



Wistron NeWeb Corporation

Pebble Antenna Regulatory Information

Document Revision: 1

Customer Name	Wistron Corporation
Customer P/N	25.90077.001 / 25.90078.001
WNC P/N	81.CAB15.001 / 81.CAB15.002
Description	Triple-band antenna for Pebble

Provided By Wistron NeWeb Corp	Reviewed By Wistron NeWeb Corp
Sophia Lin	Weili Cheng

wistron

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No.10-1, Li-hsin Road I,
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電話：(03) 666-7799
傳真：(03) 666-7711

Release Date: 2003/3/20



Wistron NeWeb Corporation

1. Antenna Model Number

Model number: CAB-A

2. Manufacturing Information

Wistron NeWeb Corporation

No. 10-1, Li-hsin Road I, Science-base Industrial Park, Hsinchu 300, Taiwan, R.O.C.

3. Antenna Configuration

	Main Antenna	Aux Antenna
Position	Left-side	Right-side
Antenna Type	PIFA	PIFA
Material	1. Stamped metal 2. Junkosha cable and IPEX connector (Or Nissei cable and HRS connector) 3. Sponge 4. Tape	1. Stamped metal 2. Junkosha cable and IPEX connector (Or Nissei cable and HRS connector) 3. Sponge 4. Tape
Cable Length #1	1.13 (dia.) x 273 mm	1.13 (dia.) x 325 mm

#1: Cable length is measured from the center of connector to the end of cable.

4. Pictures of Antennas

Main Antenna	Aux Antenna
	

5. Antenna Dimensions (Mechanical drawings)

(See Next 2 Pages)

1

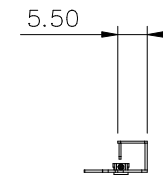
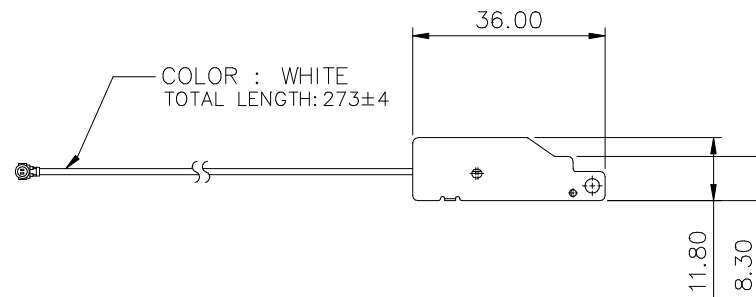
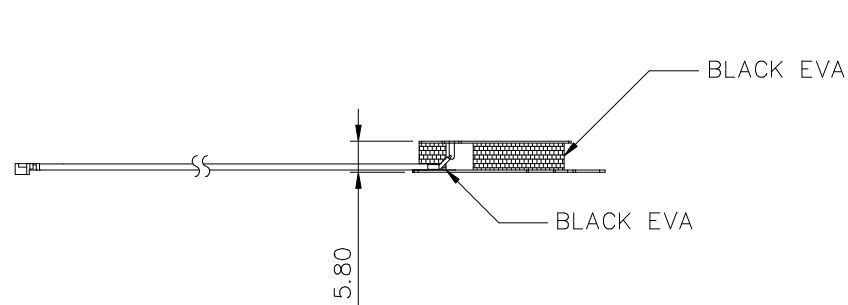
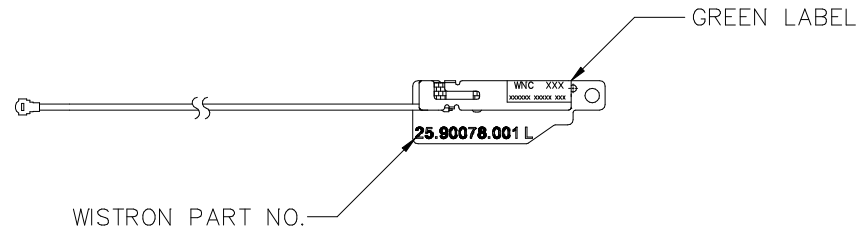
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PART NUMBER BLOCK

