



Wistron NeWeb Corporation

DATA SHEET

Customer Name	Wistron Corporation		
Date	10/23/2002		
Customer P/N			
WNC P/N	81.CA813.002 for AUX antenna		
Description	Antenna for Sapphire system		
Version	SD	Doc. Version	0

wistron

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Quick-Sliver Triple- BAND ANTENNA

Prepare by David Ws Tau
/Wistron NeWeb Corp.

Purpose :

For Sapphire platform side mount antenna ,the antenna including triple –band 802.11b,a &h used.

I. Antenna material SPEC.

U structure

A. Main antenna

1. Application: LCD Left side
2. Cable length: 365mm
(IPEX cable with Φ 1.13mm)
3. PIFA by metal

B. AUX antenna

1. Application: LCD Right side
2. Cable length: 480mm
(IPEX cable with Φ 1.13mm)
3. PIFA antenna by metal

C. Main antenna BOM

Parts Number	Description	Quantity
3A.CA845.111	ANTENNA iron sheet, LEFT, CA8-I	1
25.90066.001	ANTENNA IPEX cable 365 MM CA8-I	1
3B.CA880.111	EVA BUFFER	1
	Conductive Cloth	1

D.Aux. antenna BOM

Parts Number	Description	Quantity
3A.CA845.112	ANTENNA iron sheet, RIGHT, CA8-I	1
25.90065.001	ANTENNA IPEX cable 480 MM CA8-I	1
3B.CA880.111	EVA BUFFER	1

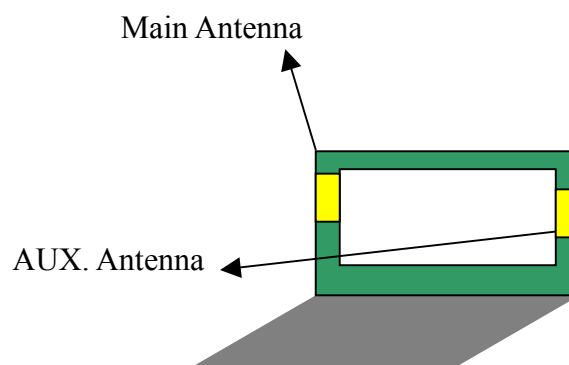


Fig.1

II. Performance

A.VSWR:

Criteria: VSWR<2 for 2.4GHz~2.5GHz&5.15~5.35GHz&5.47~5.825GHz

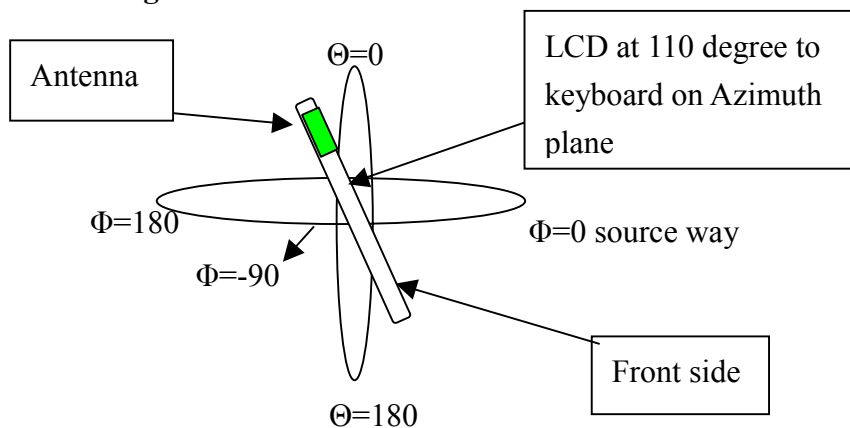
	802.11b			802.11a			Pass or Fail
	2.4GHz	2.45GHz	2.497GHz	5.15GHz	5.25GHz	5.35GHz	
Main	1.83	1.64	1.41	1.7	1.85	1.61	Pass

	Hyper Lan			Pass or Fail
	5.47GHz	5.6475GHz	5.825GHz	
Main	1.31	1.21	1.72	Pass

	802.11b			802.11a			Pass or Fail
	2.4GHz	2.45GHz	2.497GHz	5.15GHz	5.25GHz	5.35GHz	
AUX.	1.48	1.18	1.45	1.34	1.24	1.25	Pass

	Hyper Lan			Pass or Fail
	5.47GHz	5.6475GHz	5.825GHz	
AUX	1.1	1.4	1.71	Pass

B. Radiation Measure figure



C. PEAK GAIN AND AVERAGE GAIN (for 802.11b,a& H).

Criteria : Peak Gain < 6 dBi for 2.4~2.5,5.15~5.35&5.47~5.825GHz

Average Receive(diversity) Gain > 2 dBi for 2.4~2.5,5.15~5.35&5.47~5.825GHz

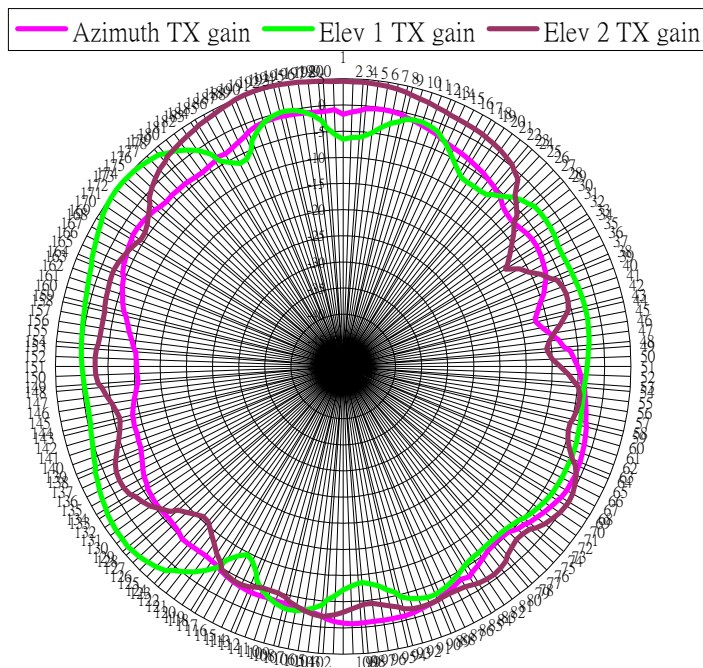
Average Transmit(main antenna) Gain > 0 dBi for 2.4~2.5,5.15~5.35&5.47~5.825GHz

