

Measurement of Maximum Permissible Exposure

1. Foreword

In adopt with the Human Exposure IEEE C95.1, and according to the FCC 1.1310. The *Maximum Permissible Exposure (MPE)* is obligated to measure in order to prove the safety of radiation harmfulness to the human body.

The *Gain* of the antenna used is measured in an *Anechoic chamber*. The *maximum total power to the antenna* is to be recorded. By adopting the ***Friis Transmission Formula*** and the *power gain of the antenna*, we can find the distance right away from the product, where the limit of the MPE is.

2. Description of EUT

Granted FCC ID	:	MSQWL120G
Product name	:	Wireless LAN Mini-PCI Card
Model name	:	WL-120g
Classification	:	Mobile Device
		(i) Under normal use condition, the antenna is at least 20cm away from the user;
		(ii) Warning statement for keeping 20cm separation distance and the prohibition of operating next to the person has been printed in the user' s manual
Frequency Range	:	2.412 GHz ~ 2.462GHz
Supported Channel	:	11 Channel
Modulation Skill	:	DBPSK, DQPSK, CCK, OFDM
Power Type	:	Powered by Mini-PCI interface of client' s device

3. Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	100	6
3.0-30	1842/f	4.89/f	900/f ²	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	100	30
1.34-30	824/f	2.19/f	180/f ²	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

[The EUT is tested in transmit and receive modes and in the first, middle and the last channel separately. The following shows only our observation have the greatest emissions.]

According to OET BULLETIN 56 Fourth Edition/August 1999, Equation for Predicting RF Fields:

$$\text{Friis Transmission Formula: } S = \frac{PG}{4\pi R^2} = \frac{133.968 \times 1.995}{4\pi(20)^2} = 0.053 \text{ mW/cm}^2$$

$$\text{Estimated safe separation: } R = \sqrt{\frac{PG}{4\pi}} = \sqrt{\frac{133.968 \times 1.995}{4\pi}} = 4.612 \text{ cm}$$

Remarks: "The safe estimated separation that the user must maintain from the antenna is at least 4.612 cm."

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

The Numeric gain G of antenna with a gain specified in dB is determined by:

$$G = \text{Log}^{-1} (\text{dB antenna gain} / 10)$$

$$G = \text{Log}^{-1} (3 / 10) = 1.995$$

APPROVAL SHEET

PCB ANTENNA

ISM BAND Series

2.4 GHz Band Working Frequency

Component A: RFPCA530661IFABA01

Component B: RFPCA530645IFABA02

Customer : ASUSTeK Computer Inc.

Module Name : Notebook L5C

Approval No : 14-152016112 (L5 WLAN ANTENNA_L/BLACK)

14-152016012 (L5 WLAN ANTENNA_R/GRAY)

Issue Date : July, 16 2003

Customer Approval :

WALSIN Technology Corp.

Authorized By : 



REVISION HISTORY

REV	Date	Description	CHK	APVD	Date
1	16-July	Walsin P/N change according to cable dimension	Jo	Kevin	16-July

ELECTRICAL CHARACTERISTICS

Item	Specification
Frequency Range	2.4 ~2.4835 GHz
Peak Gain	< 3dBi
Average Gain	> -5 dBi
VSWR	2.5 max
Polarization	Linear
Impedance	50Ω

*note: Electrical characteristics will depend on customer's final application. Data provided in this sheet has been approved on ASUS L5C model.

MATERIAL TABLE

Items	Vendor	Part number	Description
Connector	I-PEX	22078-111R-13	MHF series micro coaxial connector plug vertical
Cable	Hitachi	UL1745	AWG#32x1C
Adhesive	Sony Chemicals Corp.	T4000	Industrial Adhesive Tape

Note: Hitachi cable is replaceable by AXON or HannStar while Hitachi is short of supply.

CODING RULE

RF	PCA	5010	60	I	F	A	B	A	01
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Packing	Customer	Project
Walsin RF Device	PCA: PCB Antenna	Per 2 digits of length, width e.g.: 5010 Length 50mm, Width 10mm	2 digits for cable length e.g.: 60 Length 60cm	I: IPEX H: Hirose M: MMCX	F: Female M: Male	A: 2.4GHz ISM band B: GSM 900/1800 dual band L: 2.4/5.2/5.8 GHz tri-band	B: Bulk X: SFC product	—	01~99 series number

Technical drawing showing two cable components, Component A and Component B, with dimensions and a parts list.

Component A:

- Cable color: Black
- Dimensions: 610±5 mm (total length), 405±5 mm (yellow section), 40±2 mm (yellow section), 220±5 mm (white section), 44±0.5 mm (blue section), 6.0±0.5 mm (blue section), 53±1.0 mm (blue section).
- Other dimensions: 10±1 mm, 4±1 mm.

Component B:

- Cable color: Gray
- Dimensions: 450±5 mm (total length), 53±1.0 mm (blue section), 44±0.5 mm (blue section), 6.0±0.5 mm (blue section).

Parts List:

1	U006-002-0010	I-PEX RF Conn.			
2	U011-002-0009	RG-178 1.13 (mm) 32AWG			

Revision Table:

Rev	Date	By	Check
1	2008/08/17	BLUEJAY	
2	2008/08/17		
3	2008/05/06		

Part Number: RFNBA 1015 k 1016

Page: 1/1

DATA SHEET

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a & UNII

Product specification: Version x02

Oct 24, 2003

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
								—	x02	Oct 24, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	9	PAGE/ 頁	1	SH nr.	—	4	
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M6N Multi Band Antenna
FOR WLAN IEEE 802.11b/11g/11a, UNII
(With Cable & Mini PCI Connector)

Product Specification

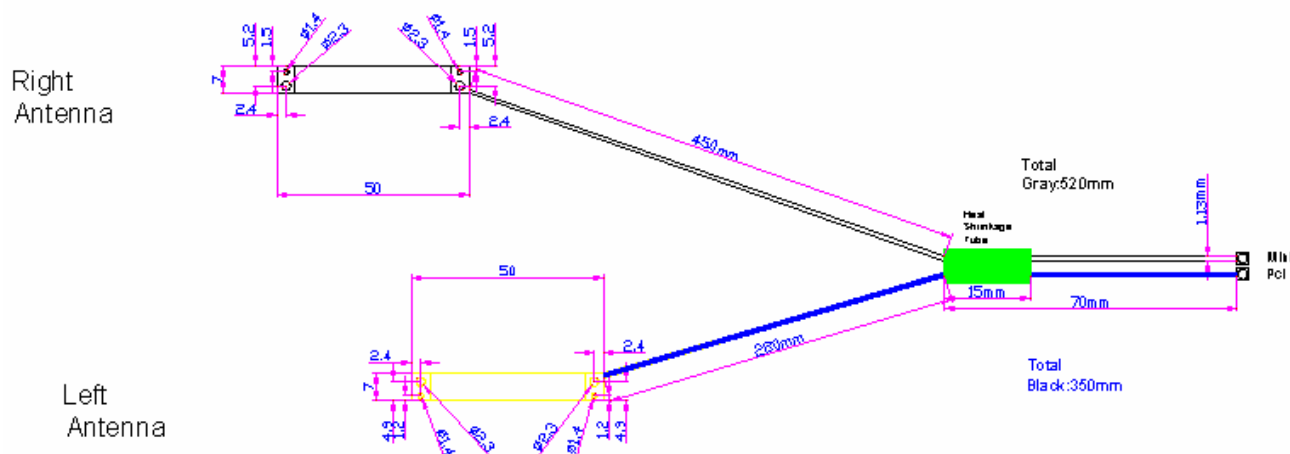
QUICK REFERENCE DATA

Antenna Patch Dimension	50*7*0.5 mm Left Antenna 50*7*0.5 mm Right Antenna
Left LCD Cable Length	350 mm, Color Black (CAN4313342012501B)
Right LCD Cable Length	520 mm, Color White or Grey (CAN4313342022501B)
MiniPCI Connector	Ipex / Hirose or Compatible
Peak Gain	1.1 dBi/2.45GHz Band (14.1") 0.6 dBi/2.45GHz Band (15") 4.6 dBi/2.45GHz Band (14.1") 4.4 dBi/5GHz Band (15")
VSWR	2.5 for 2.45GHz band 2.85 for 5GHz band
Polarization	Linear
Impedance	50Ω
Operating Temperature	-40~90 °C
Maximum Power	1W



