

Abacus Antenna Regulatory Infomation

Description : **Triple-band Antenna(Main+Aux)**
Compal Computer Inc. P/N: **DC330005600**
 DC330005610
Wistron NeWeb P/N: **81.CAA15.001**
 81.CAA15.002

Wistron NeWeb Corporation

**No. 10-1,Li-hsin Road I,
Science-base Industrial Park,
Hsinchu 300,Taiwan, R.O.C.
Tel: 886-3-6667799#6568
Fax: 886-3-6667711**

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

I. Antenna Type

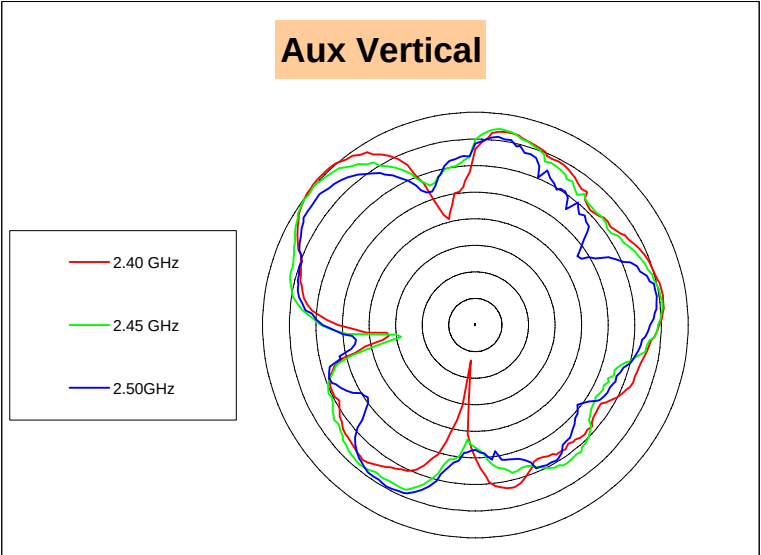
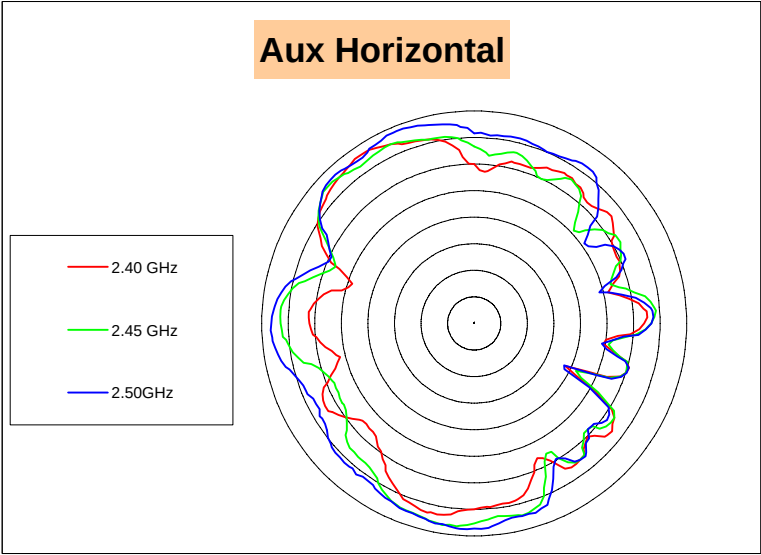
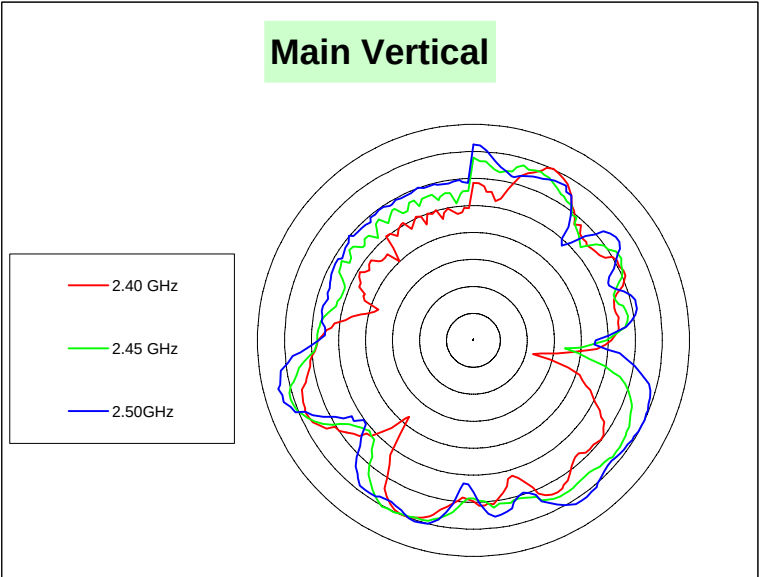
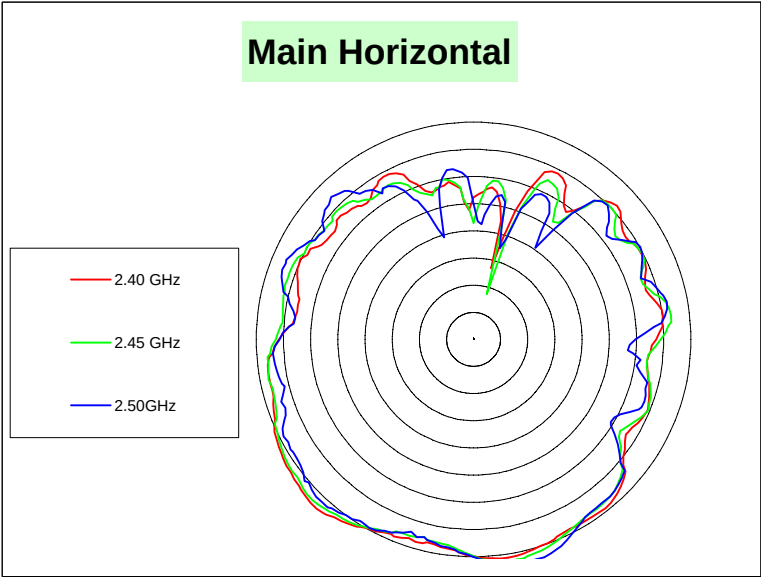
Position	Main Antenna (Left-side Antenna)	Aux Antenna (Right-side Antenna)
Antenna Type	PIFA	PIFA
Material	Metal sheet	Metal sheet