		Peak gain			Average gain			Peak gain			Average gain			Peak gain			Average gain		
		2.4GHz	2.45GHz	2.5GHz	2.4GHz	2.45GHz	2.5GHz	5.15GHz	5.25GHz	5.35GHz	5.15GHz	5.25GHz	5.35GHz	5.47GHz	5.75GHz	5.825GHz	5.47GHz	5.647GHz	5.825GHz
Main	plane ($\Theta = 90^\circ, \Phi = 0 \sim 360^\circ$)	0.20	-0.32	0.76	-3.94	-3.62	-3.12	2.25	2.42	2.77	-1.45	-1.43	-1.06	2.09	2.91	1.96	-1.80	-1.35	-2.73
	Elevation plane 1 ($\Phi = 0^\circ, \Theta = 0 \sim 360^\circ$)	4.90	4.97	4.96	-0.79	-0.87	-0.41	0.71	0.83	1.52	-1.86	-1.89	-1.37	2.12	2.81	1.47	-1.09	-0.92	-2.16
	Elevation plane 2 ($\Phi = 90^\circ, \Theta = 0 \sim 360^\circ$)	5.03	5.35	4.61	-0.90	-0.61	-0.78	1.23	1.38	2.11	-2.07	-2.00	-1.47	1.66	2.45	0.89	-1.78	-1.73	-2.92
AUX.	plane ($\Theta = 90^\circ, \Phi = 0 \sim 360^\circ$)	-1.61	-1.84	-0.58	-3.82	-3.61	-3.76	1.84	1.72	2.00	-2.00	-1.89	-1.51	2.80	2.29	1.50	-1.16	-1.50	-2.27
	Elevation plane 1 ($\Phi = 0^\circ, \Theta = 0 \sim 360^\circ$)	3.82	4.12	4.04	-2.97	-2.34	-1.62	1.05	0.87	1.22	-3.22	-2.75	-2.24	1.88	1.25	1.52	-1.84	-2.82	-2.37
	Elevation plane 2 ($\Phi = 90^\circ, \Theta = 0 \sim 360^\circ$)	3.75	3.86	2.75	-2.05	-1.63	-1.99	-0.86	-0.72	1.55	-4.28	-3.70	-2.44	0.77	1.01	2.36	-2.95	-2.66	-1.35

