

Model No.: OA2410FO 2.4GHz 10dBi Outdoor /Indoor Omni Antenna

The Outdoor/Indoor 10 dBi Omni antenna emits a powerful amplified signal over a 360 degree radius., delivering a strong multi-direction signal from an Access Point or a Bridge . It is the most effective when placed at the top of buildings or in the center of large rooms

Features

- High gain: 10 dBi
- Increase your Wireless Network Strength
- **For Wireless-b/g/n Application**
- Omni-Directional , best for Point-To-Multi-Point Bridging
- **Better Height Coverage (E-Plan 30°) for Hot Spot application**
- Weatherproof & Corrosion Resistant for Indoor /Outdoor



Electrical Specifications

Antenna Type	2.4GHz 10 dBi Indoor Omni Antenna
Frequency Range	2.4 ~ 2.5GHz
Network Specification	IEEE 802.11b , IEEE 802.11g , IEEE802.11n Wireless 2.4Ghz Network
Gain	10 dBi
V.S.W.R	< 2
Beam Width-H Plane	360°
Beam Width-E Plane	30°
Polarization	Vertical (Linear)
Input Impedance	50 Ohms
Connector	Reverse N Type
Operation Temperature	-20°C - + 70°C
Storage Temperature	-30°C - +85°C
Humidity	95% maximum (non-condensing)
Waterproof	IP66

Package Content

High-Gain Wireless Omni Antenna with Cable and Reverse N type Connector	1 Set
Quick Installation Guide	1 pc