II. Peak Gain

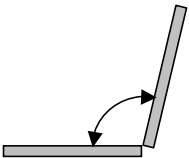
Antenna Gain		2G4 ISM (2.400 GHz - 2.4835 GHz)			U-NII (5.150 GHz - 5.350 GHz)			HyperLAN (5.470 GHz - 5.725 GHz)		
		2.40 GHz	2.45 GHz	2.50GHz	5.15 GHz	5.25 GHz	5.35 GHz	5.47 GHz	5.5975 GHz	5.725 GHz
MAIN	Peak dBi	2.55	1.91	2.19	1.29	1.89	2.88	3.78	4.38	3.64
	Avg dBi	-2.81	-2.78	-2.81	-2.01	-2.28	-1.52	-0.98	-1.30	-1.52
AUX	Peak dBi	0.82	0.68	-0.55	4.50	4.14	3.73	3.20	3.83	3.14
	Avg dBi	-3.23	-3.25	-3.75	-0.85	-0.81	-1.56	-2.16	-0.69	-0.85

Platform: Abacus
Supplier: Wistron NeWeb coporation
Date: 2003/12/29

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



2G4 ISM (2.400 GHz - 2.4835 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	2.4	-2.96	2.55
	2.45	-3.06	1.91
	2.5	-3.32	2.17
Main Vert	2.4	-10.62	-5.00
	2.45	-8.97	-4.47
	2.5	-7.80	-2.73
Aux Horz	2.4	-4.13	-1.73
	2.45	-4.65	-1.55
	2.5	-4.45	-0.96
Aux Vert	2.4	-6.43	0.42
	2.45	-6.49	0.04
	2.5	-7.91	-1.77