PART NUMBER REV

REVISIONS

ZONE REV DESCRIPTION DATE APPROVED



		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:				wistron 啟碁科技股份有限公司		
		INTEGRAL DIMENSIONS ±		ANGULAR DIMENSIONS ± 1°		No. 10-1, Li-hsin Road I, Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C.		
		1 PLACE DECIMAL ±		HOLES UNDER Ø5.00 ± 0.05		Tel: 886-3-6667799 Fax: 886-3-6667711		
		2 PLACE DECIMALS ± 0.3				DWG TITLE		
		MATERIAL: NA						
		FINISH: NA				OUTLINE, MAIN, CAB-A		
	CAB-A	THIRD ANGLE PROJECTION	DRAWN	ARSENE YU	03/20/03			
NEXT ASSY	USED ON		ENGR	ARSENE YU	03/20/03	A3	57.CAB15.001	-
APPLICATION			APVD			SCALE	1/1	SHEET 1 OF 1

1

2

1

2

PART NUMBER BLOCK

PART NUMBER REV

REVISIONS

ZONE REV DESCRIPTION DATE APPROVED

WHITE LABEL



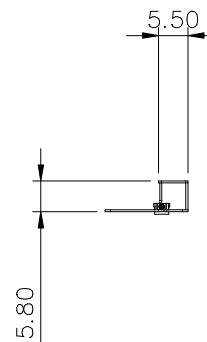
25.90077.001 R

WISTRON PART NO.

BLACK EVA

COLOR : BLACK
TOTAL LENGTH : 325±4

BLACK EVA



36.00

15.50

A

A

B

B

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

INTEGRAL DIMENSIONS ±

1 PLACE DECIMAL ±

2 PLACE DECIMALS ± 0.3

ANGULAR DIMENSIONS ± 1°

HOLES UNDER Ø5.00 ± 0.05

MATERIAL: NA

FINISH: NA

THIRD ANGLE PROJECTION

DRAWN

ARSENE YU

03/20/03

ENGR

ARSENE YU

03/20/03

APVD

wistron
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DWG TITLE

OUTLINE, AUX, CAB-A

SIZE DWG NO.

A3

57.CAB15.002

REV

-

SCALE

1/1

SHEET

1 OF 1

APPLICATION

1

2



Wistron NeWeb Corporation

6. Antenna Gain

Antenna Gain dBi @ GHz		2G4 ISM band			U-NII band			HyperLAN band		
		2.40	2.45	2.50	5.15	5.25	5.35	5.47	5.5975	5.725
MAIN	Peak Gain	0.01	2.25	2.59	4.09	3.44	3.97	3.65	3.03	1.81
	Avg. Gain	-3.71	-2.86	-3.84	-3.50	-2.90	-3.39	-2.81	-3.90	-3.32
AUX	Peak Gain	0.34	0.86	0.82	1.80	0.61	2.64	3.85	3.89	2.53
	Avg. Gain	-3.27	-3.18	-2.92	-3.50	-3.53	-1.97	-2.90	-2.73	-4.69

7. Cable Loss (including connector)

Unit: dBm	2G4 band	U-NII band	HyperLAN band
273 mm (MAIN)	-1.13	-1.69	-1.74
325 mm (AUX)	-1.29	-1.94	-2.00

8. Connector Info (general description)

Description (Cable)	Inner Conductor: AWG#32(7/0.8), Silver plating annealed copper wire Dielectric core: D0.68mm Outer conductor: 16/4/0.05 D0.93mm, Silver plating annealed copper wire Jacket: D1.13mm		
Requirements	Characteristic impedance: 50(+2, -2) ohm Nominal capacitance: 97pF/m Conductor resistance of inner conductor at 293K(20°C): 520ohm/km MAX Insulation resistance: 1500mega-ohm.km MIN Dielectric withstand voltage: no breakdown at AC1000V for 1min.		
Ratings	Rated voltage: AC60Vrms Nominal characteristics impedance: 50ohm VSWR: 1.3MAX DC~3GHz, 1.7MAX 3~6GHz		
Electric characteristics	Contact resistance	10mA MAX (DC or 1000Hz)	Center contact 74mohm MAX. Outer contact 27mohm MAX.
	Insulation resistance	100V DC	500Mohm MIN
	Voltage proof	200V AC for 1 min. Current leakage 2mA MAX	No flashover or breakdown