Supplier Address	Yageo/Phycomp (Taiwan) Ltd. 16, west 3rd Street, N.E.P.Z Kaohsiung, 811 Taiwan, R.O.C. Yageo/Phycomp Electronics (China) Co, Ltd No. 10, Zhu Yuan Road, Suzhou New District, Suzhou, PRC
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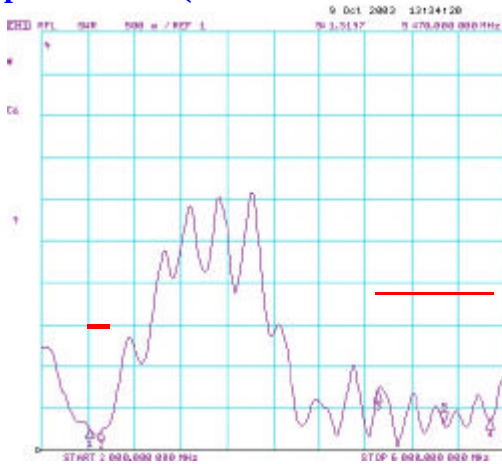
2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B					—	x01	Aug 27, 03
									—	x02	Oct 24, 03
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BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	9	PAGE/ 頁	2	SH nr.	—	4	
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DIMENSIONAL DATA and Connector/Cable Information (Tolerance: ± 0.25 mm)**- Antenna Body (Main and Aux, Copper Metal Material):**

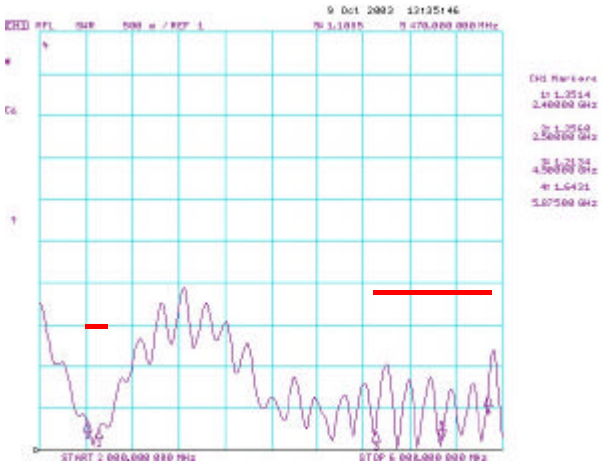
Note: The coaxial cable will be a 1.13mm diameter cable, single shielded, cable. It's inner conductor of the cable is silver-coated annealed copper wire or tin-copper plated alloy, the dielectric is a fluoro-plastic (FEP) with a nominal diameter of 0.68mm and a nominal thickness of 0.22mm, the outer conductor is silver plated annealed copper wire with a nominal diameter of 0.93mm, and the jacket is a fluoro-plastic (FEP) with an outer diameter of 1.13mm with a nominal thickness of 0.1mm. The cable has a characteristic impedance of 50ohm, an insulation resistance of 1500meg-ohm/km maximum, and no breakdown for a dielectric withstanding voltage of 2000VAC for 1 minute. The insertion loss of a 250mm long cable assembled on both ends shall be no more than 0.85dB at 2.45GHz and no more than -1.5dB at 6.0GHz.

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B					—	x01	Aug 27, 03
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Typical VSWR (After Installation in Notebook)



Left Antenna



Right Antenna

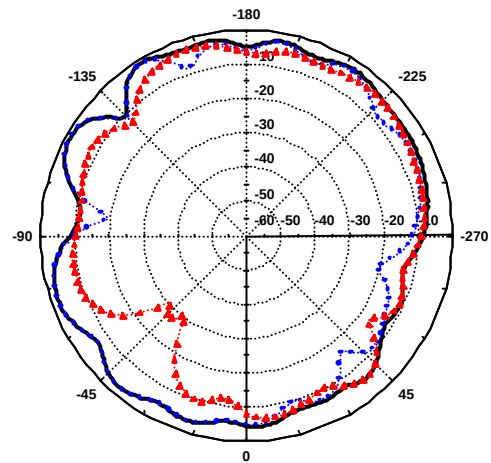
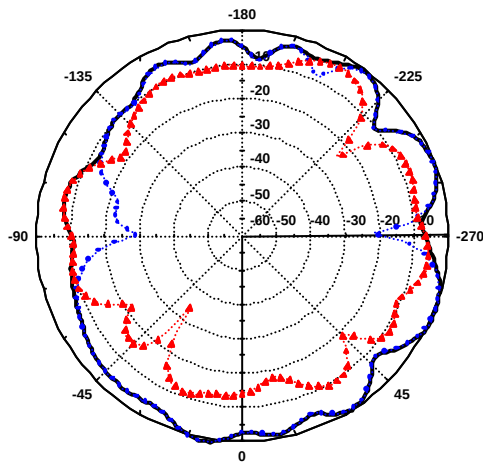
Note: May vary for different devices

Typical Radiation Pattern Polar Plot (Based on After Antenna Installation)

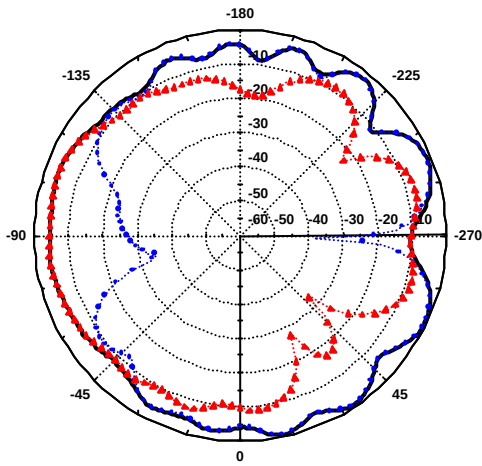
- Left

- Right Antenna

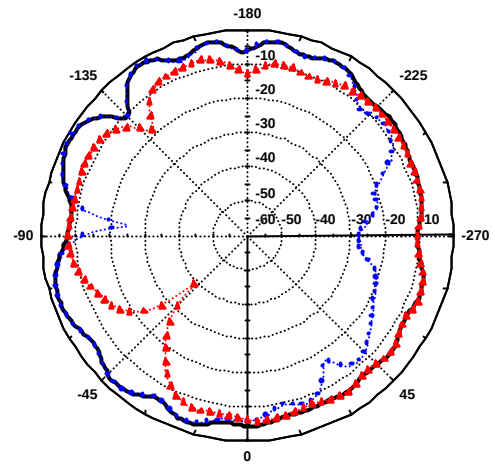
14.1" LCD



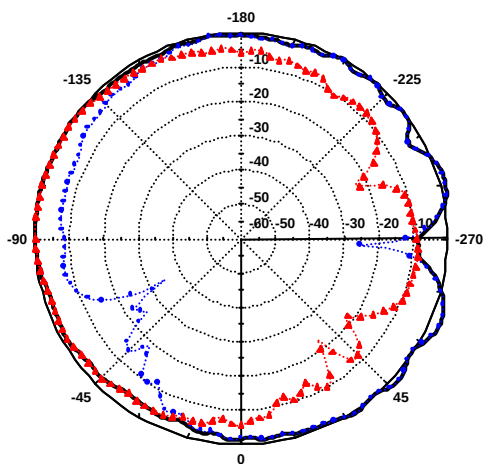
2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1" & 15") Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03
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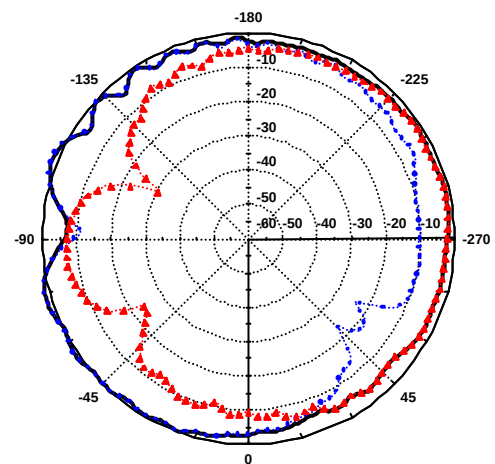
2500 MHz (Max Gain: -0.6dBi)



