

DK1 Antenna Regulatory Information

Description : **Triple-band Antenna(Main+Aux)**

Wistron Corporation Main Antenna P/N : 25.90235.001
Main base Cable P/N : 25.90241.001
AUX Antenna P/N: 25.90234.001
AUX base Cable P/N: 25.90240.001

Wistron NeWeb Corporation

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Provided by Wistron NeWeb Corp.	Reviewed by Wistron NeWeb Corp.
<i>Yuan Li</i>	<i>Weili Cheng</i>

Antenna Specifications

Antenna Type (Material, Technology)	Technology => PIFA, Material => Metal sheet (For both main and aux antenna)
Antenna Model Number	DK1 / EBU-A / 25.90235.001/25.90241.001 25.90234.001/25.90240.001
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: 2.6dBi , Aux antenna: 0.74dBi
Peak Gain (802.11a / 5GHz Band) (dBi)	Main antenna: 0.34dBi , Aux antenna: 0.01dBi
Radio Connector Type	IPEX MHF 37 type connector
Mid-Line Connector Type (If Applicable)	SSMCX 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)	425	380	805	675	380	1055
Loss (Including Connectors) (dB) (2.4GHz / 5GHz)	NA	NA	2.34/3.23	NA	NA	2.88/4.15
Description (Color, Diameter, Manufacturer)	Color: white Diameter: Φ1.37mm Manufacturer: Nissei, Hitachi, Junkosha, GBE, Kurabe ,Axon or equivalent cable			Color: black Diameter: Φ1.37mm Manufacturer: Nissei, Hitachi, Junkosha, GBE, Kurabe ,Axon or equivalent cable		

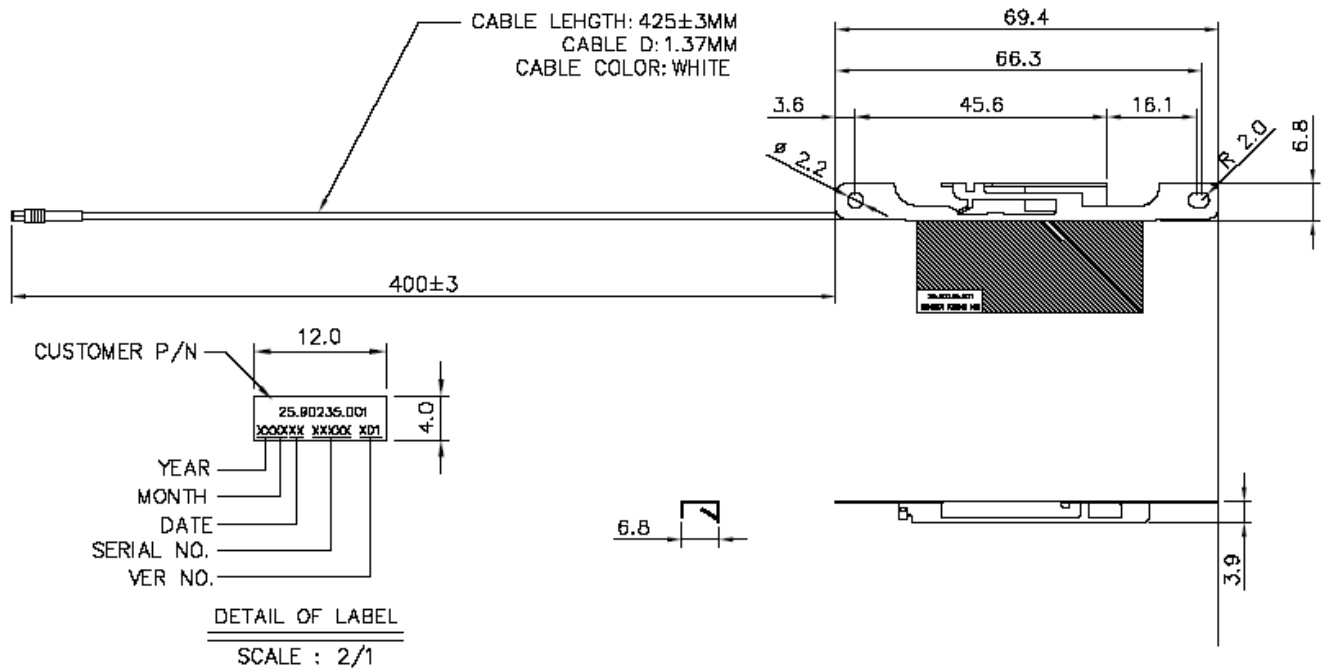
Note: For single cable assembly (no mid-line connector), use the 'Total' column for each cable length and list N/A in the 'LCD' and 'Base' fields. Cable Loss should be reported for the total cable assembly (for both Main and Aux antennas)