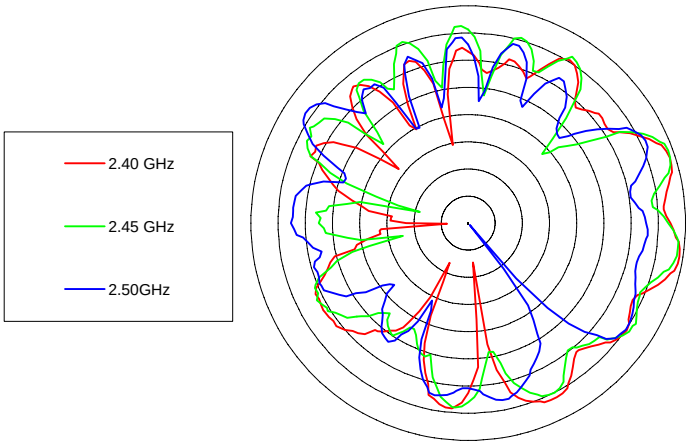
9. Radiation Pattern

(See the following Pages)

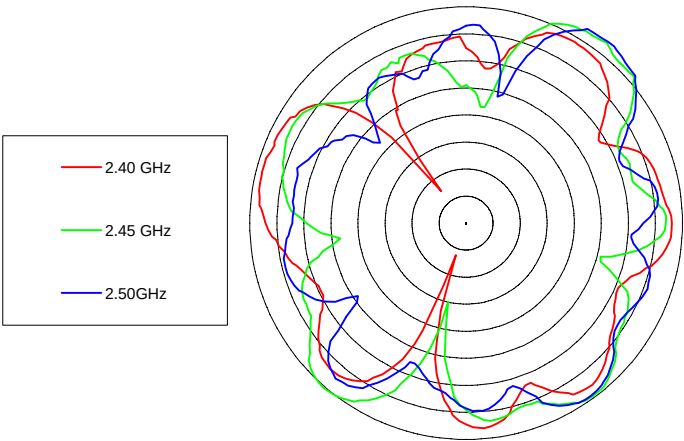
Platform: Pebble Configuration:1
Supplier: Wistron NeWeb coporation
Date: 2003/3/17