2500 MHz (Max Gain: -1.1dBi)

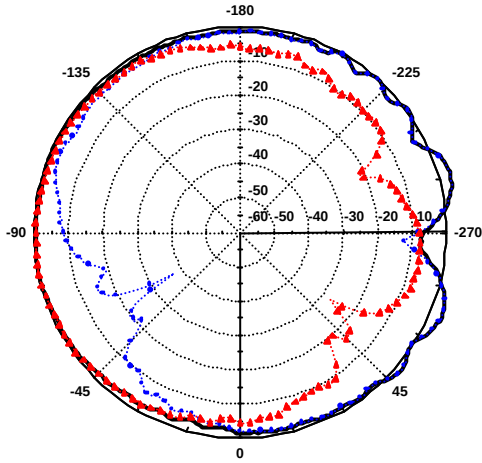


5150 MHz (Max Gain: 3.0dBi)

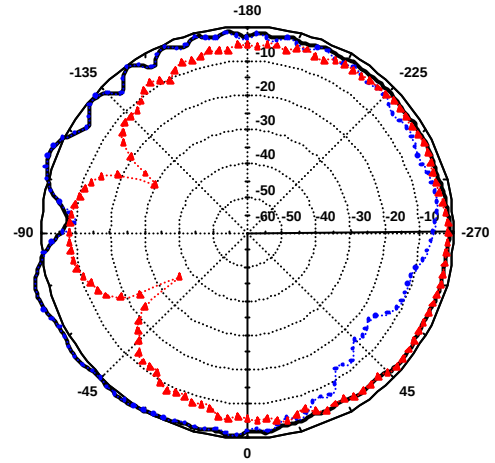


5150 MHz (Max Gain: 1.7dBi)

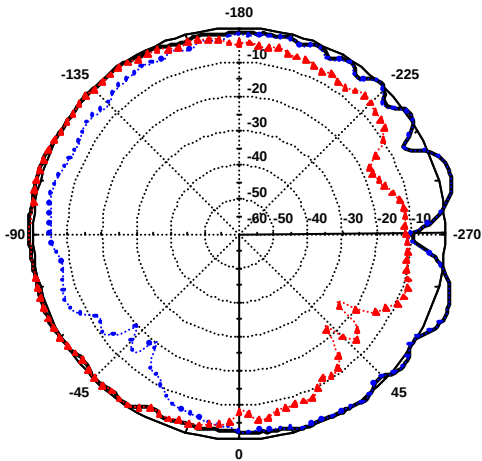
2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
								—	x02	Oct 24, 03	
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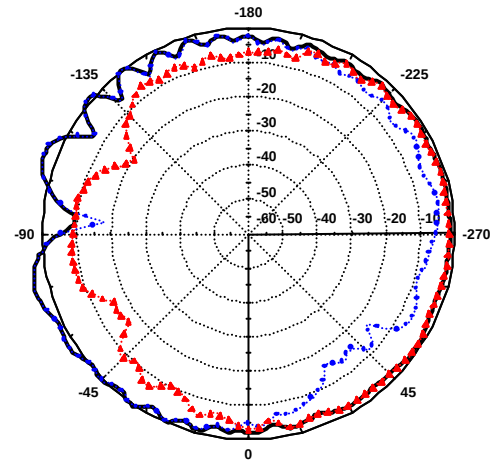
5350 MHz (Max Gain: 3.7dBi)



5350 MHz (Max Gain: 3.9dBi)



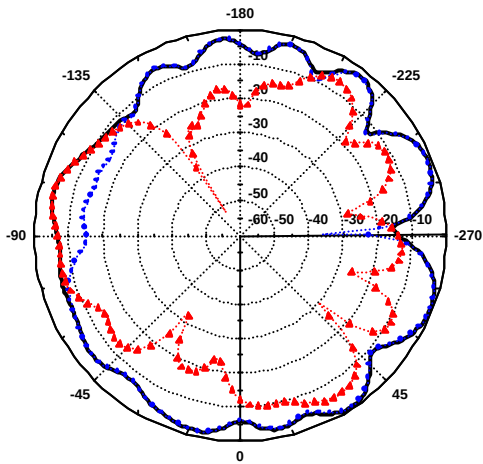
5725 MHz (Max Gain: 4.6dBi)



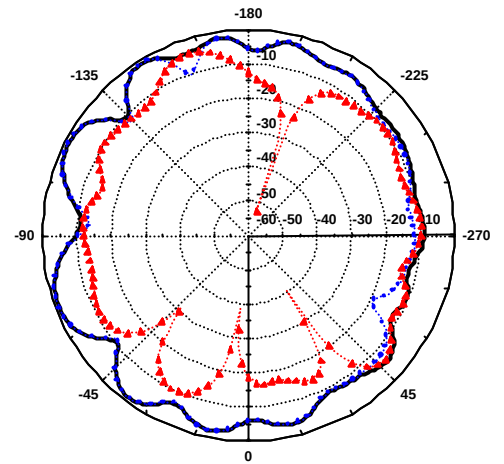
5725 MHz (Max Gain: 4.3dBi)

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
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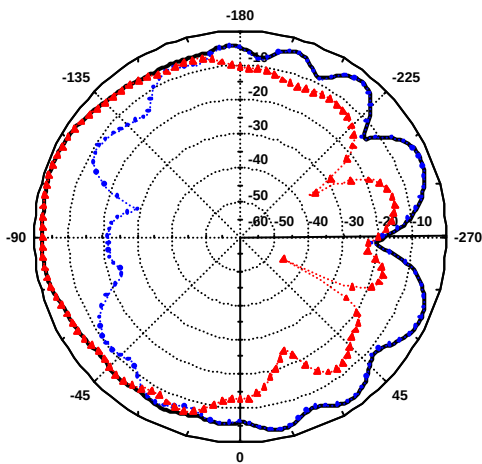
15" LCD



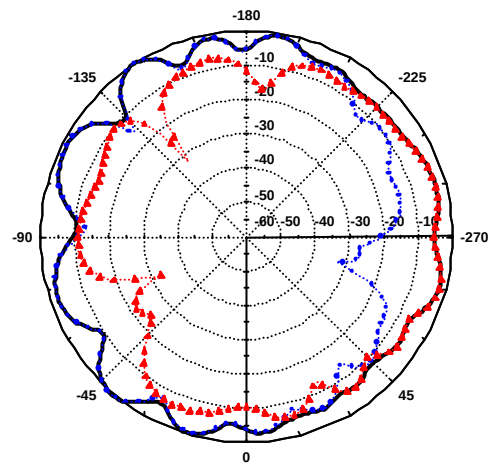
2400 MHz (Max Gain: -0.2dBi)