- **Peak Gain**

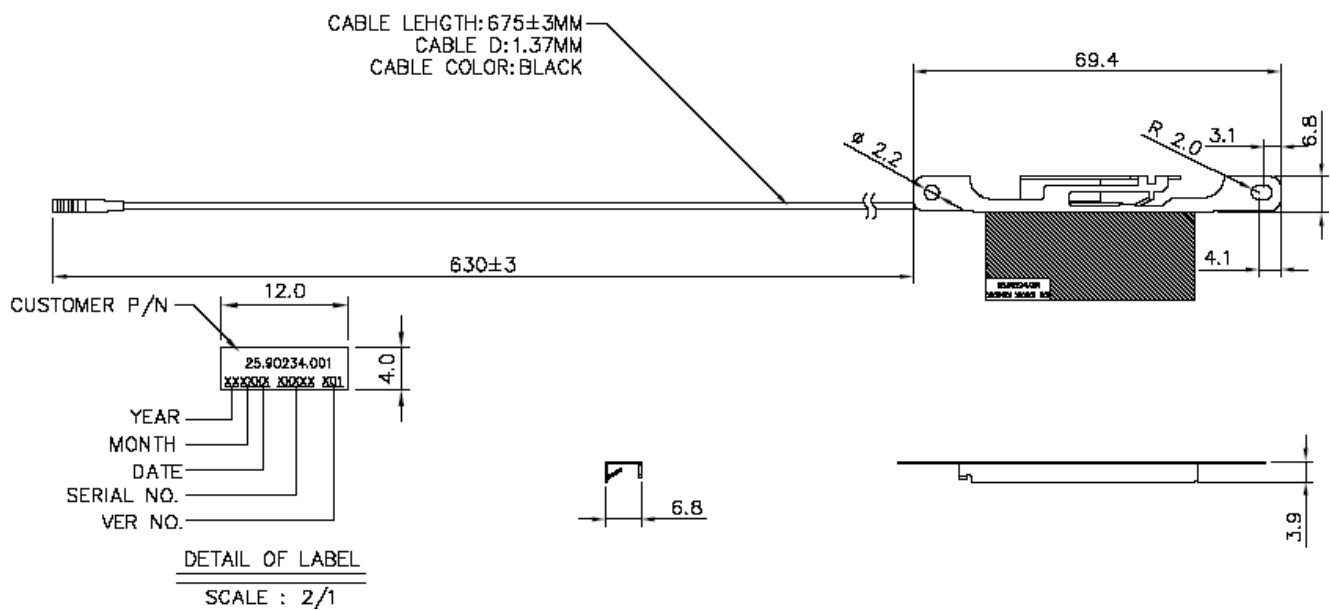
Frequency	Main antenna Max value (dBi)			Aux antenna Max value (dBi)			Pass/ NG
	H-pol	V pol	Max. of either pol.	H-pol	V pol	Max. of either pol.	
2412(MHz)	2.47	-1.06	2.47	0.74	-1.12	0.74	PASS
2437(MHz)	1.24	-0.82	1.24	0.10	-2.77	0.10	PASS
2462(MHz)	2.60	-0.47	2.60	0.32	-1.94	0.32	PASS
4900(MHz)	0.34	-0.16	0.34	-1.94	-1.40	-1.40	PASS
5125(MHz)	-0.75	-0.83	-0.75	-0.87	-0.91	-0.87	PASS
5350(MHz)	-0.27	-1.55	-0.27	-0.80	-1.38	-0.80	PASS
5470(MHz)	-0.05	-2.19	-0.05	-0.66	-0.32	-0.32	PASS
5672.5(MHz)	-1.63	-1.69	-1.63	-0.01	-0.11	-0.01	PASS
5875(MHz)	-1.17	-1.54	-1.17	-1.02	-0.94	-0.94	PASS