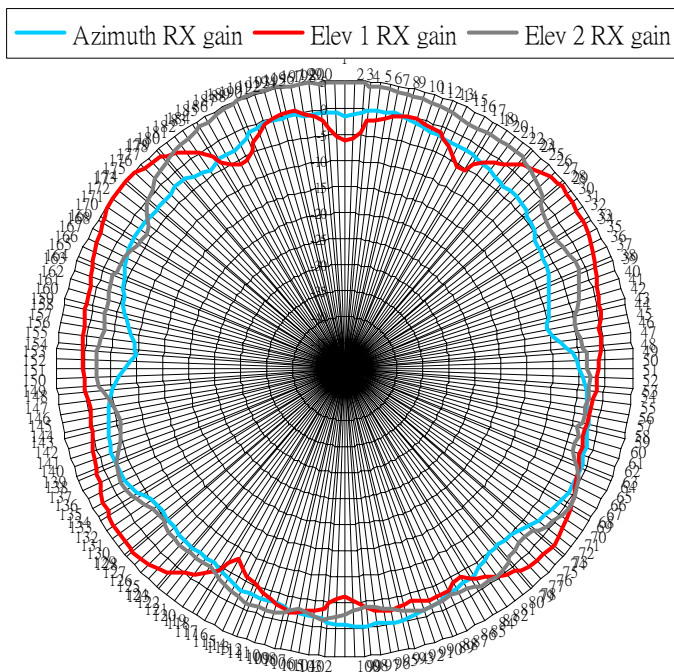
III. Radiation Pattern

1. Rx(diversity) and TX(main ant.) gain Pattern

TX(Main) Gain on Tri-orthogonal Plane-@2.45GHz

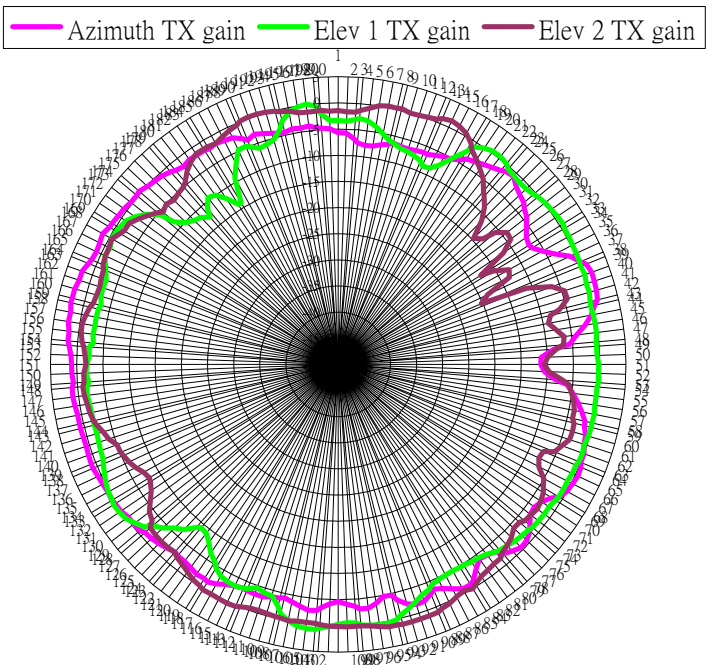


RX Gain on Azimuth Plane-@2.45GHz

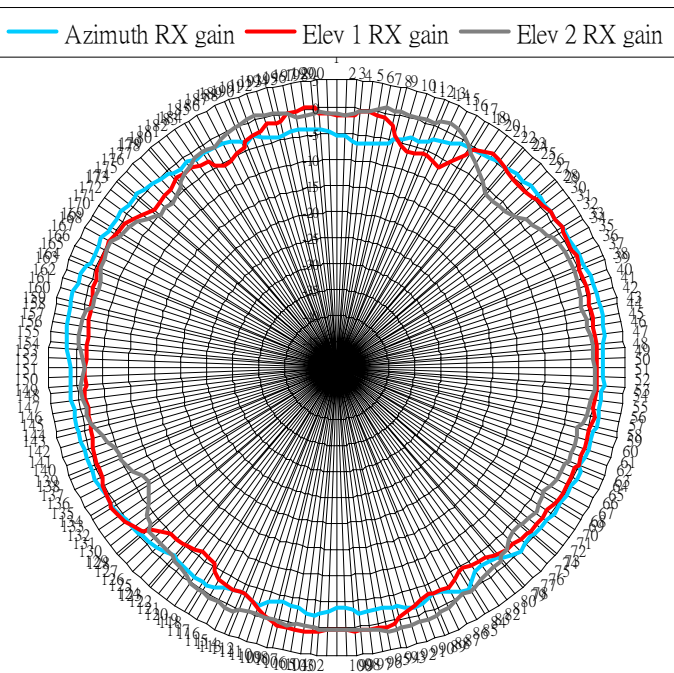


Date :2002/10/25