2400 MHz (Max Gain: -0.9dBi)

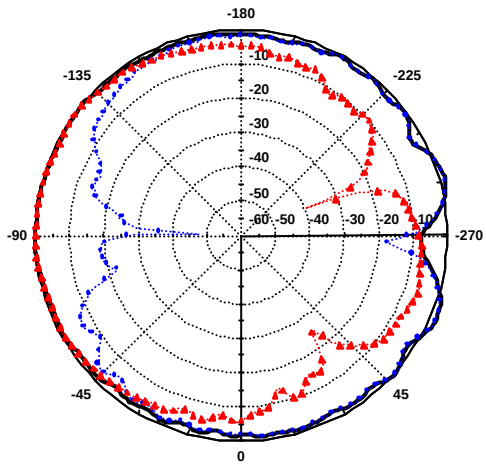


2500 MHz (Max Gain: -1.4dBi)

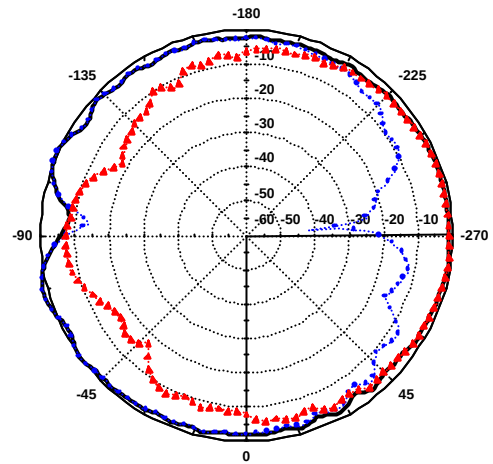


2500 MHz (Max Gain: 0.6dBi)

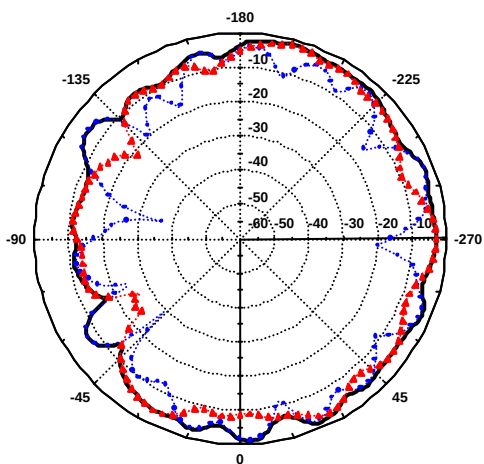
2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
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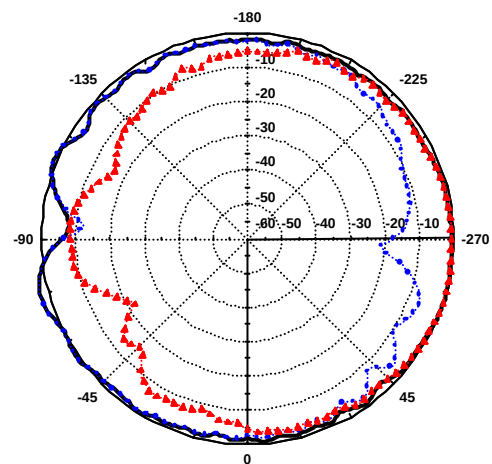
5150 MHz (Max Gain: 1.9dBi)



5150 MHz (Max Gain: 1.5dBi)

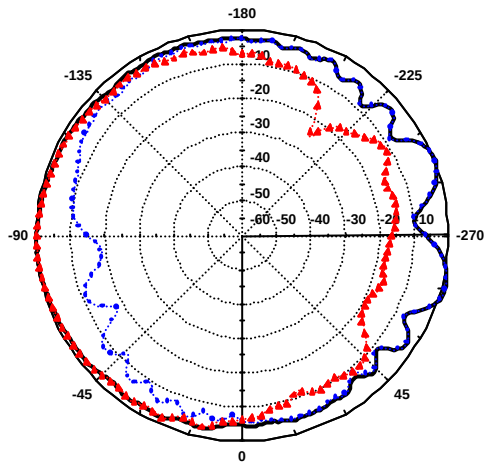


5350 MHz (Max Gain: 2.9dBi)

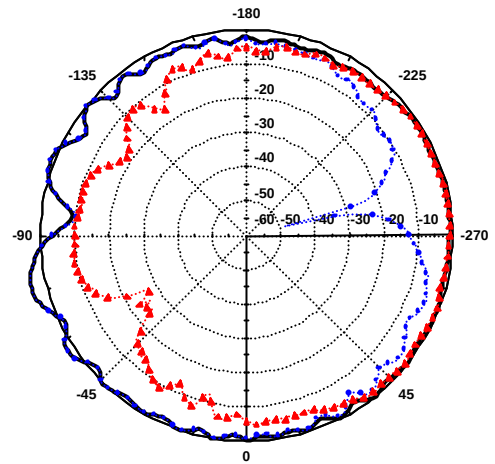


5350 MHz (Max Gain: 2.6dBi)

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
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5725 MHz (Max Gain: 1.2dBi)



5725 MHz (Max Gain: 4.4dBi)

2.45/5GHz M6N Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				M6N Antenna (14.1”&15”) Left Part NO: CAN4313 342 012501B Right Part NO: CAN4313 342 022501B				—	x01	Aug 27, 03	
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DATA SHEET

2.45/5GHz A2H Dual Band Antenna with Cable & Connector for IEEE802.11b/g/a, Bluetooth, UNII

Preliminary product specification
Supersedes data of April 21th 2003

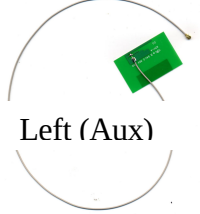
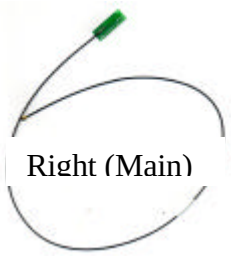
June 16, 2003

2.45/5GHz A2H Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				4313 347 01252 (Right, Main, Black) 4313 347 02252 (Left, White or Gray)				—	1	April 14, 03	
								—	2	April 15, 03	
								—	3	April 16, 03	
BY / 製定者	YM Shen/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	5	PAGE/ 頁	1	SH nr.	—	4	April 21, 03
CHECK				DATE / 日期		June 16, 2003			—	5	June 16, 03

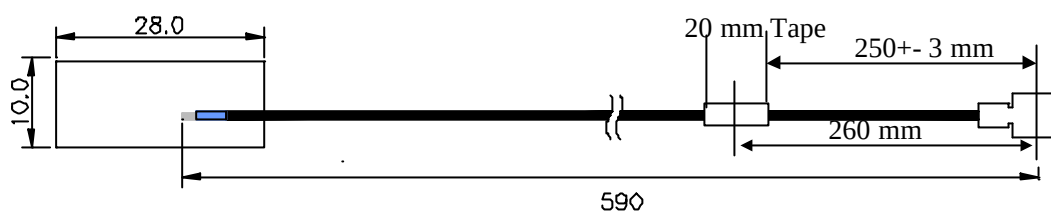
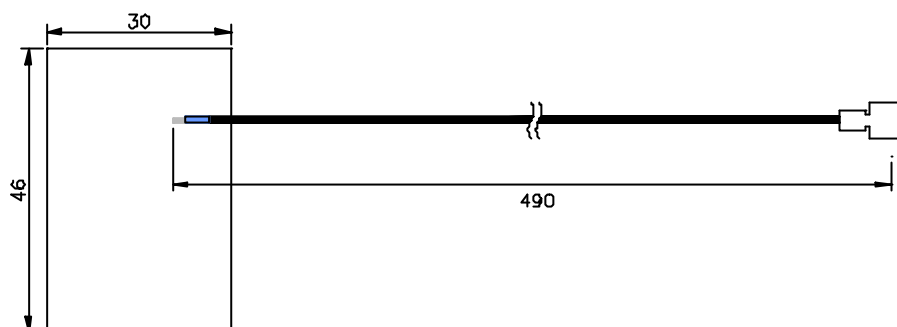
**A2H Dual Band Antenna
FOR WLAN IEEE 802.11b/g/a, Bluetooth, UNII
(With Cable & Mini PCI Connector)**

Product Specification

QUICK REFERENCE DATA

Antenna Patch Dimension	46*30*0.4 mm Left Antenna (Aux, White or Gray) 28*10*0.4 mm Right Antenna (Main, Black)	
Coaxial Cable Length Aux (Left)	490 mm, Color Gray or White	
Coaxial Cable Length Main (Right)	590 mm, Color Black (Black is Main!)	
MiniPCI Connector	Ipex/Hirose or Compatible	
Max Gain	1.3 dBi/2.45GHz; 1.0 dBi/5GHz	
VSWR	2.85 for 2.45GHz band 2.85 for 5.15~5.35 GHz band	
Polarization	Linear	
Impedance	50Ω	
Operating Temperature	-40~90 °C	
Maximum Power	1W	