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

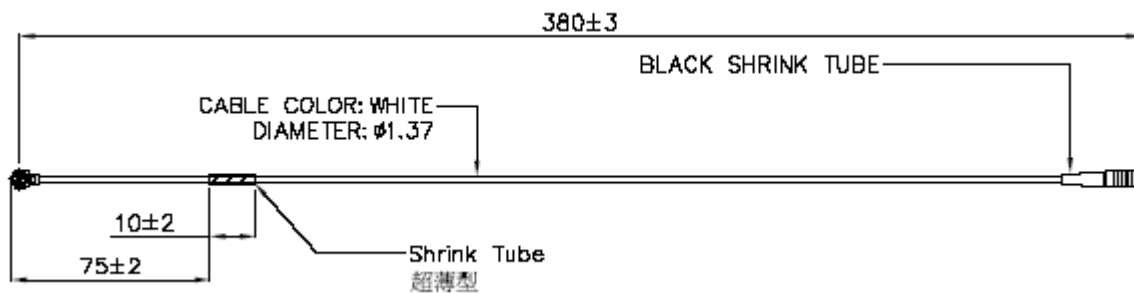
Main Antenna



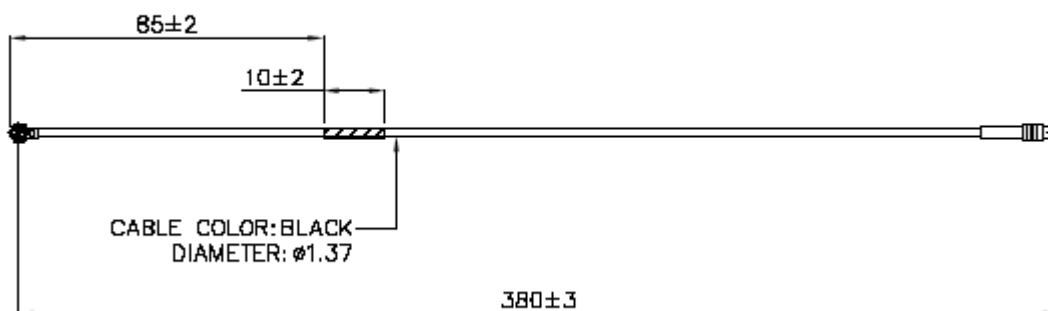
AUX Antenna



Main Base cable



AUX Base Cable



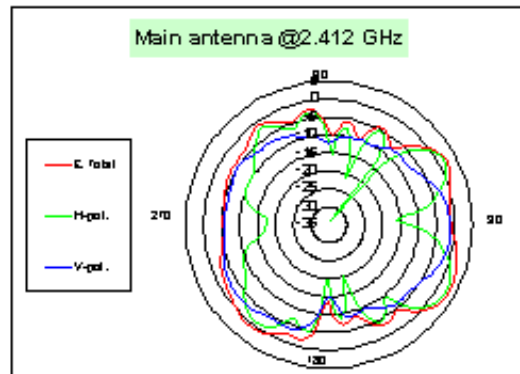
- Pictures of Antennas

Main Antenna	Aux Antenna
	

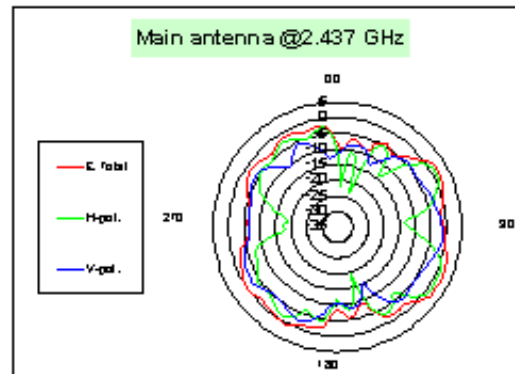


● Antenna Pattern

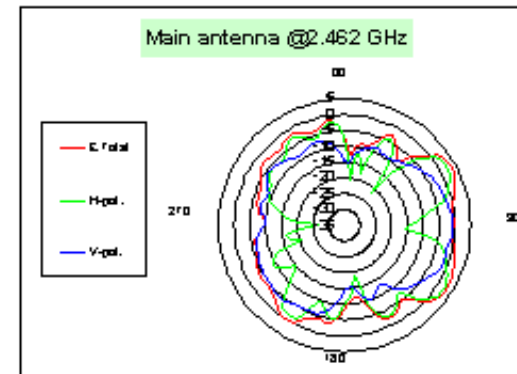
2G 4 ISM (2.400 GHz - 2.4835 GHz) Antenna Radiation Patterns