CCS WUGU Antenna Pattern

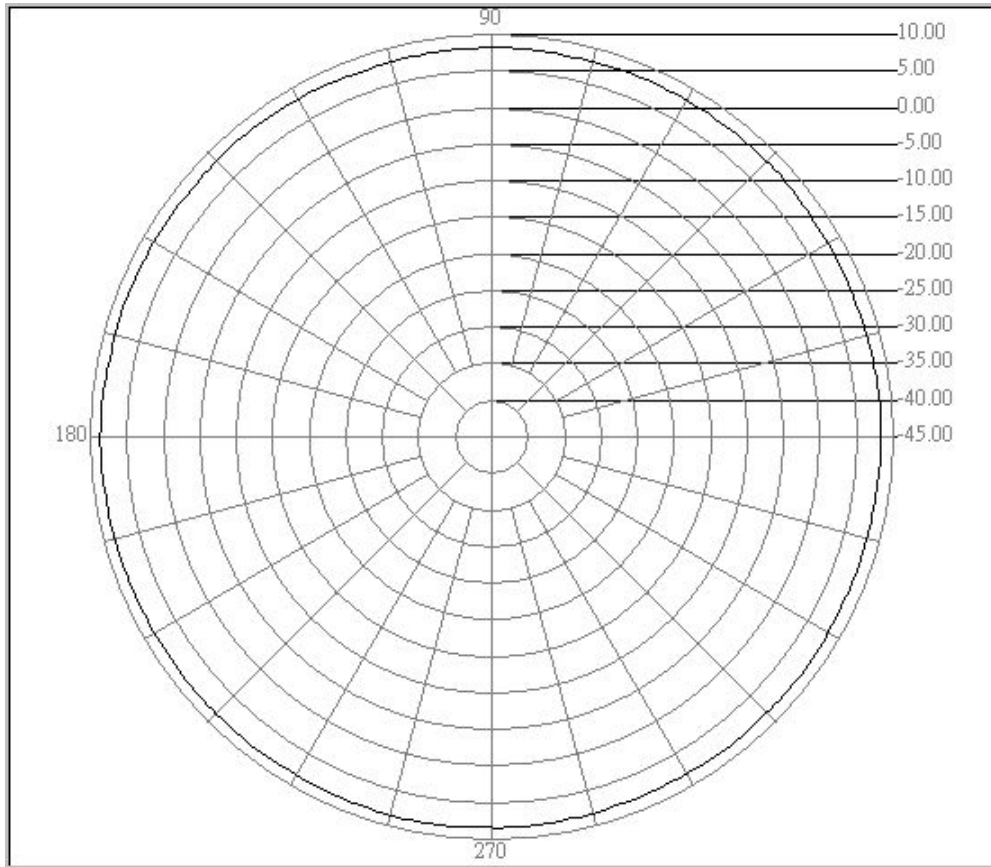
Job No.:3-30-100

Date:2005/3/14

Time:下午 06:57

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : H Plane

Max gain(dBi):8.66

Min gain(dBi):8.00

Avg gain(dBi):8.33

OA2410FO T3

CCS WUGU Antenna Pattern

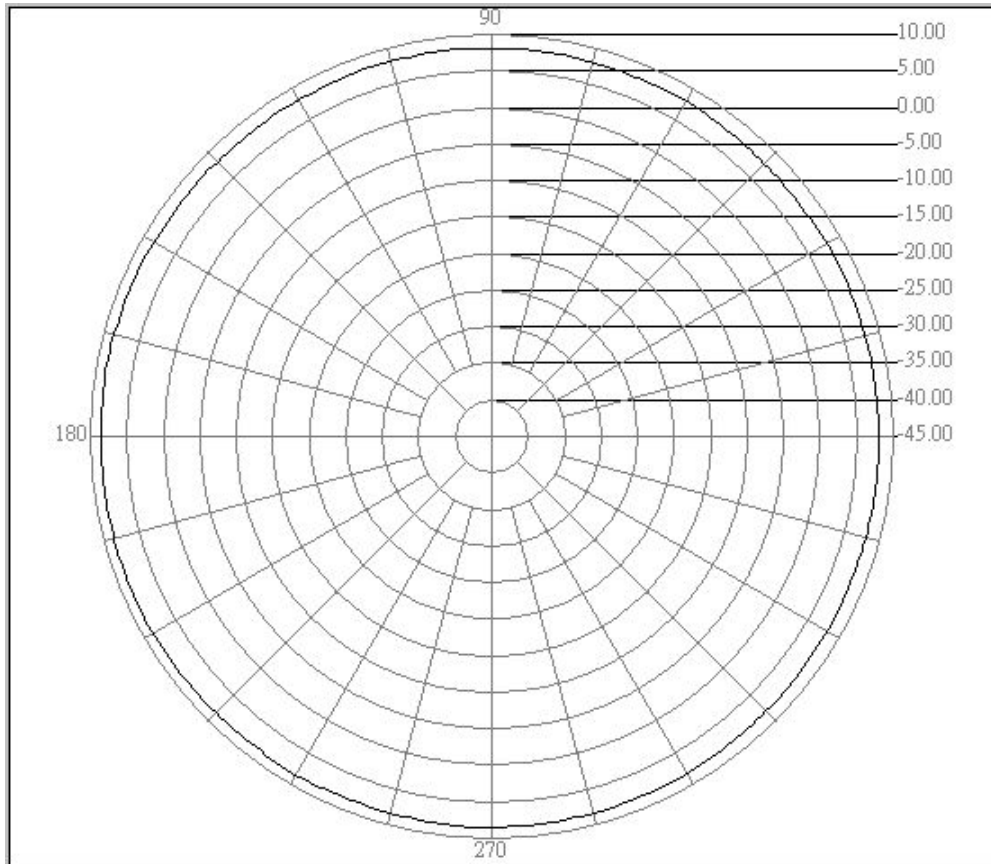
Job No.:3-30-99

Date:2005/3/14

Time:下午 06:55

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : H Plane

Max gain(dBi):8.69