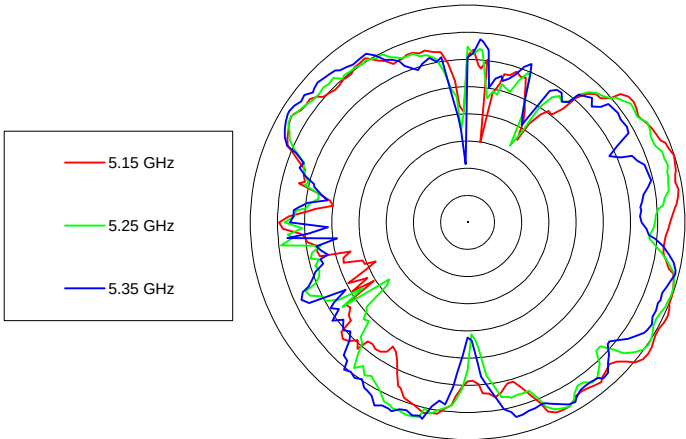
VSWR open = lid/keyboard angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle

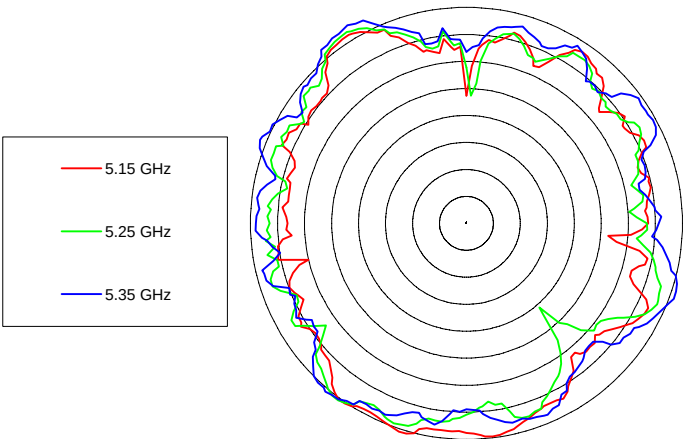
Platform: Abacus
Supplier: Wistron NeWeb coporation
Date: 2003/12/29

