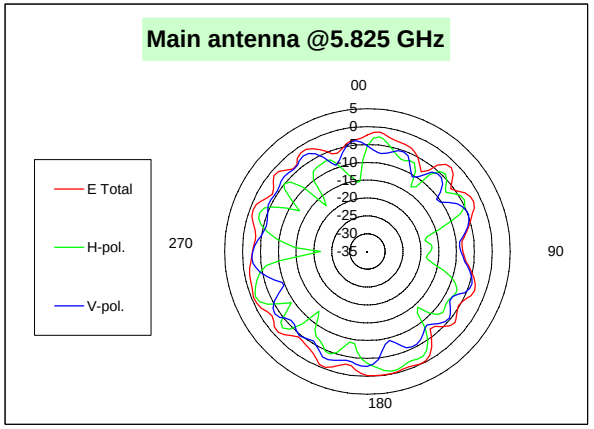
	Total	H-pol	V pol
Peak Gain	0.73	0.69	0.70
Average Gain	-2.91	-5.09	-4.51

Main antenna @5.6475 GHz



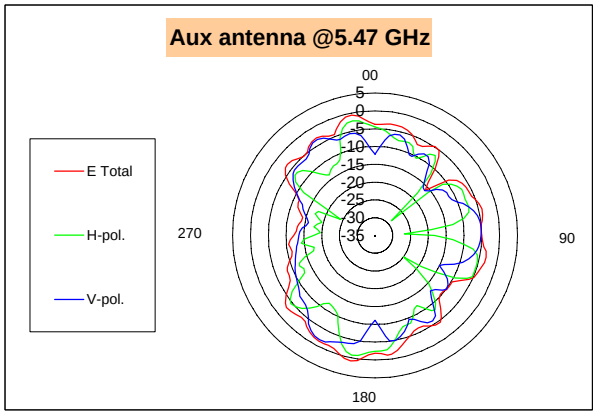
	Total	H-pol	V pol
Peak Gain	1.66	1.30	1.43
Average Gain	-2.82	-4.95	-4.38

Main antenna @5.825 GHz



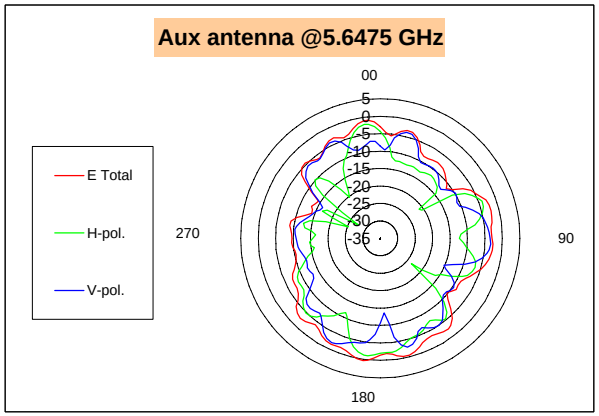
	Total	H-pol	V pol
Peak Gain	1.41	0.84	0.20
Average Gain	-2.84	-5.08	-4.92

Aux antenna @5.47 GHz



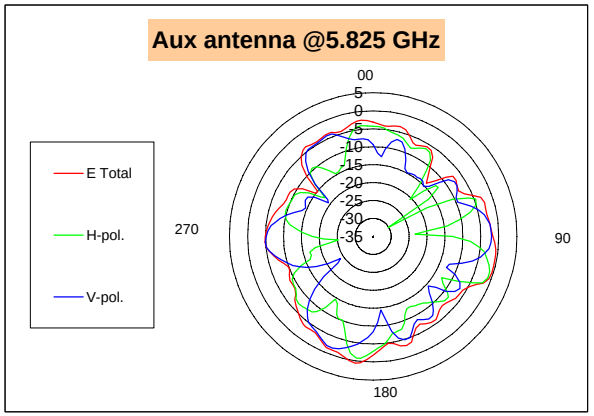
	Total	H-pol	V pol
Peak Gain	1.45	0.67	-0.45
Average Gain	-2.83	-5.40	-5.23

Aux antenna @5.6475 GHz



	Total	H-pol	V pol
Peak Gain	0.40	-0.38	0.36
Average Gain	-3.30	-5.66	-5.16

Aux antenna @5.825 GHz



	Total	H-pol	V pol
Peak Gain	0.63	-0.93	0.98
Average Gain	-3.42	-6.23	-5.65

Note: The outer circle approximately represents the 5 dBi gain circle.
Each circle with 5 dBi difference (Max=5 dBi and Min=-35 dBi)