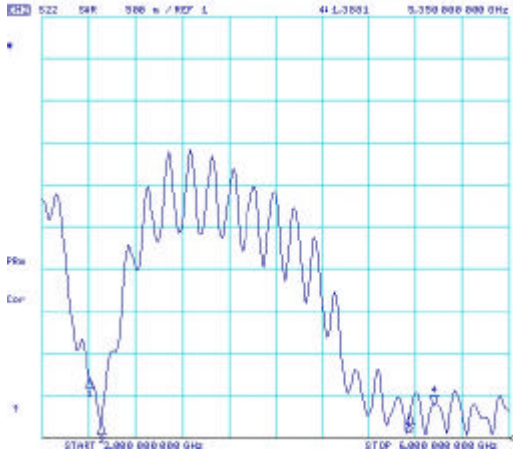
2.45/5GHz A2H Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				4313 347 01252 (Right, Main, Black) 4313 347 02252 (Left, White or Gray)				—	1	April 14, 03	
								—	2	April 15, 03	
								—	3	April 16, 03	
BY / 製定者	YM Shen/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	5	PAGE/ 頁	2	SH nr.	—	4	April 21, 03
CHECK				DATE / 日期		June 16, 2003			—	5	June 16, 03

DIMENSIONAL DATA and Connector/Cable Information (PCB Tolerance ± 0.25 mm)Main Antenna (Right, Cable Color: Black); Cable Length 590 mm ± 6 mm -0 mmAux Antenna (Left, Cable Color: White or Gray); Cable Length 490 mm ± 6 mm -0 mm

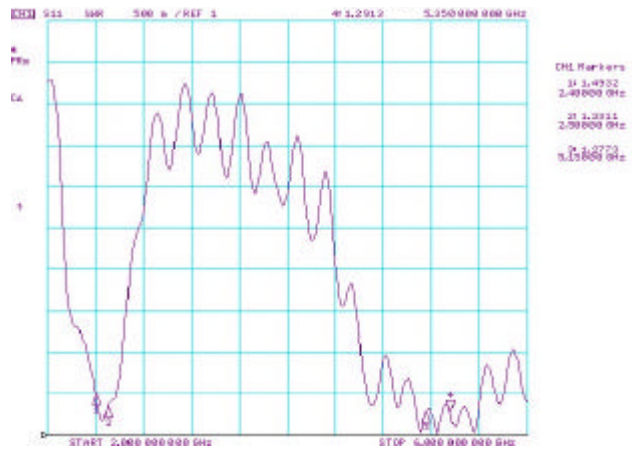
Note: The coax cable will be a 1.13mm diameter cable, single shielded, cable. It's inner conductor of the cable is silver-coated annealed copper wire or silver plated tin-copper alloy, the dielectric is a flouro-plastic (FEP) with a nominal diameter of 0.68mm and a nominal thickness of 0.22mm, the outer conductor is silver plated annealed copper wire with a nominal diameter of 0.93mm, and the jacket is a flouro-plastic (FEP) with an outer diameter of 1.13mm with a nominal thickness of 0.1mm. The cable has a characteristic impedance of 50ohm, an insulation resistance of 1500meg-ohm/km maximum, and no breakdown for a dielectric withstanding voltage of 2000VAC for 1 minute. The insertion loss of a 250mm long cable assembled on both ends shall be no more than 0.85dB at 2.45GHz and no more than -1.5 dB at 6.0GHz.

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								—	3	April 16, 03	
BY / 製定者	YM Shen/ Cliff	SUPER / 原圖編號		TLLSH / 共頁	5	PAGE/ 頁	3	SH nr.	—	4	April 21, 03
CHECK				DATE / 日期		June 16, 2003		—	5	June 16, 03	

Typical VSWR (After Installation in Notebook)



Main Antenna VSWR (Right)



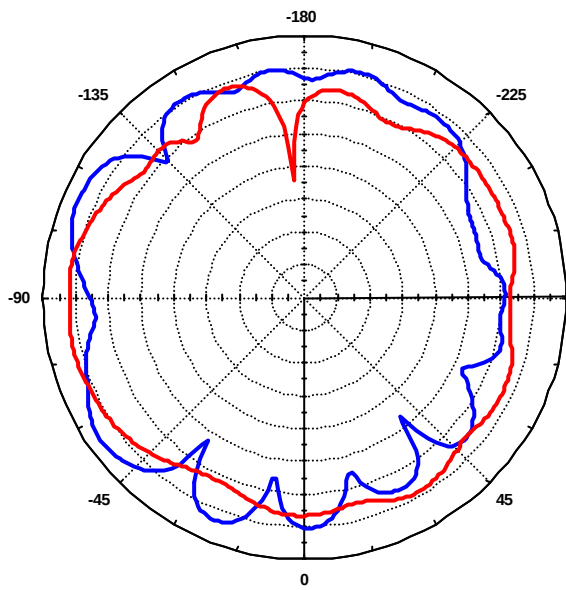
Aux Antenna VSWR (Left)

Note: May vary for different devices

2.45/5GHz A2H Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				4313 347 01252 (Right, Main, Black) 4313 347 02252 (Left, White or Gray)				—	1	April 14, 03	
								—	2	April 15, 03	
								—	3	April 16, 03	
BY / 製定者	YM Shen/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	5	PAGE/ 頁	4	SH nr.	—	4	April 21, 03
CHECK				DATE / 日期		June 16, 2003			—	5	June 16, 03

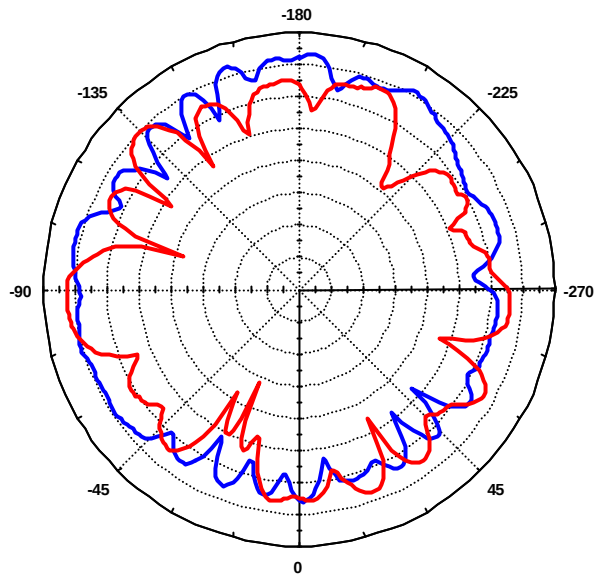
Typical Radiation Pattern Polar Plot

- Main Antenna (Right Antenna: **Red**-Vertical Polarization; **Blue**-Horizontal Polarization)



LCD Open 2450 MHz

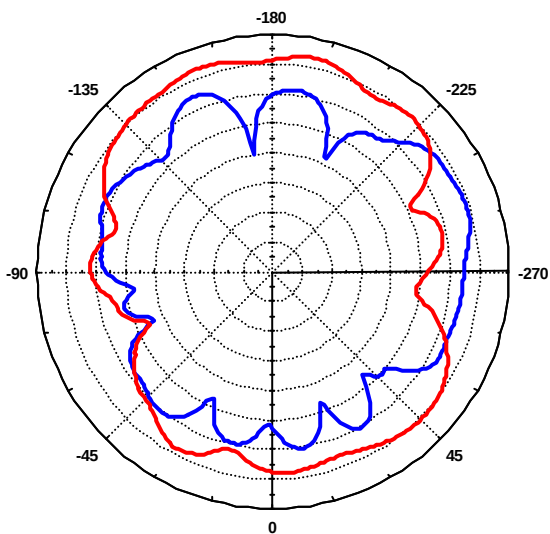
(Total Max. Gain: 1.3dBi; Average Gain: -4.6 dBi)



LCD Open 5250 MHz

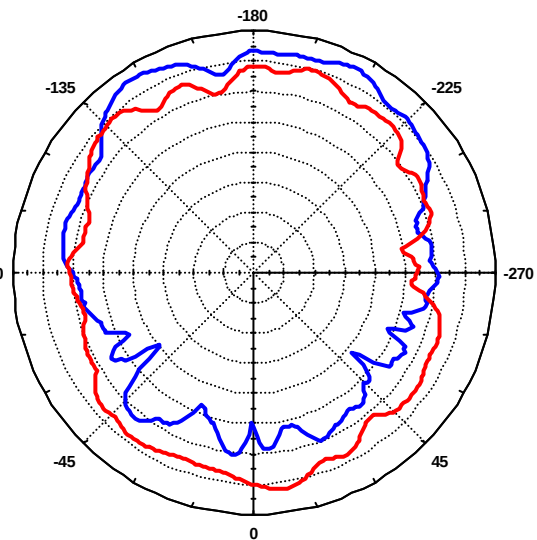
(Total Max. Gain: -1.4dBi; Average Gain: -6.9 dBi)