TX(main) Gain on Tri-orthogonal Plane-@5.25GHz

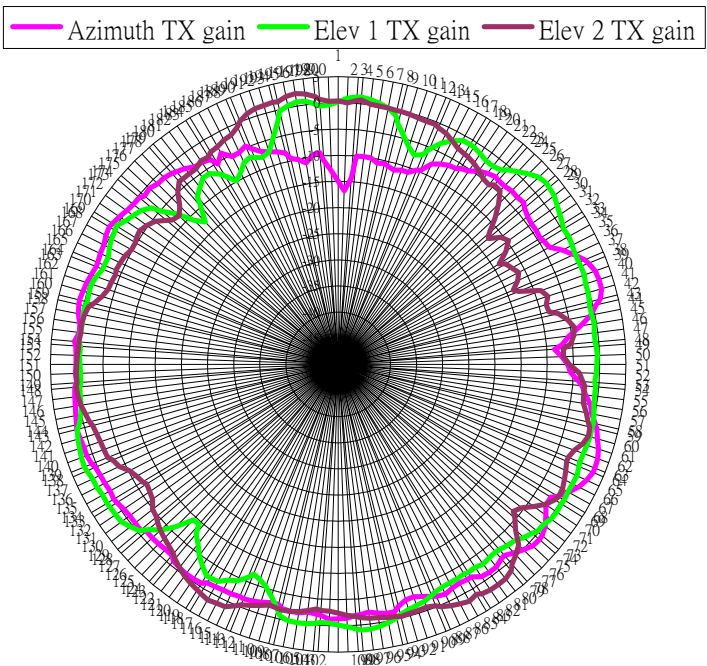


RX Gain on Azimuth Plane-@5.25 GHz

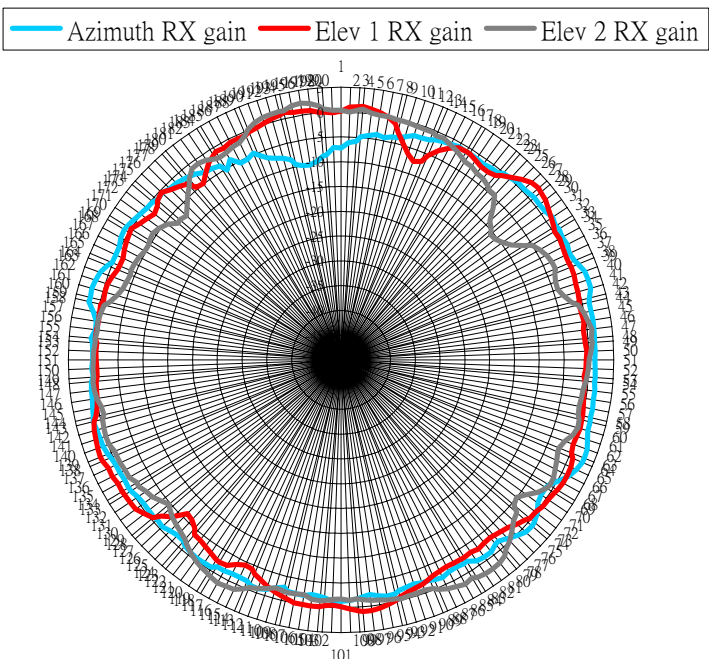


Date :2002/10/25

TX(main) Gain on Tri-orthogonal Plane-@5.6475 GHz



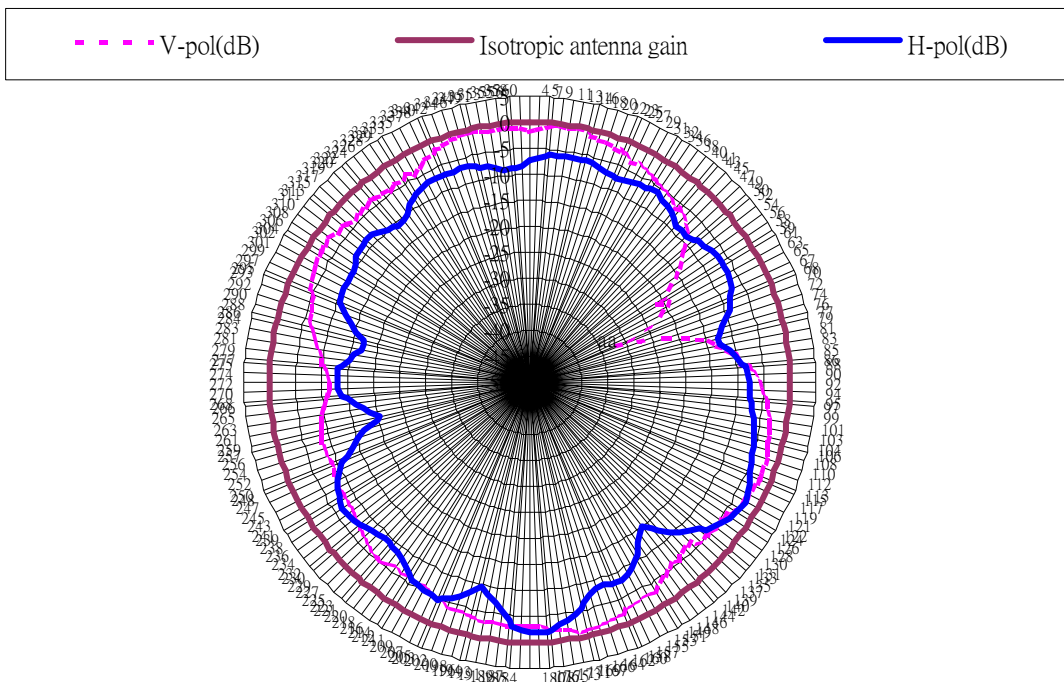