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

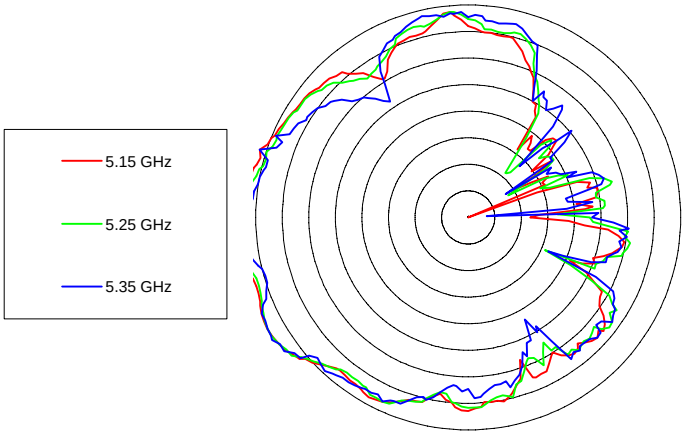
Main Horizontal



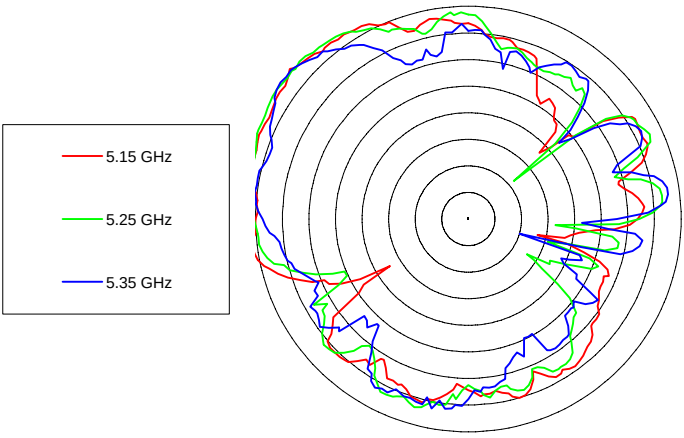
Main Vertical



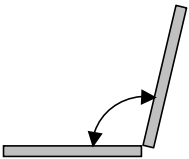
Aux Horizontal



Aux Vertical



U-NII (5.150 GHz - 5.350 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	5.15	-4.66	1.10
	5.25	-5.11	0.25
	5.35	-5.41	-0.59
Main Vert	5.15	-3.60	1.12
	5.25	-3.56	1.79
	5.35	-2.15	2.77
Aux Horz	5.15	-2.67	4.05
	5.25	-2.86	3.80
	5.35	-3.37	3.53
Aux Vert	5.15	-3.01	3.84
	5.25	-2.82	3.43
	5.35	-4.10	3.69



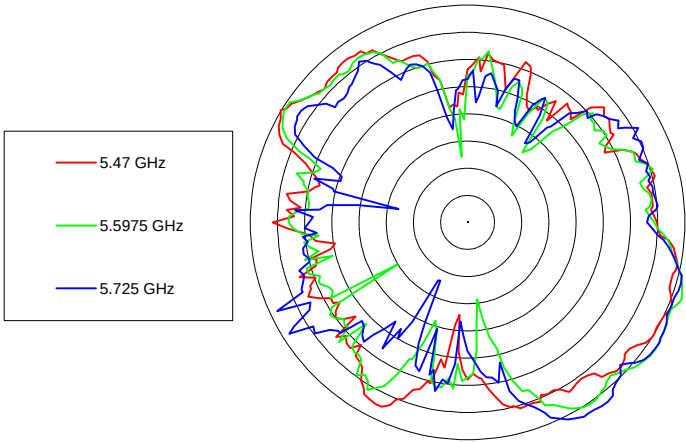
VSWR open = lid/keyboards angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle

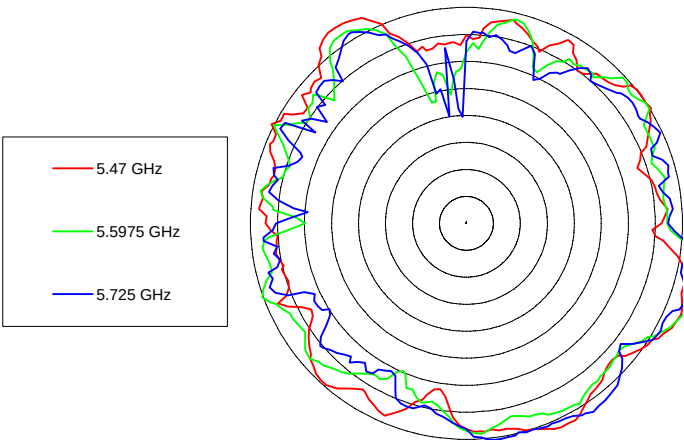
Platform: Abacus
Supplier: Wistron NeWeb coporation
Date: 2003/12/29