Min gain(dBi):7.79

Avg gain(dBi):8.26

OA2410FO T3

CCS WUGU Antenna Pattern

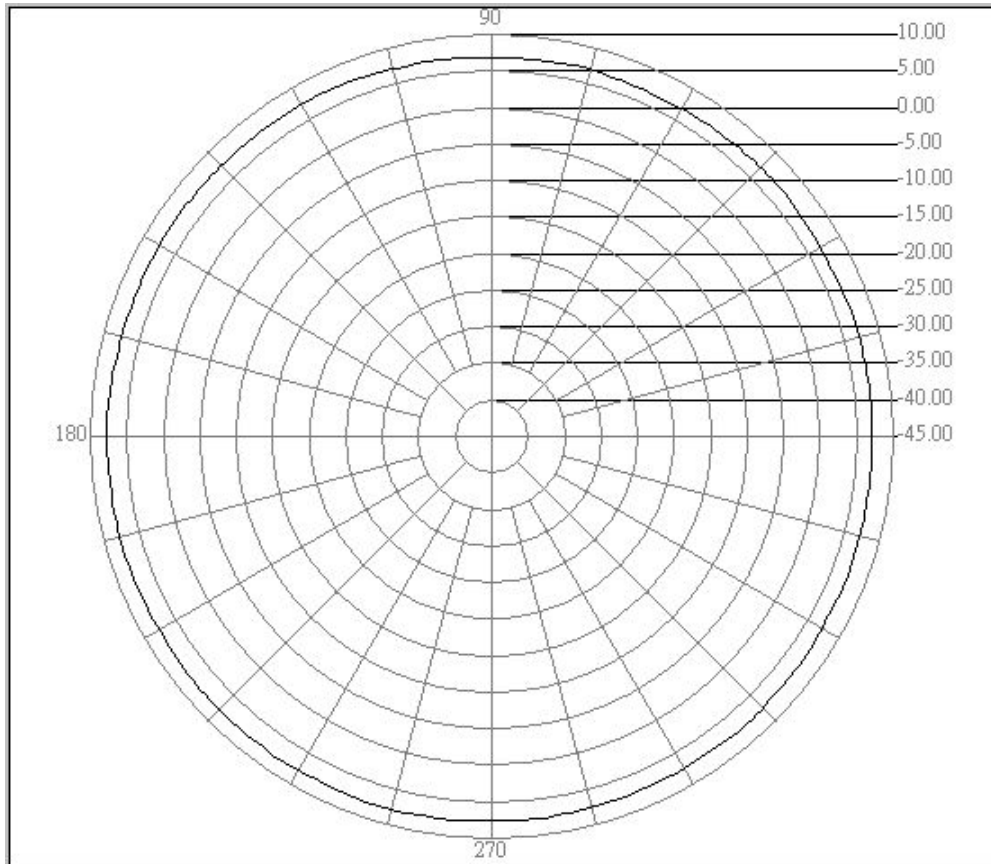
Job No.:3-30-101

Date:2005/3/14

Time:下午 06:59

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : H Plane

Max gain(dBi):7.93

Min gain(dBi):6.65

Avg gain(dBi):7.40

OA2410FO T3

CCS WUGU Antenna Pattern

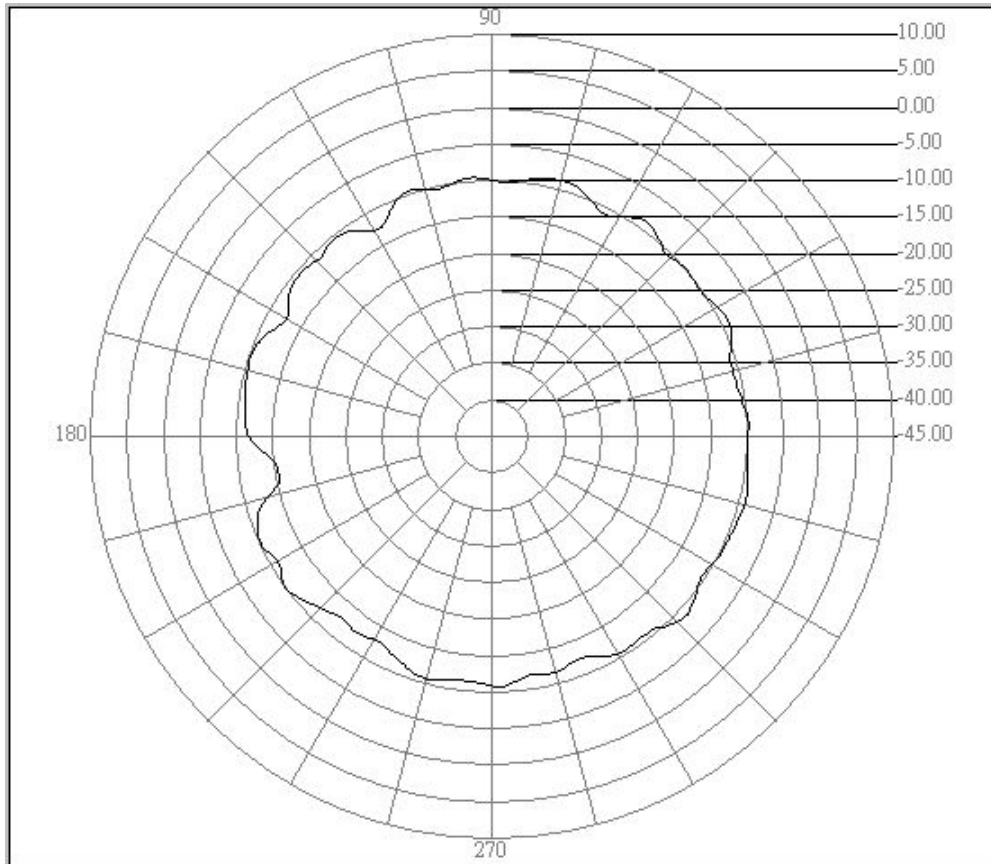
Job No.:3-30-103

Date:2005/3/14

Time:下午 07:04

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : E Plane