RX Gain on Azimuth Plane-@5.6475 GHz



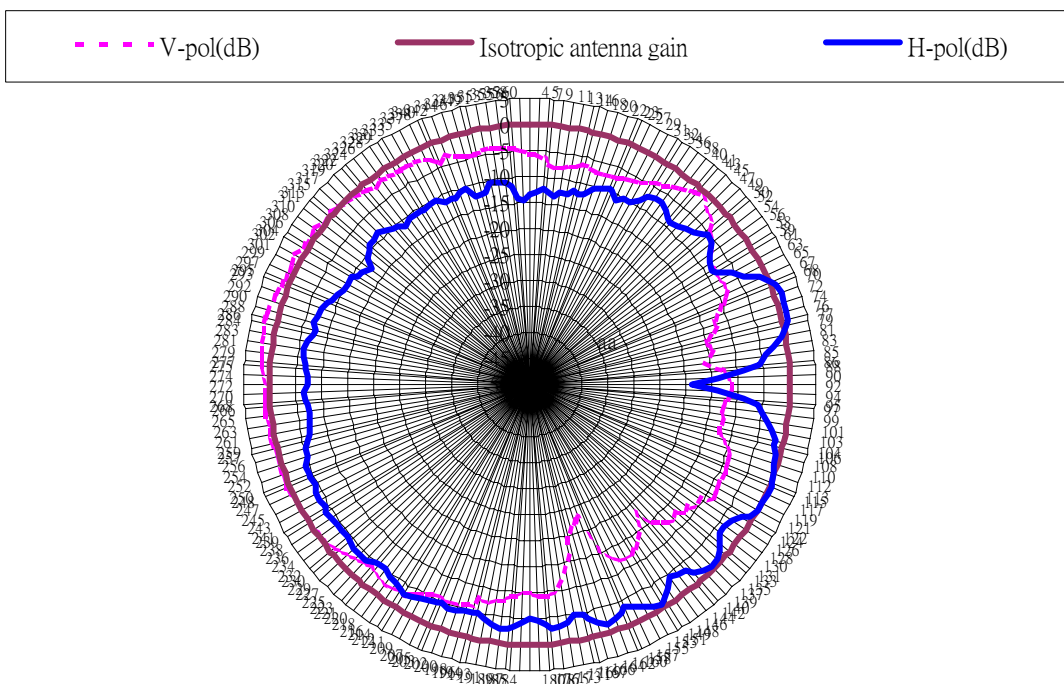
2. Main Antenna Pattern

Date :2002/10/25

Main antenna on Azimuth plane -@2.45GHz

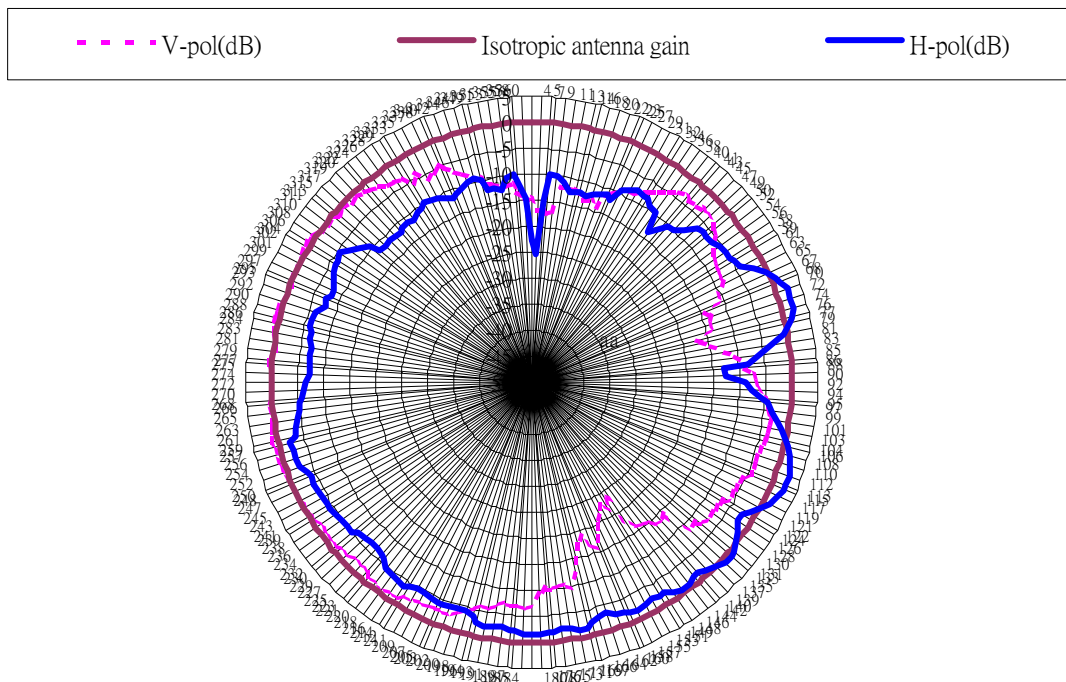


Main antenna on Azimuth Plane-@5.25GHz



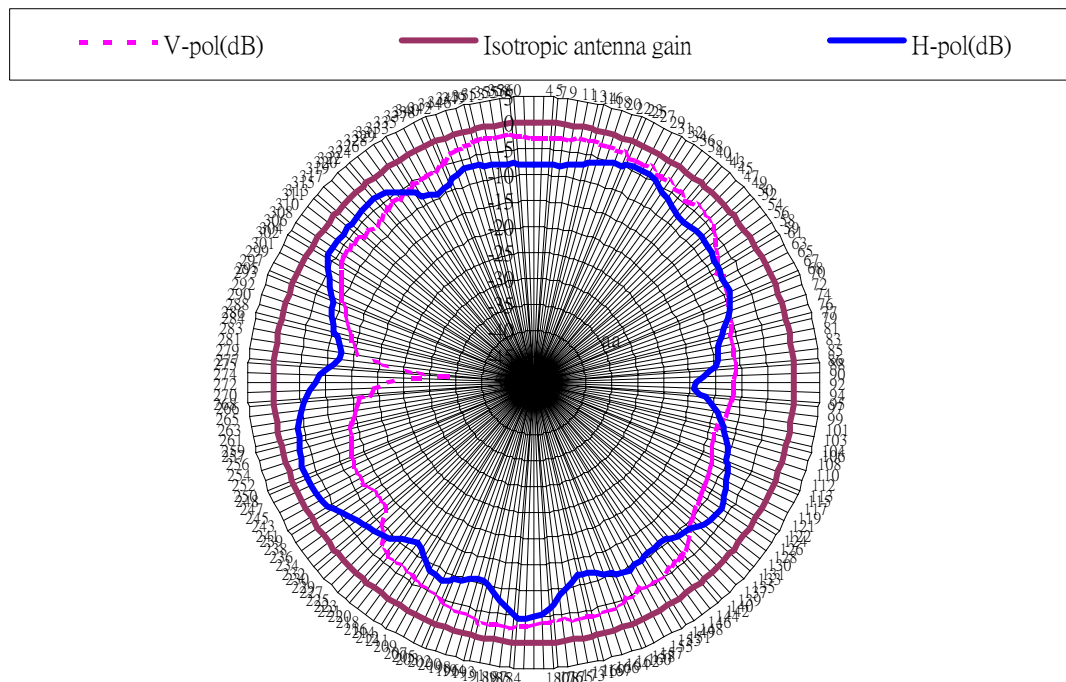
Date :2002/10/25