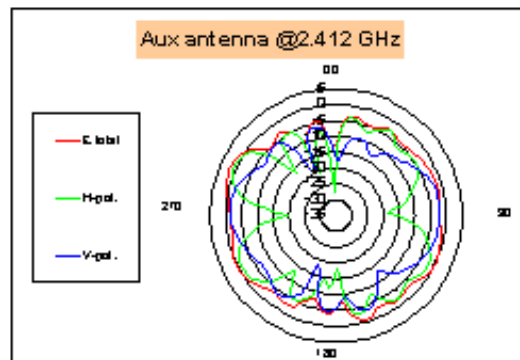
	Total	H-pol	V-pol
Peak Gain	3.33	2.47	-1.06
Average Gain	-2.33	-5.60	-6.80



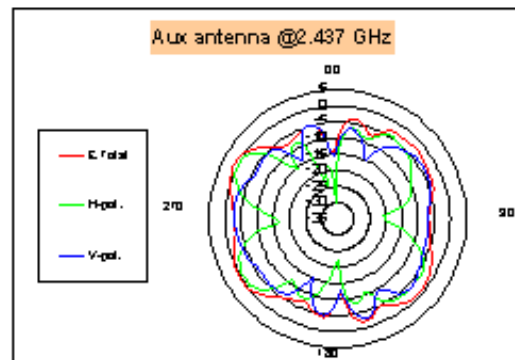
	Total	H-pol	V-pol
Peak Gain	2.51	1.24	-0.82
Average Gain	-2.14	-5.38	-6.53



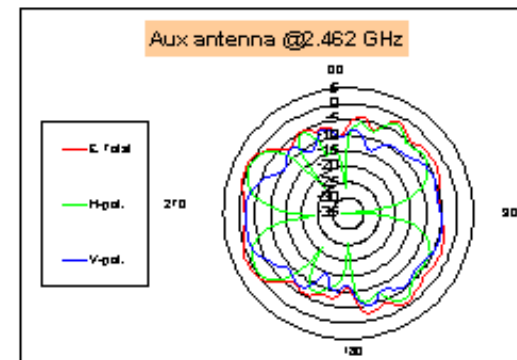
	Total	H-pol	V-pol
Peak Gain	3.46	2.60	-0.47
Average Gain	-2.67	-6.71	-6.44



	Total	H-pol	V-pol
Peak Gain	1.86	0.74	-1.12
Average Gain	-2.38	-5.87	-6.00



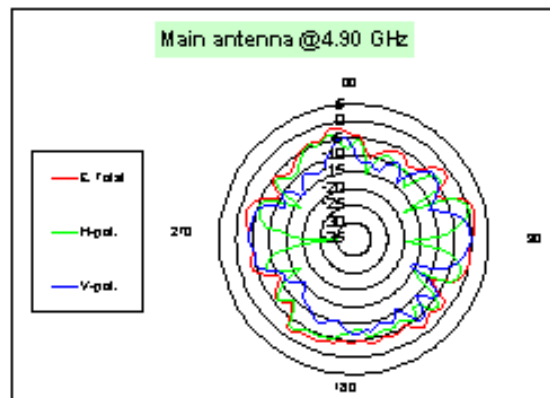
	Total	H-pol	V-pol
Peak Gain	1.13	0.10	-2.77
Average Gain	-3.34	-7.31	-5.84



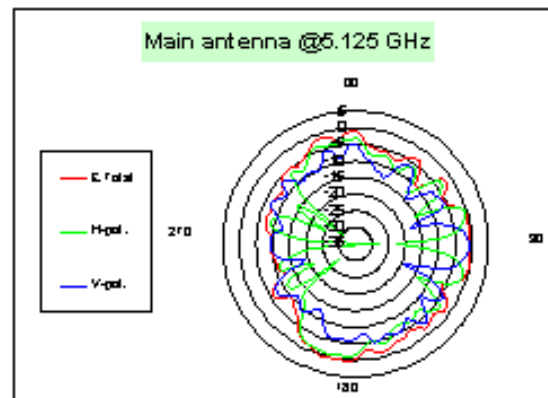
	Total	H-pol	V-pol
Peak Gain	1.05	0.32	-1.94
Average Gain	-3.42	-6.87	-5.93