- Aux Antenna (Left Antenna)



LCD Open 2450 MHz

(Total Max. Gain: -1.7dBi; Average Gain: -6.6 dBi)



LCD Open 5250 MHz

(Total Max. Gain: 1.0dBi; Average Gain: -5.5 dBi)

Note: May vary for different devices

2.45/5GHz A2H Dual Band Antenna with Cable & Connector for IEEE802.11b, 11a, Bluetooth, UNII				4313 347 01252 (Right, Main, Black) 4313 347 02252 (Left, White or Gray)				—	1	April 14, 03	
								—	2	April 15, 03	
								—	3	April 16, 03	
BY / 製定者	YM Shen/ Cliff	SUPER / 原圖編號		TLL.SH / 共頁	5	PAGE/ 頁	5	SH nr.	—	4	April 21, 03
CHECK				DATE / 日期		June 16, 2003		—	5	June 16, 03	

DATA SHEET

2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a & UNII

Product specification: Version x02

Oct 13, 2003

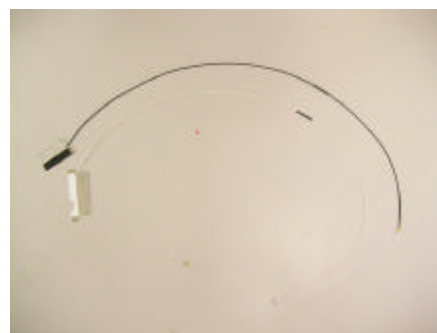
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B				—	x01	Aug 23, 03	
								—	x02	Oct 13, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	1	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	

**S5 Multi Band Antenna
FOR WLAN IEEE 802.11b/11g/11a, UNII
(With Cable & Mini PCI Connector)**

Product Specification

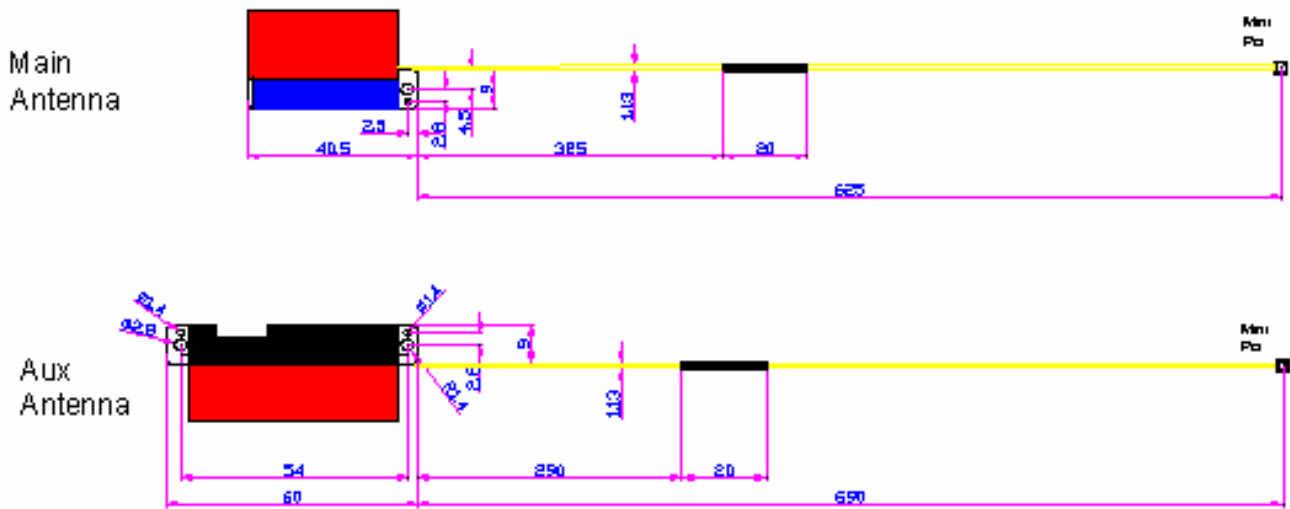
QUICK REFERENCE DATA

Antenna Patch Dimension	40.5*9*0.5 mm Main Antenna 60.0*9*0.5 mm Aux Antenna
Main LCD Cable Length	625 mm, Color Black (CAN4313340012501B)
Aux LCD Cable Length	690 mm, Color White or Grey (CAN4313340022501B)
MiniPCI Connector	Ipex / Hirose or Compatible
Peak Gain	0.0 dBi/2.45GHz Band 1.8 dBi/5GHz Band
VSWR	2.5 for 2.45GHz band 2.85 for 5GHz band
Polarization	Linear
Impedance	50Ω
Operating Temperature	-40~90 °C
Maximum Power	1W



Supplier Address Yageo/Phycomp (Taiwan) Ltd. 16, west 3rd Street, N.E.P.Z Kaohsiung, 811 Taiwan, R.O.C.
Yageo/Phycomp Electronics (China) Co, Ltd No. 10, Zhu Yuan Road,
Suzhou New District, Suzhou, PRC

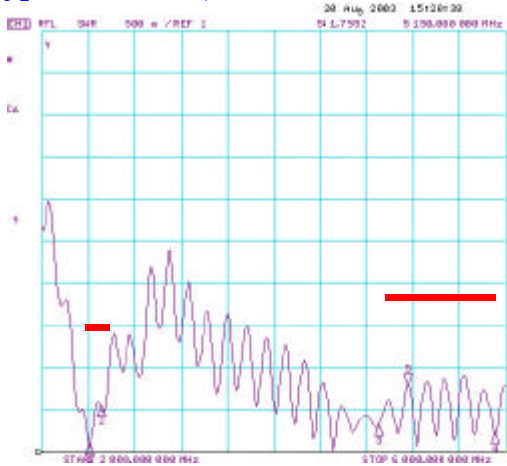
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B					—	x01	Aug 23, 03
									—	x02	Oct 13, 03
									—	3	
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	2	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	

DIMENSIONAL DATA and Connector/Cable Information (Tolerance: +/- 0.25 mm)**- Antenna Body (Main and Aux, Copper Metal Material):**

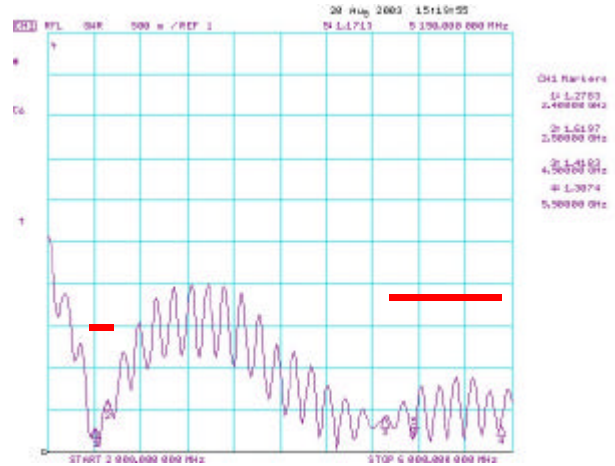
Note: The coaxial cable will be a 1.13mm diameter cable, single shielded, cable. It's inner conductor of the cable is silver-coated annealed copper wire or tin-copper plated alloy, the dielectric is a flouro-plastic (FEP) with a nominal diameter of 0.68mm and a nominal thickness of 0.22mm, the outer conductor is silver plated annealed copper wire with a nominal diameter of 0.93mm, and the jacket is a flouro-plastic (FEP) with an outer diameter of 1.13mm with a nominal thickness of 0.1mm. The cable has a characteristic impedance of 50ohm, an insulation resistance of 1500meg-ohm/km maximum, and no breakdown for a dielectric withstanding voltage of 2000VAC for 1 minute. The insertion loss of a 250mm long cable assembled on both ends shall be no more than 0.85dB at 2.45GHz and no more than -1.5dB at 6.0GHz.