Main antenna on Azimuth Plane-@5.6475GHz

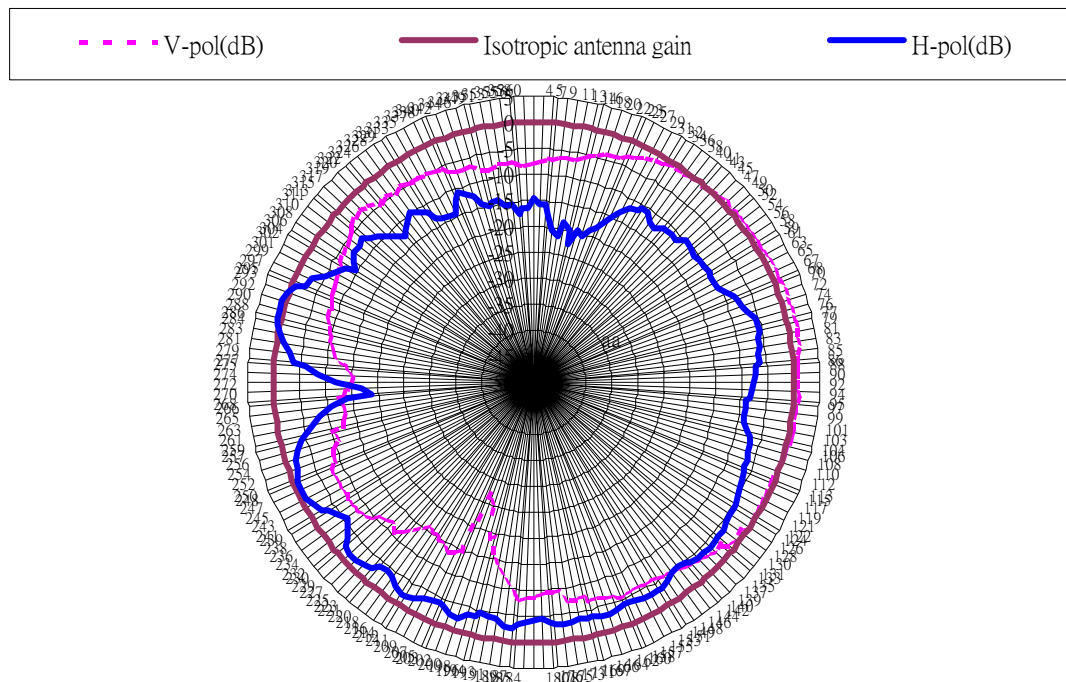


3. AUX. Antenna Pattern

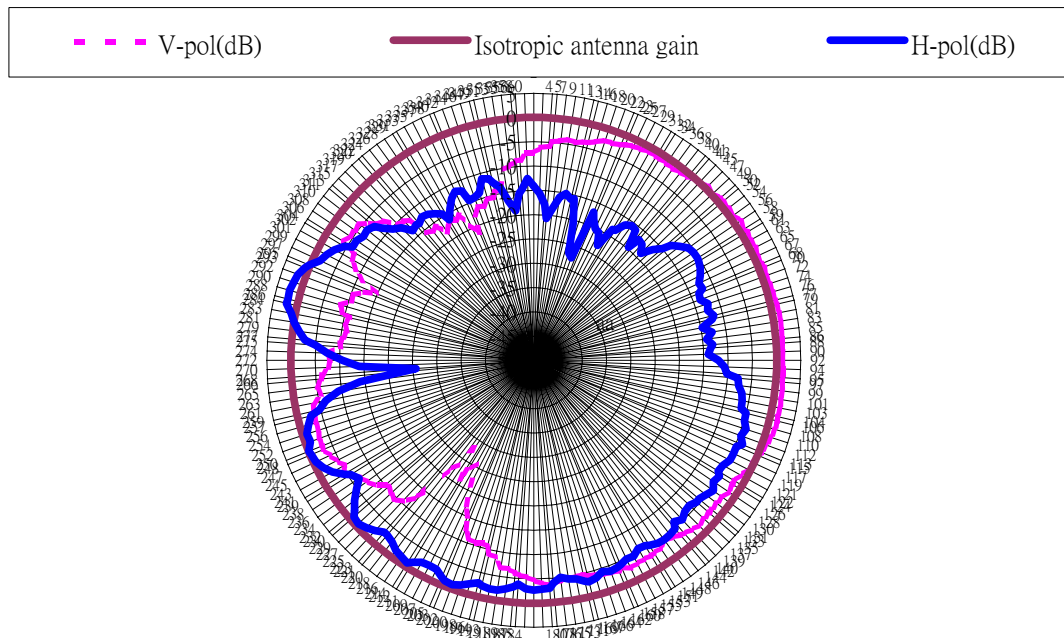
AUX. Antenna on Azimuth plane -@2.45GHz



AUX. Antenna on Azimuth plane -@5.25GHz

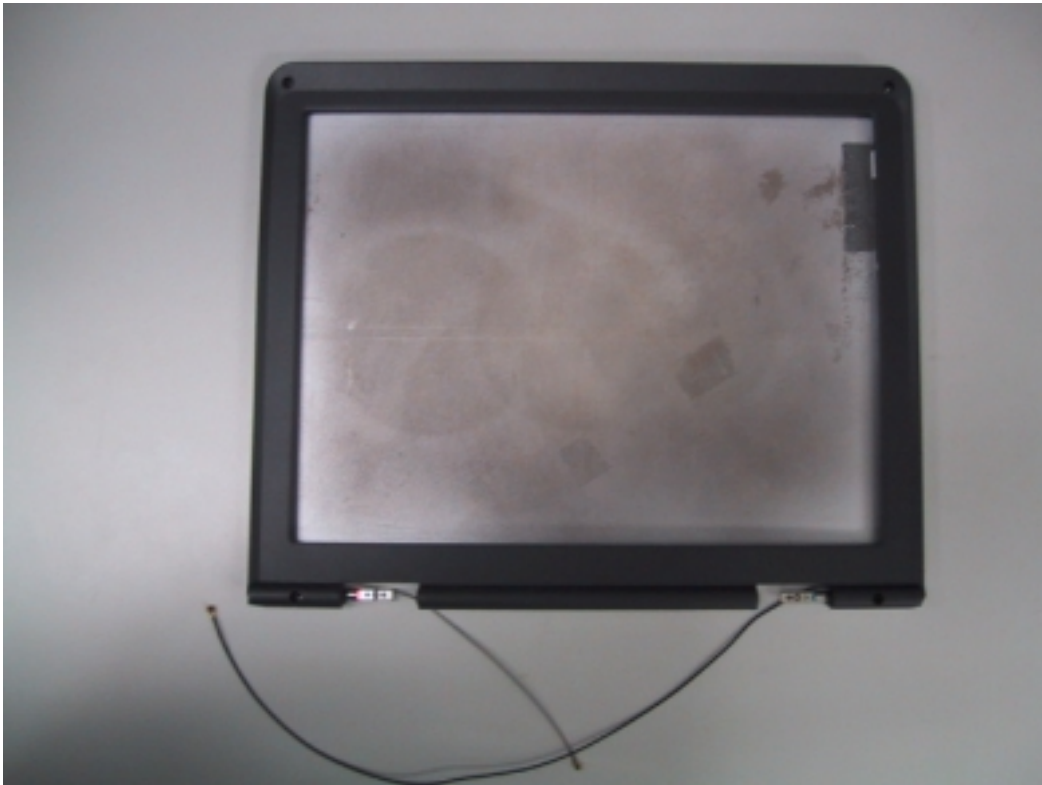


AUX. Antenna on Azimuth plane -@5.6475GHz