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

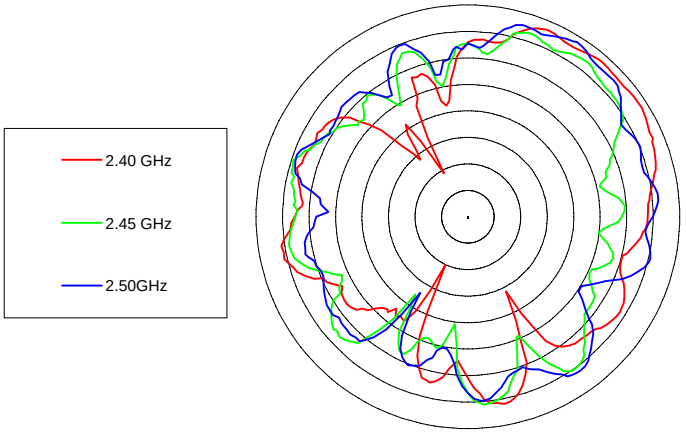
Main Horizontal



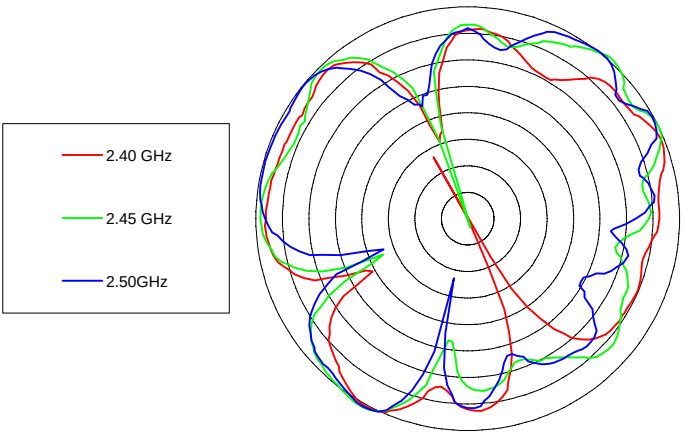
Main Vertical



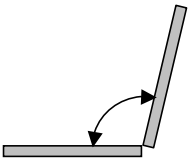
Aux Horizontal



Aux Vertical



2G4 ISM (2.400 GHz - 2.4835 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	2.4	-7.24	-0.63
	2.45	-7.12	-0.82
	2.5	-8.99	-3.82
Main Vert	2.4	-4.70	-0.94
	2.45	-3.78	2.25
	2.5	-4.45	2.59
Aux Horz	2.4	-6.46	-1.25
	2.45	-8.01	-3.17
	2.5	-6.57	-1.10
Aux Vert	2.4	-4.33	0.34
	2.45	-3.64	0.80
	2.5	-3.77	0.59



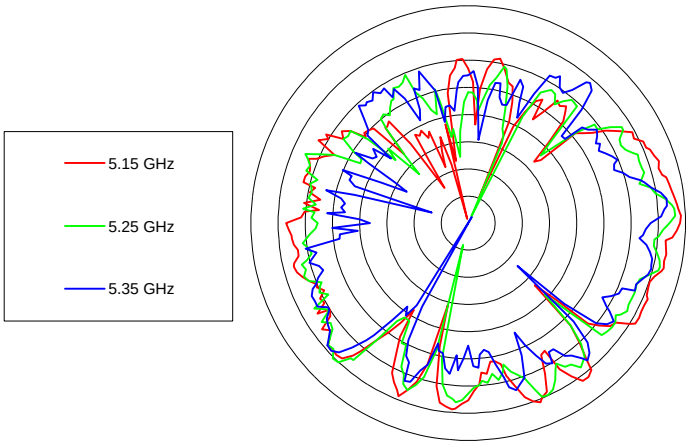
VSWR open = lid/keyboard angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle
Each circle with 5 dBi difference (Max=0 dBi and Min=-40 dBi)

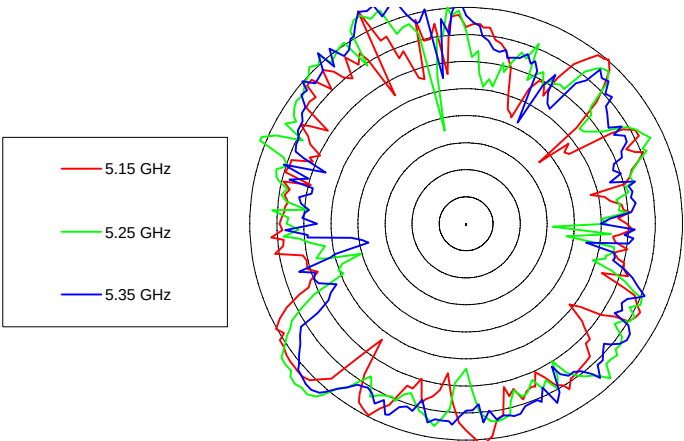
Platform: Pebble Configuration:1
Supplier: Wistron NeWeb coporation
Date: 2003/3/17