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

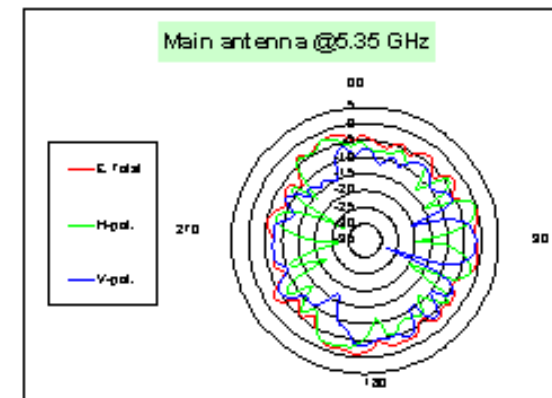
U-NII Band (4.90 GHz - 5.350 GHz) Antenna Radiation Patterns



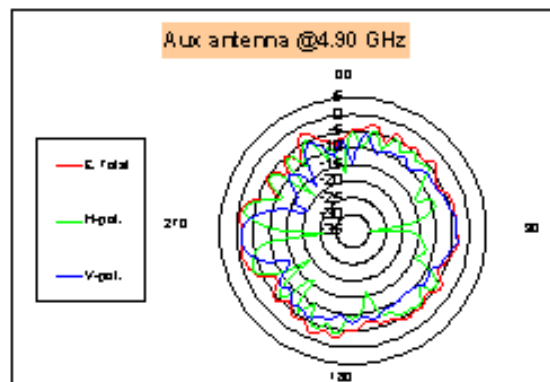
	Total	H-pol	V-pol
Peak Gain	1.72	0.34	-0.16
Average Gain	-3.85	-6.68	-7.66



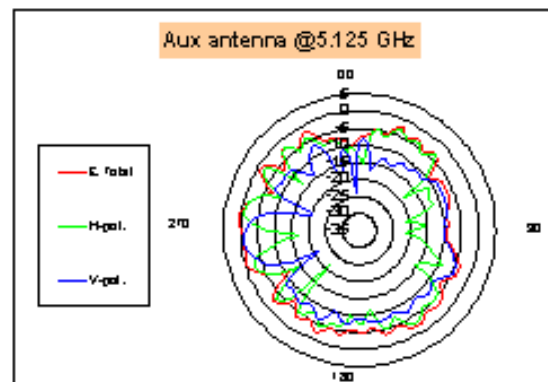
	Total	H-pol	V-pol
Peak Gain	0.51	-0.75	-0.83
Average Gain	-3.87	-5.75	-7.81



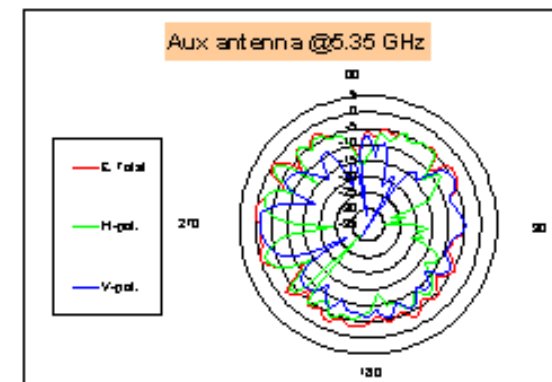
	Total	H-pol	V-pol
Peak Gain	-0.22	-0.27	-1.55
Average Gain	-3.99	-6.83	-7.80



	Total	H-pol	V-pol
Peak Gain	-0.70	-1.54	-1.40
Average Gain	-4.42	-7.96	-6.90



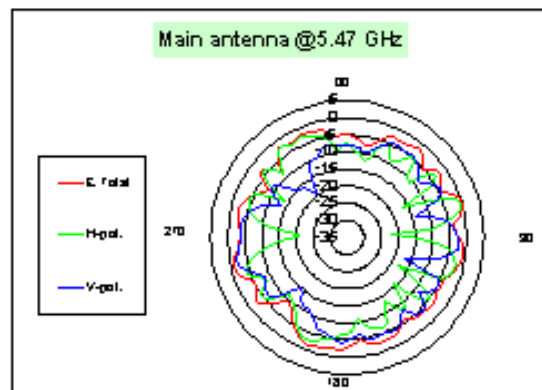
	Total	H-pol	V-pol
Peak Gain	0.63	-0.87	-0.91
Average Gain	-4.36	-5.87	-5.51