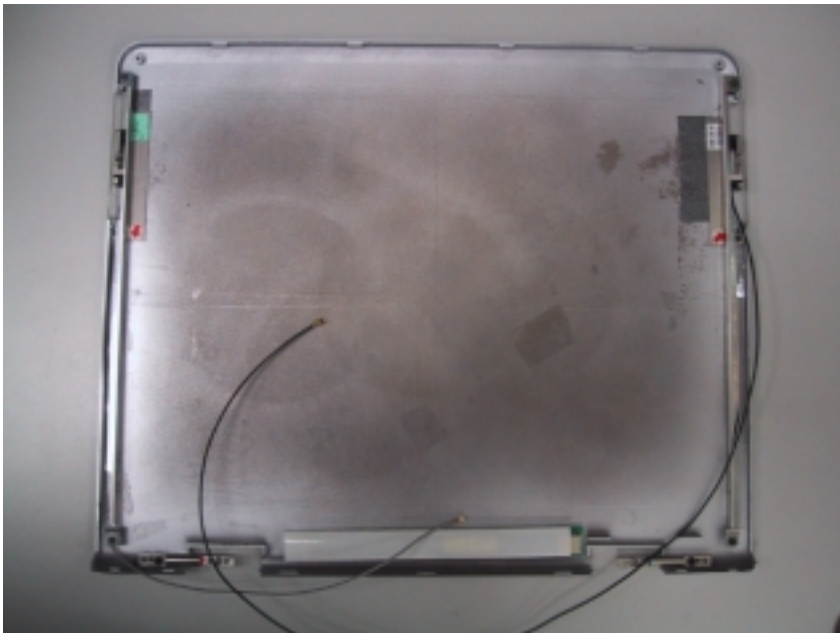


IV.Photo & antenna drawing

Current antenna circumstance as picture



Antenna position



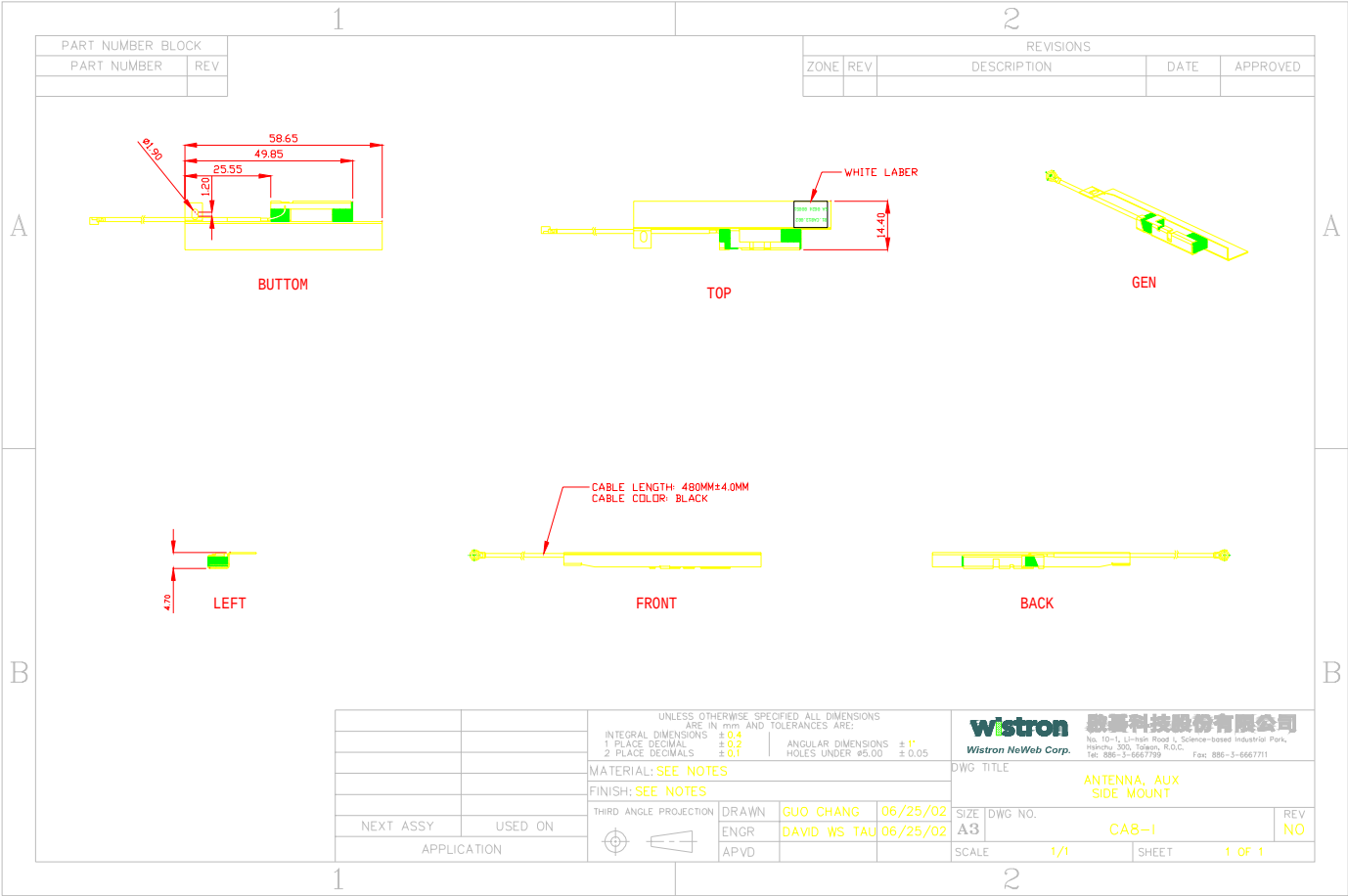
Main antenna side view



Aux. Antenna side view



Aux antenna drawing



Cable data sheet

as follow drawing:

成品檢查承認表

2002年 10 月 21 日

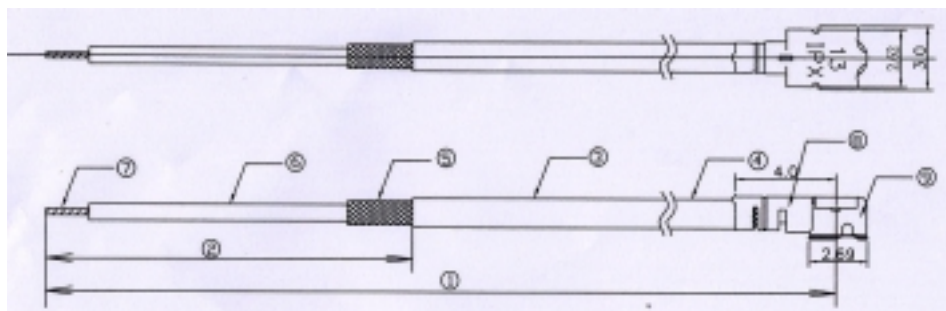
客戶:	Wistron NeWeb Corp.	品名	Antenna cable for blue tooth	檢查日期:	2002.10.21	承認	確認	檢查
數量:	3 PCS	規格	480 mm	顏色	BLACK			

樣品:

1:

2:

3:



WN-S-1.13B-480mm-(2-4-1)

No	檢查項目	公差	1	2	3	4	5	判定
1	電纜線長度	480± 4 mm	480	480	480			OK
2	剝皮長度	2-4-1mm ±0.1	1.9-4.1-1	2-3.9-1.1	2-4-1			OK
3	電纜線外觀	無破損、無異物附著...等現象	OK	OK	OK			OK
4	被覆顏色	無顏色脫落、無顏色錯誤...等現象	OK	OK	OK			OK
5	編織網	網子無切斷偏出、錫囊起...等現象	OK	OK	OK			OK
6	鐵氟龍(透明膠管)	無傷痕、無變薄、無異物覆蓋...等現象	OK	OK	OK			OK
7	中心導體	無斷線、無錫尖、無線散亂、無損傷...等現象	OK	OK	OK			OK
8	外觀	無破損、變型、脫落...等	OK	OK	OK			OK
9	連接器內中心導體	是否按規定定位於連接器內	OK	OK	OK			OK
10	嵌入、拔取母座	嵌入拔取母座是否正常	OK	OK	OK			OK
11	與電纜線的拉力測試	↑2N	↑2N	↑2N	↑2N			OK
12	與母座嵌合的拉力	↑2N	↑2N	↑2N	↑2N			OK
13	導通	使用測試器	OK	OK	OK			OK
14	絕緣	使用測試器	OK	OK	OK			OK
15	瞬斷	使用測試器	OK	OK	OK			OK
16	耐壓	使用測試器	OK	OK	OK			OK
17	包裝	包裝方法和標籤內容填定是否正確	OK	OK	OK			OK
18	數量檢查	數量是否正確	OK	OK	OK			OK

※1. 不良品發現時, 全數再檢查.

※2. IPX 連接器的使用溫度範圍是: -40℃至90℃

※3. 極細同軸電纜線的耐溫度為-200℃~250℃

注意:	最終判斷
1.此記錄需保存3年.	
2. 請遵照指示用適當的量度治具及工具去量度.	
3. 檢查方法請遵照出貨檢查規格.	ok NG

東莞唯盛電子廠

WELL SHINE ELECTRONICS CO., LTD.

成品檢查承認表

2002年 10 月 21 日

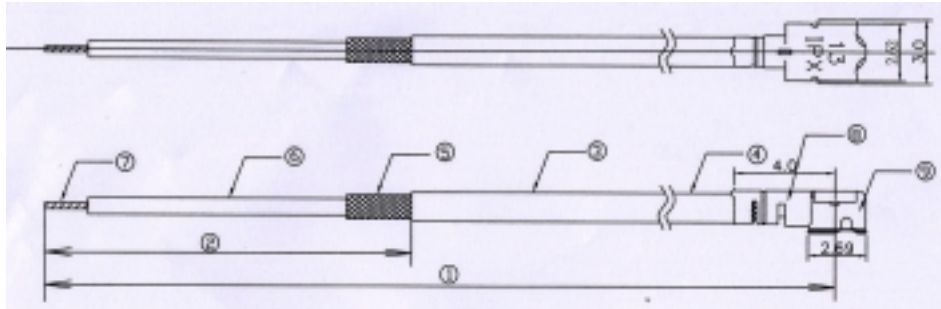
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數量:	3 PCS	規格	480 mm	顏色	BLACK			

樣品:

1:

2:

3:



WN-S-1.13B-480mm-(2-4-1)

No	檢查項目		公差	1	2	3	4	5	判定
1	寸法檢查	電纜線長度	480±4 mm	480	480	480			OK
2		剝皮長度	2-4-1m ±0.1	2-4-1	1.9-4.1-1	2-4-1.1			OK
3	外觀檢查	電纜線外觀	無破損、無異物附著...等現象	OK	OK	OK			OK
4		被覆顏色	無顏色脫落、無顏色錯誤...等現象	OK	OK	OK			OK
5		編織網	網子無切斷偏出、錫翼起...等現象	OK	OK	OK			OK
6		鐵氟龍(透明膠管)	無傷痕、無變薄、無異物覆蓋...等現象	OK	OK	OK			OK
7		中心導體	無斷線、無錫尖、無線散亂、無損傷...等現象	OK	OK	OK			OK
8	連接器	外觀	無破損、變型、脫落...等	OK	OK	OK			OK
9		連接器內中心導體	是否按規定定位於連接器內	OK	OK	OK			OK
10		嵌入、拔取母座	嵌入拔取母座是否正常	OK	OK	OK			OK
11		與電纜線的拉力測試	↑2N	↑2N	↑2N	↑2N			OK
12		與母座嵌合的拉力	↑2N	↑2N	↑2N	↑2N			OK
13	電氣檢查	導通	使用測試器	OK	OK	OK			OK
14		絕緣	使用測試器	OK	OK	OK			OK
15		瞬斷	使用測試器	OK	OK	OK			OK
16		耐壓	使用測試器	OK	OK	OK			OK
17	其它	包裝	包裝方法和標籤內容填定是否正確	OK	OK	OK			OK
18		數量檢查	數量是否正確	OK	OK	OK			OK

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						ok	NG