U-NII (5.150 GHz - 5.350 GHz) Antenna Radiation Patterns

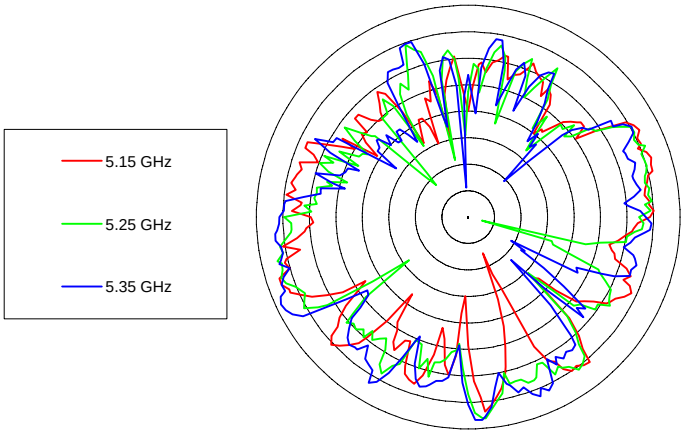
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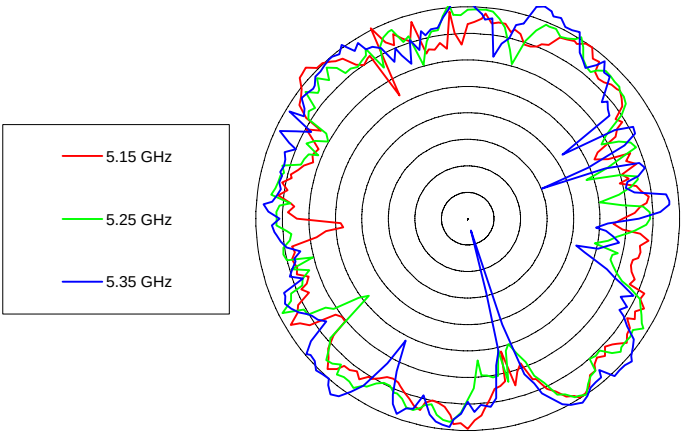
Main Vertical



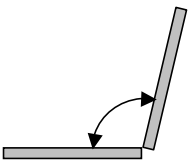
Aux Horizontal



Aux Vertical



U-NII (5.150 GHz - 5.350 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	5.15	-7.69	-0.83
	5.25	-8.99	-1.86
	5.35	-10.42	-3.19
Main Vert	5.15	-4.57	4.09
	5.25	-3.54	3.38
	5.35	-3.74	3.96
Aux Horz	5.15	-8.70	-2.53
	5.25	-8.62	-1.89
	5.35	-7.86	-0.98
Aux Vert	5.15	-4.01	1.80
	5.25	-3.95	0.61
	5.35	-2.66	2.64



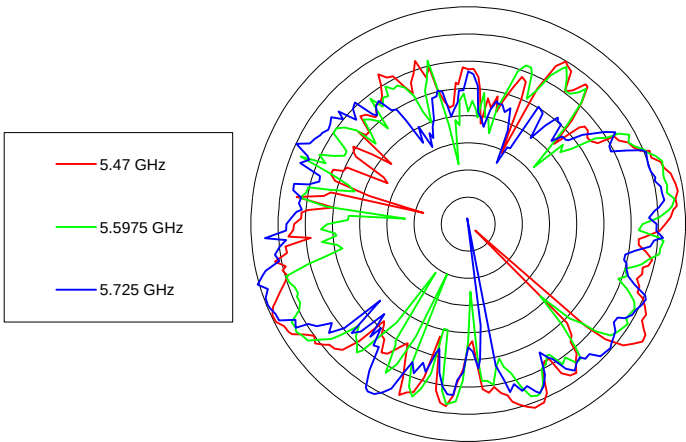
VSWR open = lid/keyboard angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle
Each circle with 5 dBi difference (Max=0 dBi and Min=-40 dBi)