Max gain(dBi):-8.77

Min gain(dBi):-15.45

Avg gain(dBi):-10.55

OA2410FO T3

CCS WUGU Antenna Pattern

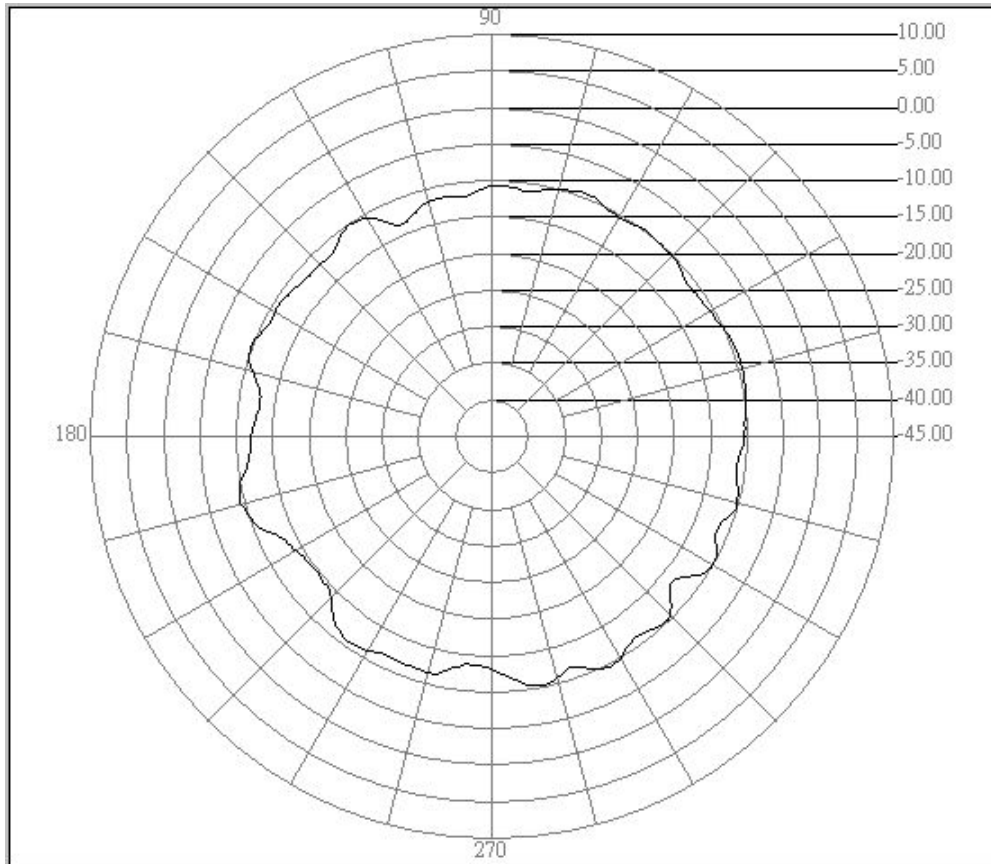
Job No.:3-30-102

Date:2005/3/14

Time:下午 07:02

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : E Plane

Max gain(dBi):-9.36

Min gain(dBi):-14.74

Avg gain(dBi):-11.02

OA2410FO T3

CCS WUGU Antenna Pattern

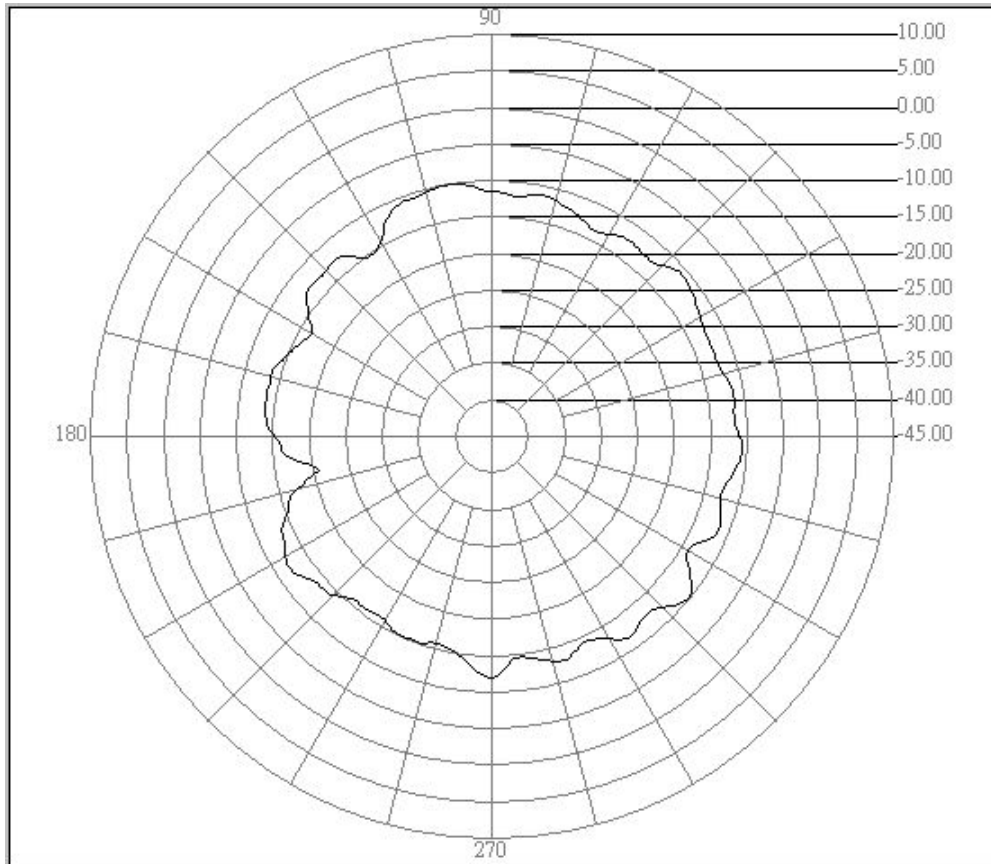
Job No.:3-30-104

Date:2005/3/14