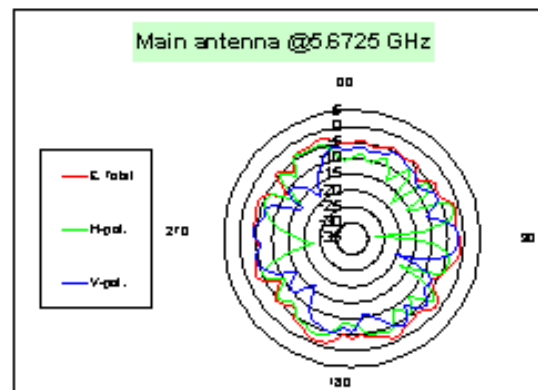
	Total	H-pol	V-pol
Peak Gain	0.26	-0.80	-1.38
Average Gain	-4.60	-6.98	-3.62

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

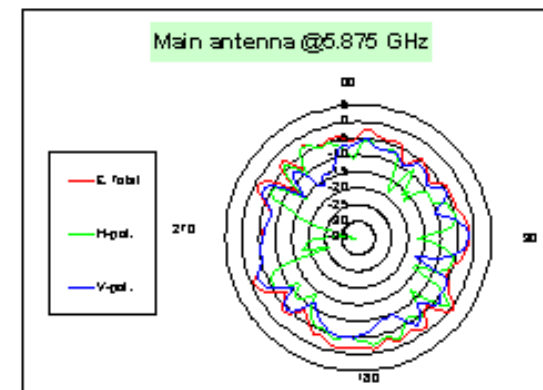
HyperLAN (5.470 GHz - 5.875 GHz) Antenna Radiation Patterns



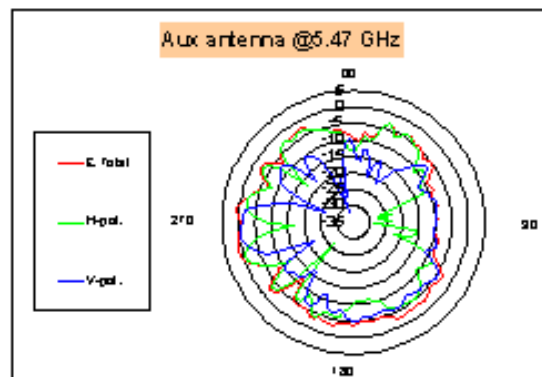
	Total	H-pol	V-pol
Peak Gain	0.12	-0.05	-2.19
Average Gain	-3.34	-6.77	-6.86



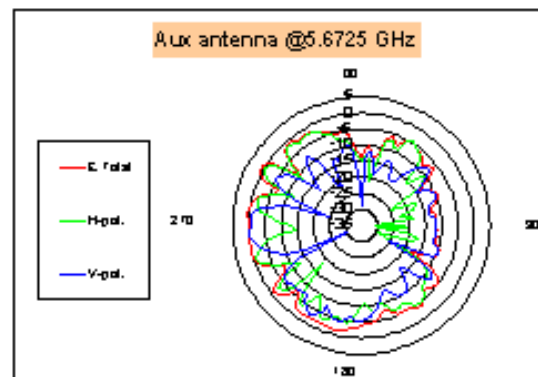
	Total	H-pol	V-pol
Peak Gain	-1.11	-1.63	-1.63
Average Gain	-3.89	-5.89	-7.36



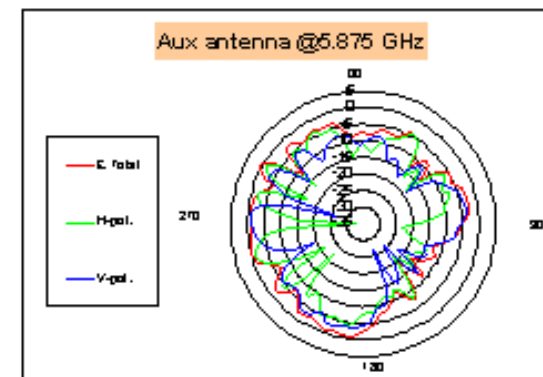
	Total	H-pol	V-pol
Peak Gain	0.58	-1.17	-1.54
Average Gain	-3.84	-7.77	-6.75



	Total	H-pol	V-pol
Peak Gain	0.80	-0.66	-0.32
Average Gain	-4.54	-6.83	-6.02



	Total	H-pol	V-pol
Peak Gain	1.11	-0.01	-0.11
Average Gain	-4.84	-5.96	-9.15



	Total	H-pol	V-pol
Peak Gain	0.69	-1.02	-0.94
Average Gain	-4.81	-6.53	-6.96

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