2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B				—	x01	Aug 23, 03	
								—	x02	Oct 13, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.S/H/ 共頁	8	PAGE/ 頁	3	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	

Typical VSWR (After Installation in Notebook)



Main Antenna

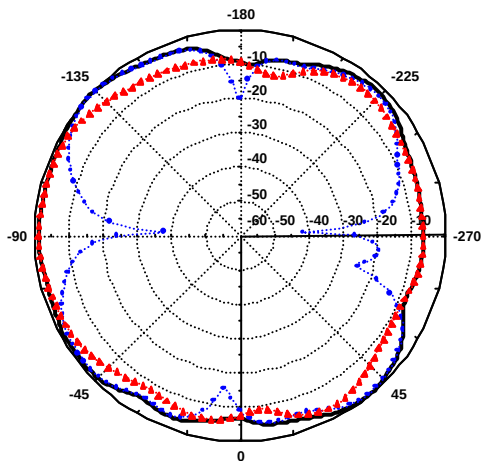


Aux Antenna

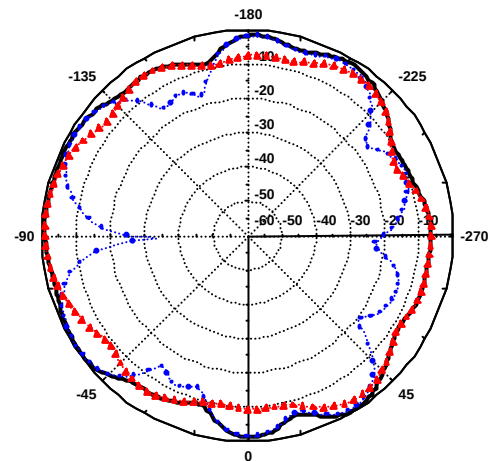
Note: May vary for different devices

Typical Radiation Pattern Polar Plot (Based on After Antenna Installation)

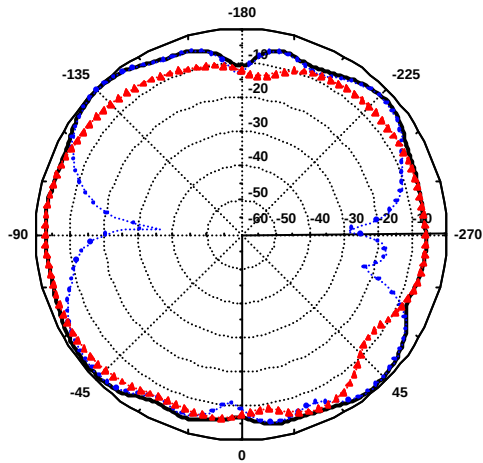
- Main



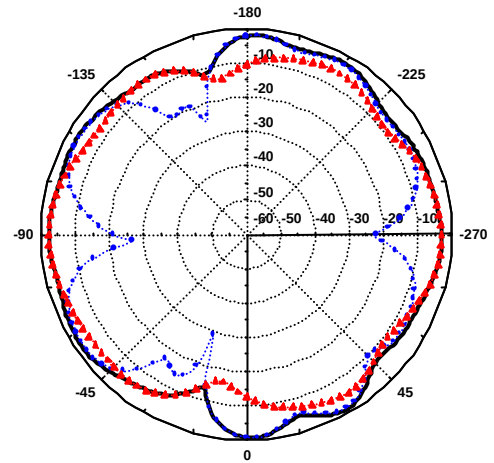
-Aux Antenna



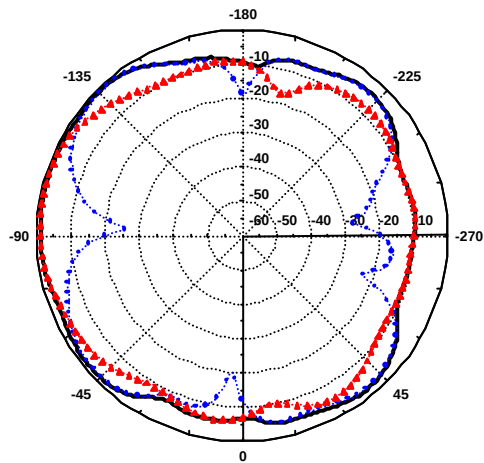
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B					—	x01	Aug 23, 03
									—	x02	Oct 13, 03
									—	3	
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	4	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	



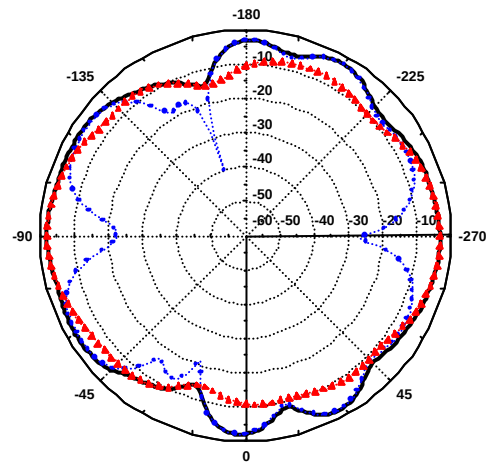
2450 MHz (Max Gain: -0.4dBi)



2450 MHz (Max Gain: -0.5dBi)

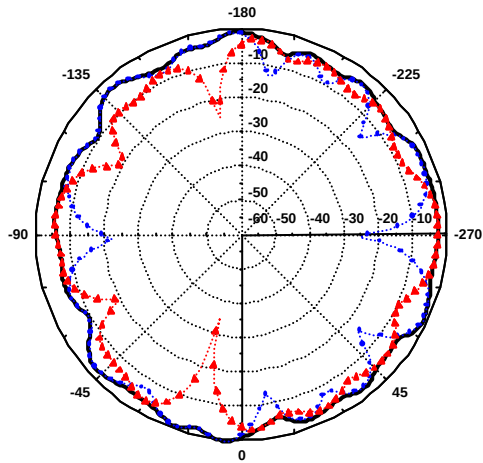


2500 MHz (Max Gain: -0.7dBi)

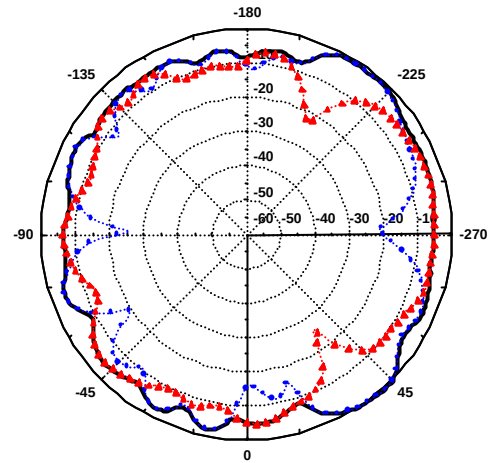


2500 MHz (Max Gain: -1.9dBi)

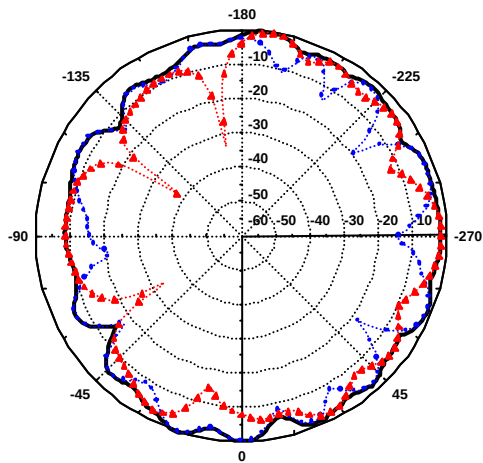
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B					—	x01	Aug 23, 03
									—	x02	Oct 13, 03
									—	3	
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	5	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	