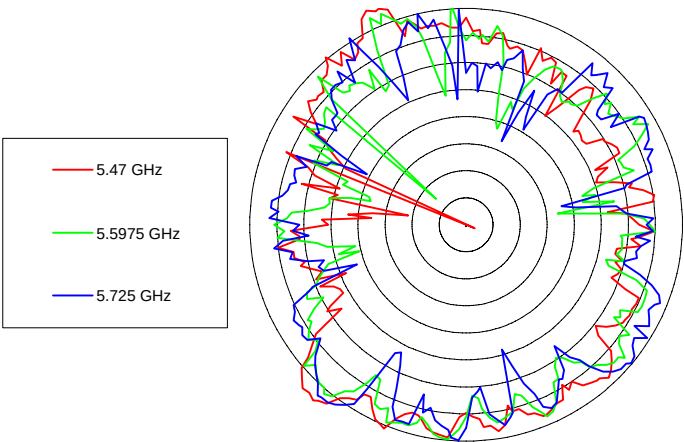
Platform: Pebble Configuration:1
Supplier: Wistron NeWeb coporation
Date: 2003/3/17

HyperLAN (5.470 GHz - 5.725 GHz) Antenna Radiation Patterns

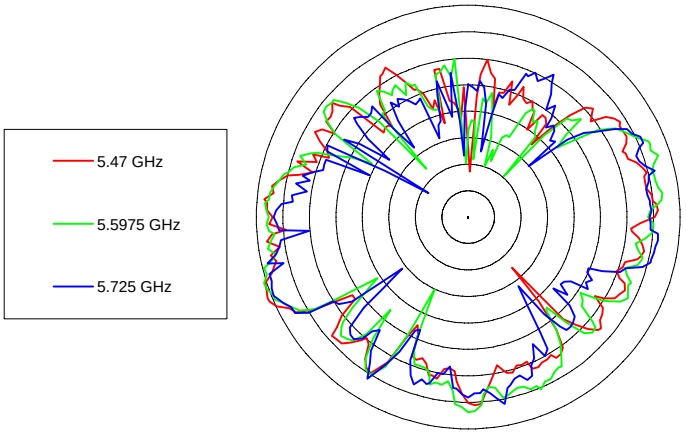
Main Horizontal



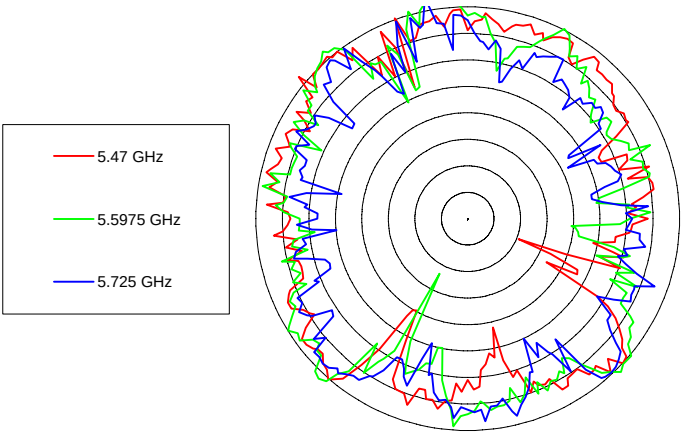
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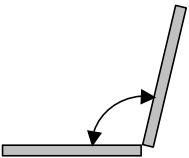
Aux Horizontal



Aux Vertical



HyperLAN (5.470 GHz - 5.725 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	5.47	-7.04	-0.21
	5.5975	-8.56	-1.69
	5.725	-7.66	0.32
Main Vert	5.47	-3.72	3.65
	5.5975	-5.00	2.17
	5.725	-4.51	1.81
Aux Horz	5.47	-7.26	0.86
	5.5975	-6.73	0.52
	5.725	-8.03	-0.35
Aux Vert	5.47	-3.93	1.66
	5.5975	-3.75	3.89
	5.725	-5.58	2.53



VSWR open = lid/keyboard angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle
Each circle with 5 dBi difference (Max=0 dBi and Min=-40 dBi)