



Wistron NeWeb Corp.

# APPROVAL SHEET

Customer Name: **Pegatron**

Date: **07/29/2015**

Doc. Version: **1**

OEM P/N	<b>1415-04LN000</b>
WNC P/N	<b>1415-04LN000 (81.EL115.GDL)</b>
Description	<b>SWITCH10"VALUE/P0JBC,ANTENNA,WLANMAIN,EL1-U9</b>
Version	<b>A01</b>

Provided By Wistron NeWeb Corp	Reviewed By Wistron NeWeb Corp	Approved By Customer
<b>Nathan Cheng</b>	<b>Jason Hsiao</b>	

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# Index

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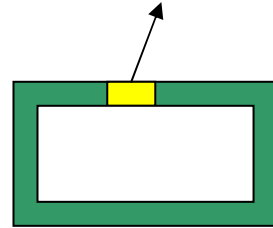
- 1. Introduction**
- 2. Revision History**
- 3. Product Specifications**
- 4. Antenna Performance**

# 1. Introduction


## Antenna for WLAN system

### WLAN Main antenna (PIFA type)

WLAN Main  
Antenna (Left side)



1. Location: Right side of the LCD panel
2. Cable length of WLAN Main antenna: 50 mm, Black (connector with  $\Phi$  1.13mm RF cable)

	WLAN Main Antenna
Position	Left side , side of LCD
Antenna Type	PIFA type
Cable	Cable color : Black 1.13 (dia) x 50 mm, RF connector
Photo	 <p>The photo shows the physical antenna component, which is a small rectangular piece with a black top layer and a gold-colored bottom layer. A black cable is attached to the right side. The component is placed on a blue surface next to a ruler. The ruler shows a length of 50 mm. The antenna has the following markings: 1415-04LN000 and 150623 50412 X05.</p>

## 2. Revision History

Date	Version	Change Description
07/24/2015	A01	New Release

## 3. Product Specifications

### 3.1 Specifications of Antenna Design

Measure environment LCD angle 110 degree

#### 3.1.1 VSWR

WLAN Main	2400 MHz ~ 2500 MHz	5150 MHz ~ 5850 MHz
VSWR	<2.5	<2.5

#### 3.1.2 Antenna specification

WLAN Main	2400 MHz ~ 2500 MHz	5150 MHz ~ 5850 MHz
Peak dBi	<3	<6

### 3.2 Mechanical Specifications

See the attached drawing.

1

2

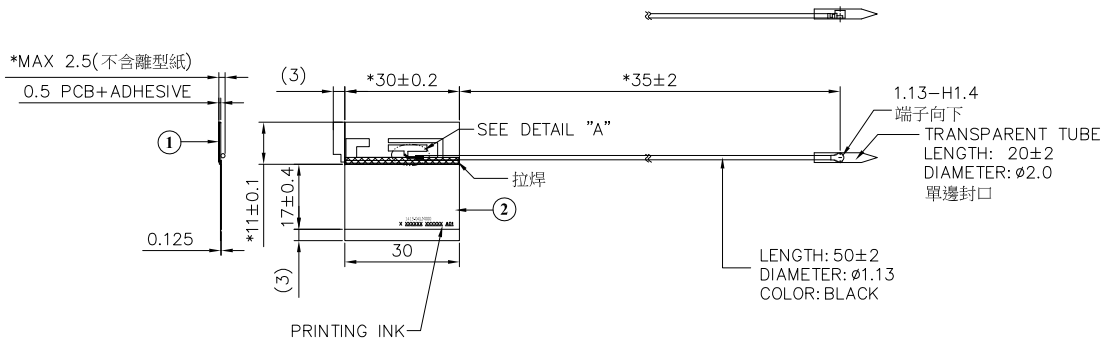
3

4

WNC PROPRIETARY

PART NUMBER BLOCK		CUSTOMER P/N BLOCK		CONFIRM ANTENNA SPEC.	
PART NUMBER	REV	PART NUMBER	REV	APPROVED	DATE
57.EL115.ODL	H	1415-04LN000	A01	NATHAN CHENG	08/06/15

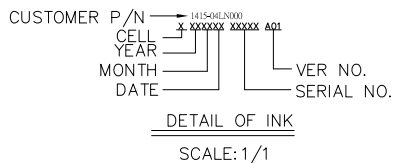
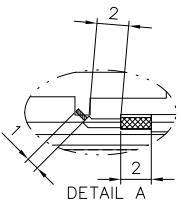
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	H	NEW RELEASE	08/06/15	EDWARD SU



NOTES: PCB ANTENNA SHOULD BE USED HEREUNDER.