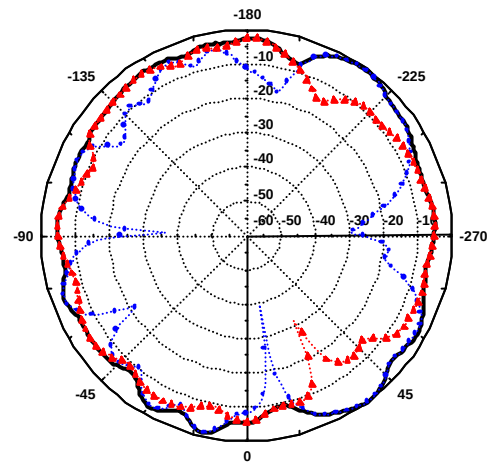
4900 MHz (Max Gain: 0.6dBi)



4900 MHz (Max Gain: 0.7dBi)

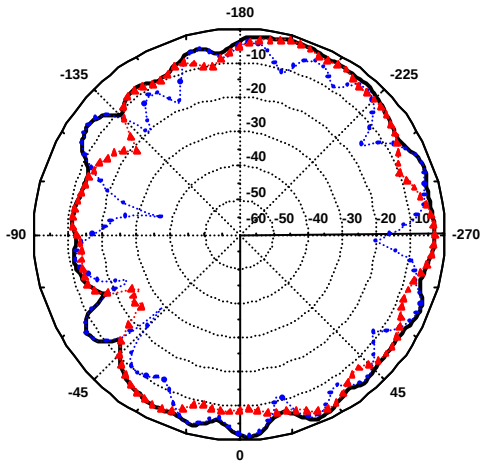


5150 MHz (Max Gain: 0.2dBi)

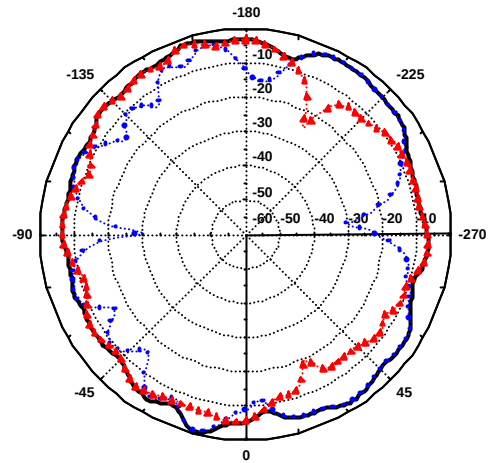


5150 MHz (Max Gain: 0.0dBi)

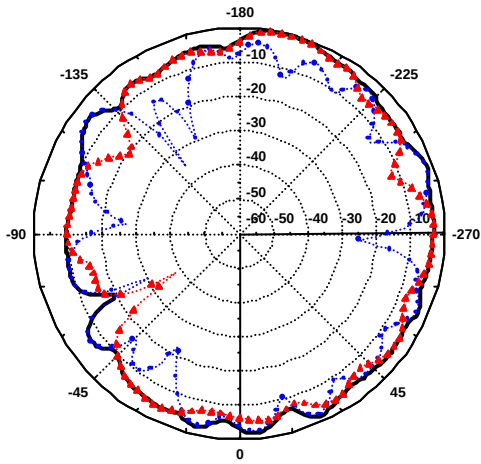
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B				—	x01	Aug 23, 03	
								—	x02	Oct 13, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	6	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	



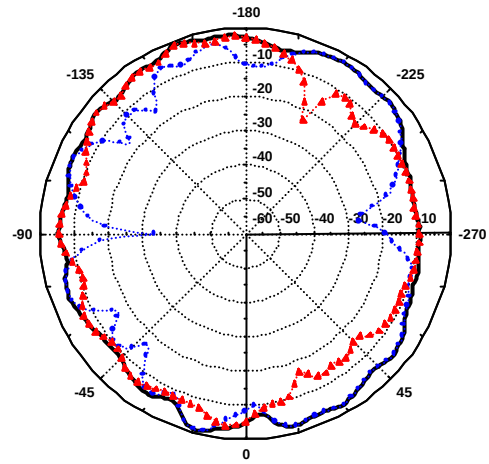
5350 MHz (Max Gain: -0.9dBi)



5350 MHz (Max Gain: -0.5dBi)

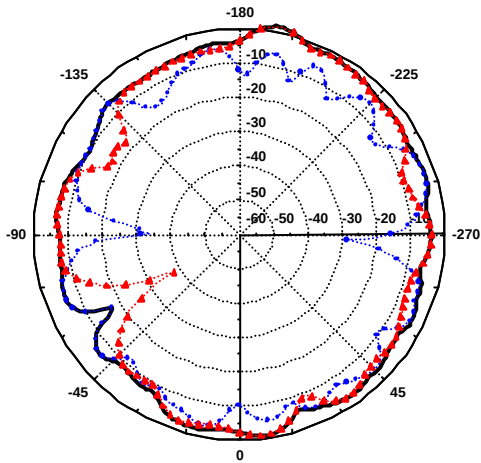


5470 MHz (Max Gain: -0.1dBi)

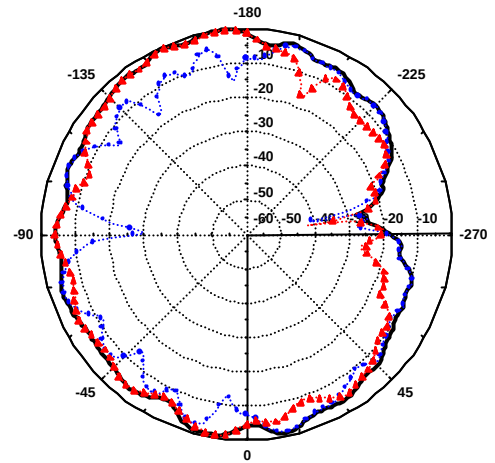


5470 MHz (Max Gain: -0.7dBi)

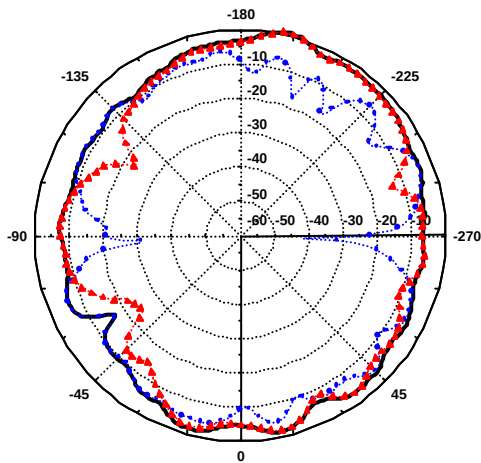
2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B				—	x01	Aug 23, 03	
								—	x02	Oct 13, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	7	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	



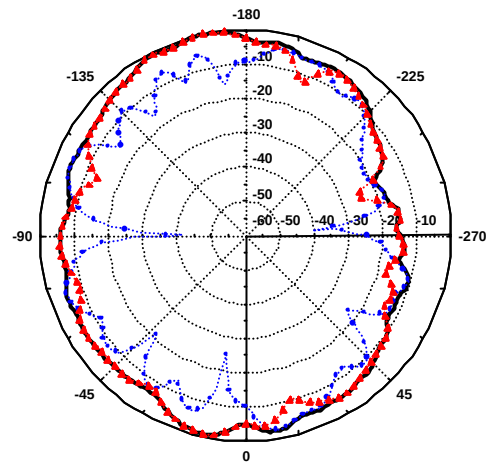
5725 MHz (Max Gain: 1.8dBi)



5725 MHz (Max Gain: 0.1dBi)



5900 MHz (Max Gain: 0.9dBi)



5900 MHz (Max Gain: 0.2dBi)

2.45/5GHz S5 Multi Band Antenna with Cable & Connector for IEEE802.11b, 11g, 11a, UNII				S5 Antenna Main Part NO: CAN4313 340 012501B Aux Part NO: CAN4313 340 022501B				—	x01	Aug 23, 03	
								—	x02	Oct 13, 03	
								—	3		
BY / 製定者	Cliff/Howard	SUPER / 原圖編號		TLL.SH/ 共頁	8	PAGE/ 頁	8	SH nr.	—	4	
CHECK				DATE / 日期		Oct. 13, 2003			—	5	