HyperLAN (5.470 GHz - 5.725 GHz) Antenna Radiation Patterns

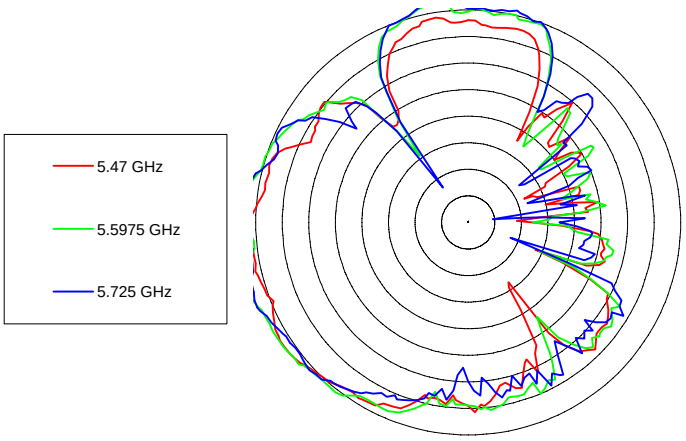
Main Horizontal



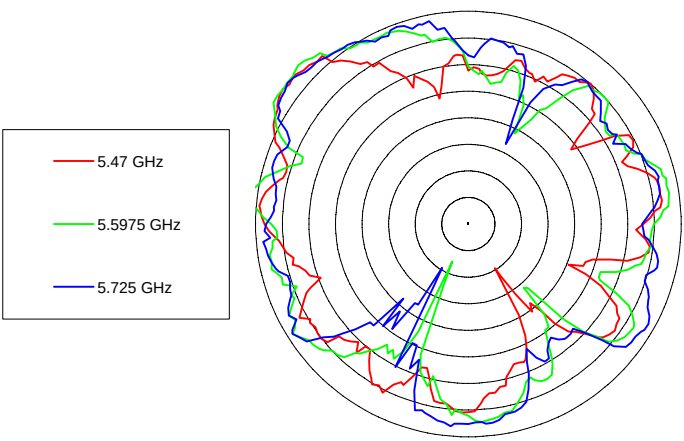
Main Vertical



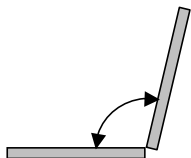
Aux Horizontal



Aux Vertical



HyperLAN (5.470 GHz - 5.725 GHz)			
CONFIG	FREQ GHz	Avg dBi	Pk dBi
Main Horz	5.47	-5.27	0.66
	5.5975	-4.97	1.86
	5.725	-4.92	1.92
Main Vert	5.47	-1.45	3.63
	5.5975	-2.06	3.74
	5.725	-2.33	2.99
Aux Horz	5.47	-3.91	1.81
	5.5975	-2.31	3.55
	5.725	-2.67	2.84
Aux Vert	5.47	-4.90	3.15
	5.5975	-3.48	3.81
	5.725	-3.41	3.13



VSWR open = lid/keyboard angle 110°

Note: The outer circle approximately represents the 0 dBi gain circle

III. Antenna Model Number

Model number: CAA-C

IV. Manufacturing Info

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

**V. Antenna Dimensions (Mechanical drawings)
(See Next 2 Pages)**

1

2

PART NUMBER BLOCK

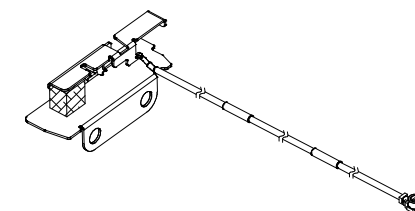
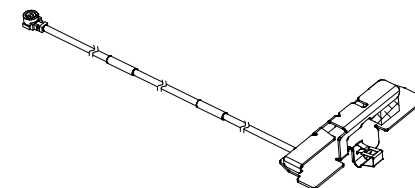
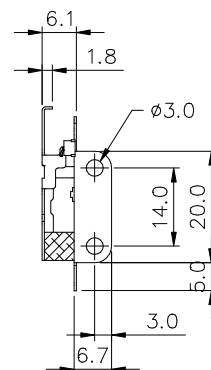
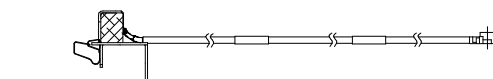
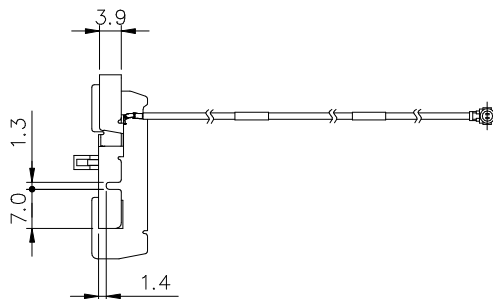
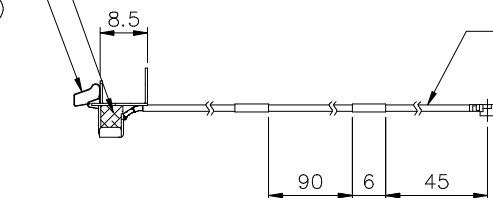
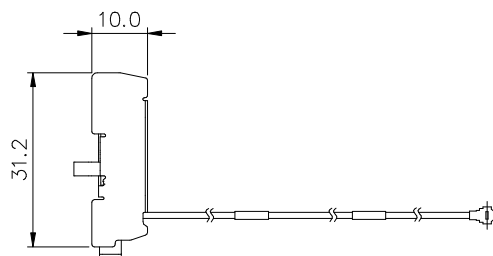
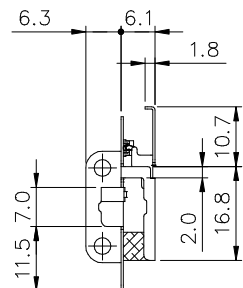
PART NUMBER REV