⊗ 48.EL13Y.SGA  
EL1-U9, PCB, FR4 0.4MM OP HF, WLAN MAIN, SAMPLE

NOTES : "\*"ARE THE CRITICAL DIMENSIONS  
ALL SUB-MATERIAL CAN NOT BE ATTACHED OVER THE EDGE OF ANTENNA BODY.



2	5PEL1U009C1-111	PLATE, COPPER FOIL, WLAN-1, NYC, EL1-U9	EA	1
1	5TEJPA004T3-111	TAPE, ADHESIVE, WLAN_1, NYC, EJP-A4	EA	1
ITEM	PART NO.	DESCRIPTION	UNIT	QTY

ONLY ME PARTS REFERENCE

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:		<b>WNC</b> 啟碁科技股份有限公司 20 Park Avenue II, Hsinchu Science Park, Hsinchu 306, Taiwan, R.O.C. Tel: 886-3-6667799 Fax: 886-3-6667321	
INTEGRAL DIMENSIONS	± 0.2	ANGULAR DIMENSIONS	± 1°
1 PLACE DECIMAL	± 0.1	HOLES UNDER Ø5.00	± 0.05
2 PLACE DECIMALS	± 0.05		
MATERIAL:	NA		
FINISH:	NA		
THIRD ANGLE PROJECTION	DRAWN	TERESA SF LIU	08/06/15
	ENGR	NATHAN CHENG	08/06/15
	APVD	EDWARD SU	08/06/15
APPLICATION	SIZE	DWG NO.	REV
	A2	57.EL115.ODL	H
	SCALE	1/1	SHEET 1 OF 1

1

2

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4

### 3.3 Antenna Material List

WLAN Main Antenna	
1.	Coaxial cable and RF connector
2.	Transparent tube
3.	Tape Adhesive
4.	Plate Copper
5.	Weight: 1.0g