REVISIONS

ZONE REV DESCRIPTION DATE APPROVED

BUFFER
PORON HH48
FINGER STRIP
(EMI STOP P/N SQ-47)

CABLE LENGTH: 400±4
COLOR: WHITE



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS
ARE IN mm AND TOLERANCES ARE:
INTEGRAL DIMENSIONS ±0.2
1 PLACE DECIMAL ±0.1
2 PLACE DECIMALS ±0.05
ANGULAR DIMENSIONS ±1°
HOLES UNDER Ø5.00 ±0.05

MATERIAL: NA

FINISH: NA

THIRD ANGLE PROJECTION

DRAWN

THOMAS SHIEH

01/14/03

ENGR

THOMAS SHIEH

01/14/03

APVD



NEXT ASSY

USED ON

APPLICATION

wistron
Wistron NetWeb Corp.

啟碁科技股份有限公司
No. 10-1, Li-hsin Road 1, Science-based Industrial Park,
Hsinchu 300, Taiwan, R.O.C.
Tel: 886-3-6667799 Fax: 886-3-6667711

DWG TITLE

OUTLINE, RIGHT ANTENNA, CAA-C

SIZE DWG NO.

A3

C414-91.CAA15.001

REV

SE

SCALE

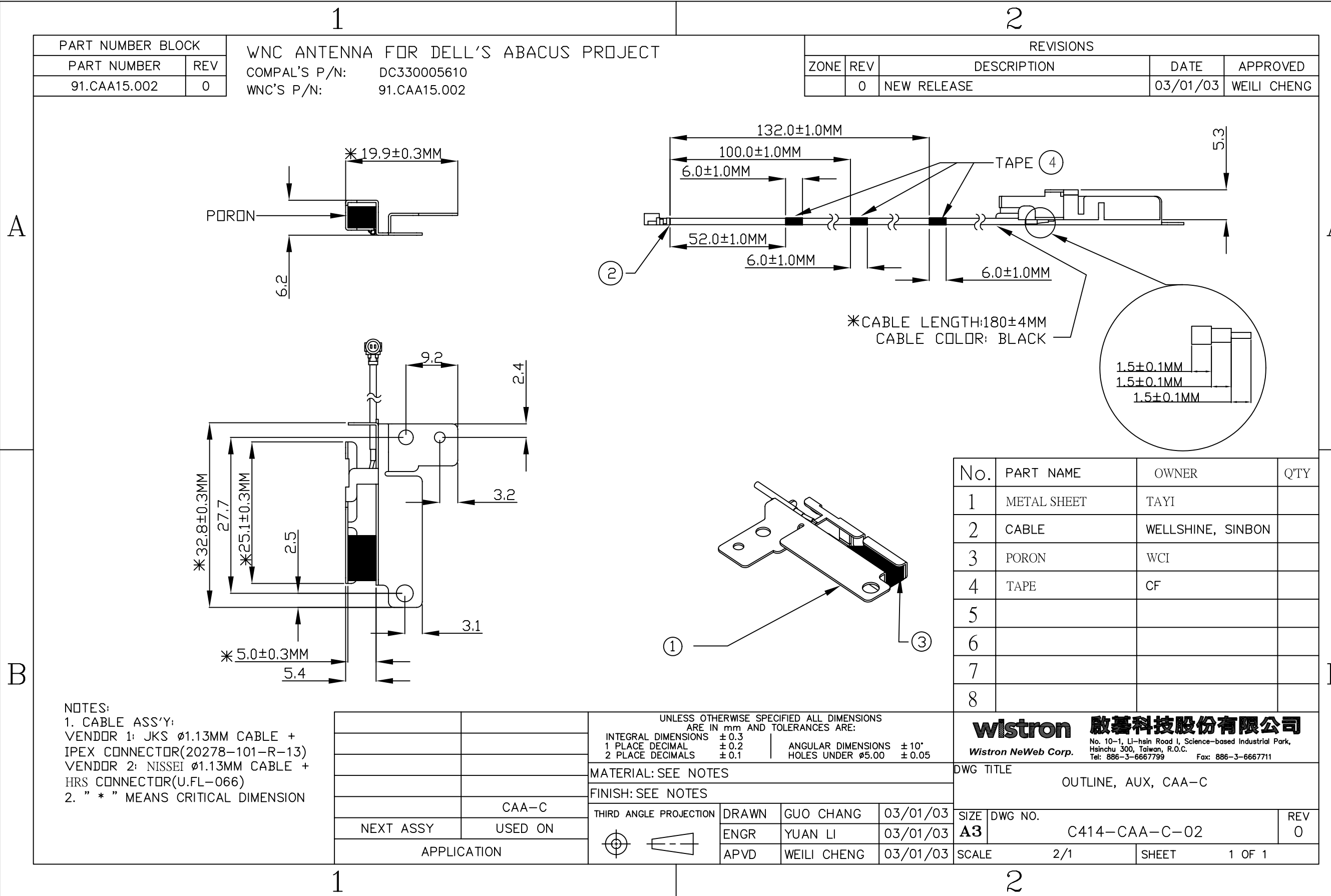
1/1

SHEET

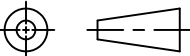
1 OF 1

1

2



NOTES:
1. CABLE ASS'Y:
VENDOR 1: JKS Ø1.13MM CABLE +
IPEX CONNECTOR(20278-101-R-13)
VENDOR 2: NISSEI Ø1.13MM CABLE +
HRS CONNECTOR(U.FL-066)
2. " * " MEANS CRITICAL DIMENSION

		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:			
		INTEGRAL DIMENSIONS ±0.3		ANGULAR DIMENSIONS ±10°	
		1 PLACE DECIMAL ±0.2		HOLES UNDER Ø5.00 ±0.05	
		2 PLACE DECIMALS ±0.1			
		MATERIAL: SEE NOTES			
		FINISH: SEE NOTES			
	CAA—C	THIRD ANGLE PROJECTION 	DRAWN	GUO CHANG	03/01/03
NEXT ASSY	USED ON		ENGR	YUAN LI	03/01/03
APPLICATION			APVD	WEILI CHENG	03/01/03

No.	PART NAME	OWNER	QTY
1	METAL SHEET	TAYI	
2	CABLE	WELLSHINE, SINBON	
3	PORON	WCI	
4	TAPE	CF	
5			
6			
7			
8			

wistron 啟基科技股份有限公司	
Wistron NeWeb Corp.	
No. 10-1, Li-hsin Road I, Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C. Tel: 886-3-6667799 Fax: 886-3-6667711	
DWG TITLE	
OUTLINE, AUX, CAA-C	
SIZE	DWG NO.
A3	C414-CAA-C-02
SCALE	2/1
SHEET	1 OF 1

VI. Pictures of Antennas

Main Antenna	Aux Antenna
	

VII. Cable Length

Left-side antenna: 180mm Φ 1.13mm

Right-side antenna: 399.5mm Φ 1.13mm

(From the center of connector to the end of cable)

VIII. Cable Loss (including connector)

Unit: dB	2G4 band	U-NII band	HyperLAN band
180mm	0.9	1.07	1.12
399.5mm	1.41	2.02	2.14

XI. Antenna Material

Main antenna	Aux antenna
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

X. 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