### 4 Antenna Performance

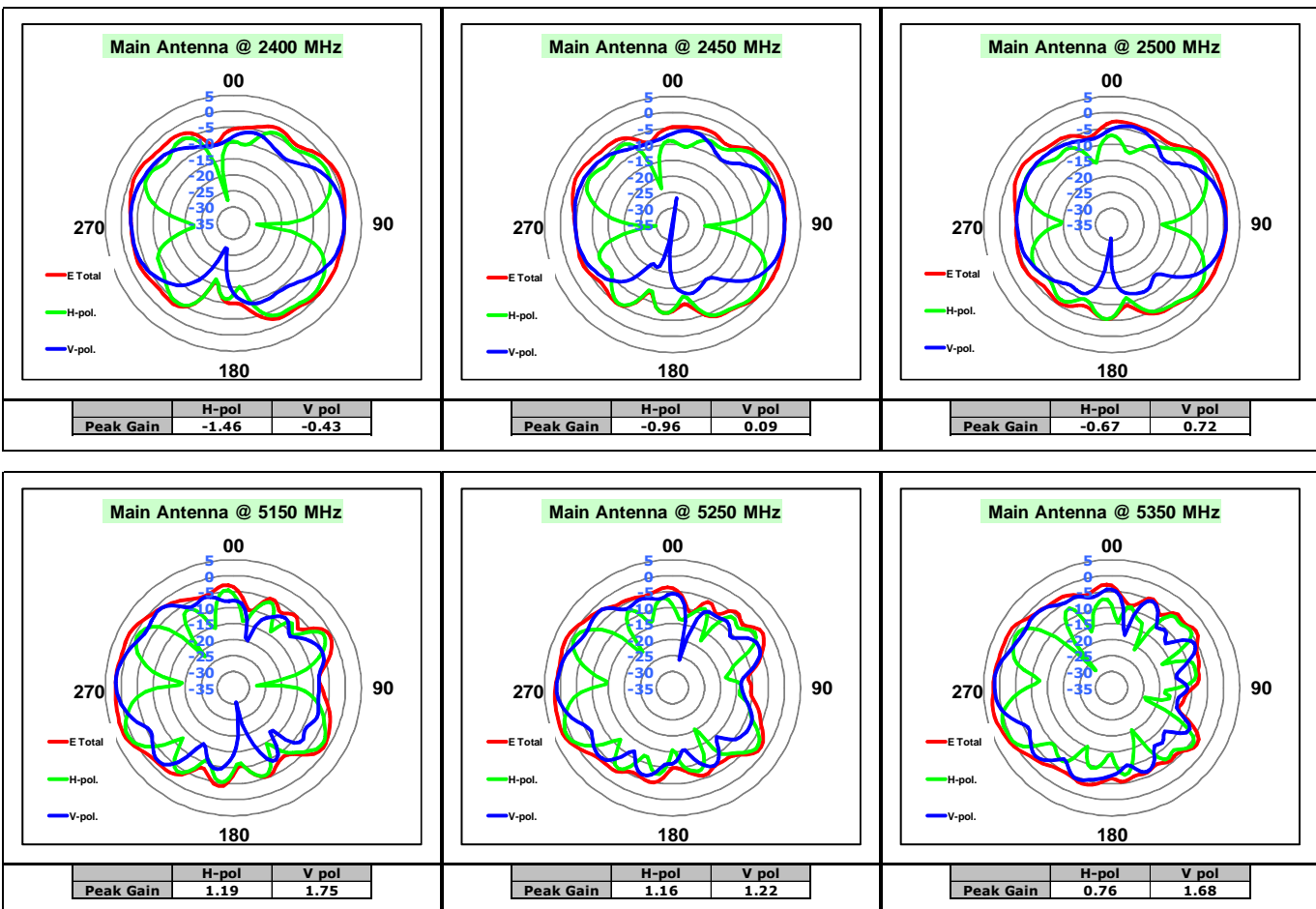
#### 4.1 VSWR

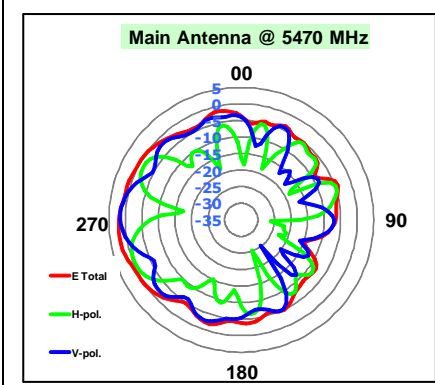


### 4.2 Antenna Peak Gain

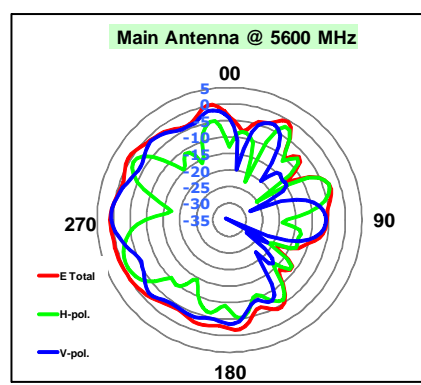
Frequency (MHz)	Main antenna	
	Horizontal (dBi)	Vertical (dBi)
2400	-1.46	-0.43
2450	-0.96	0.09
2500	-0.67	0.72
5150	1.19	1.75
5250	1.16	1.22
5350	0.76	1.68
5470	-0.33	1.55
5600	-1.04	0.78
5725	-1.31	0.41
5785	-2.08	0.06
5850	-2.27	0.01

### 4.3 Antenna Pattern

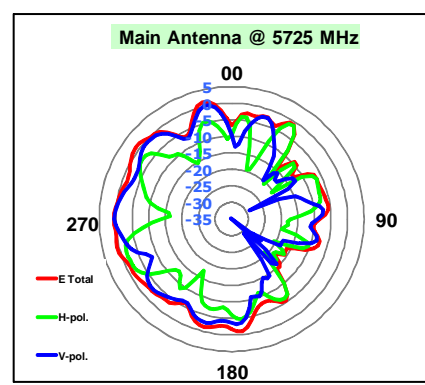




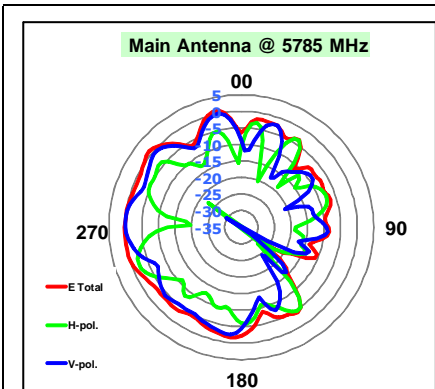
	H-pol	V-pol
Peak Gain	-0.33	1.55



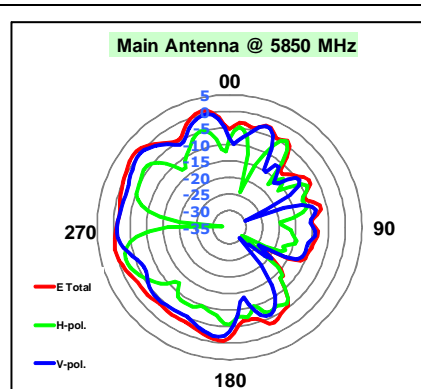
	H-pol	V-pol
Peak Gain	-1.04	0.78



	H-pol	V-pol
Peak Gain	-1.31	0.41



	H-pol	V-pol
Peak Gain	-2.08	0.06



	H-pol	V-pol
Peak Gain	-2.27	0.01