Time:下午 07:06

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : E Plane

Max gain(dBi):-10.07

Min gain(dBi):-20.87

Avg gain(dBi):-12.79

OA2410FO T3

CCS WUGU Antenna Pattern

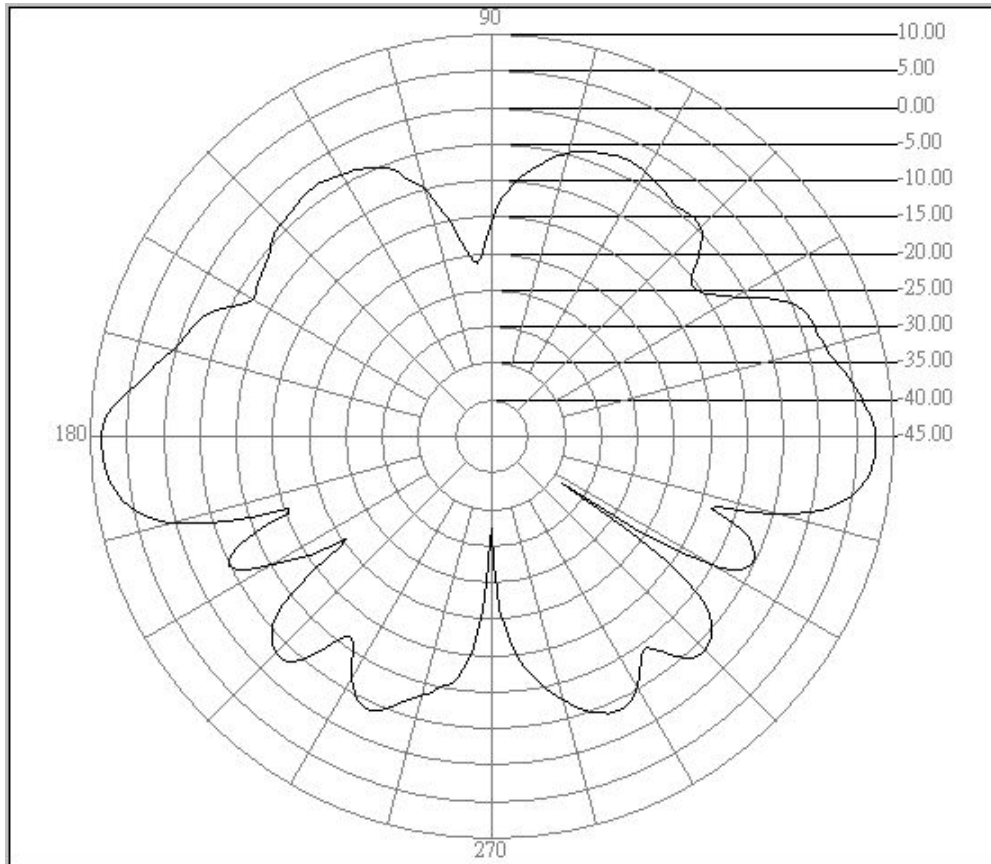
Job No.:3-30-106

Date:2005/3/14

Time:下午 07:14

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : E Plane

Max gain(dBi):8.50

Min gain(dBi):-33.34

Avg gain(dBi):-0.38

OA2410FO T3

E PLANE

CCS WUGU Antenna Pattern

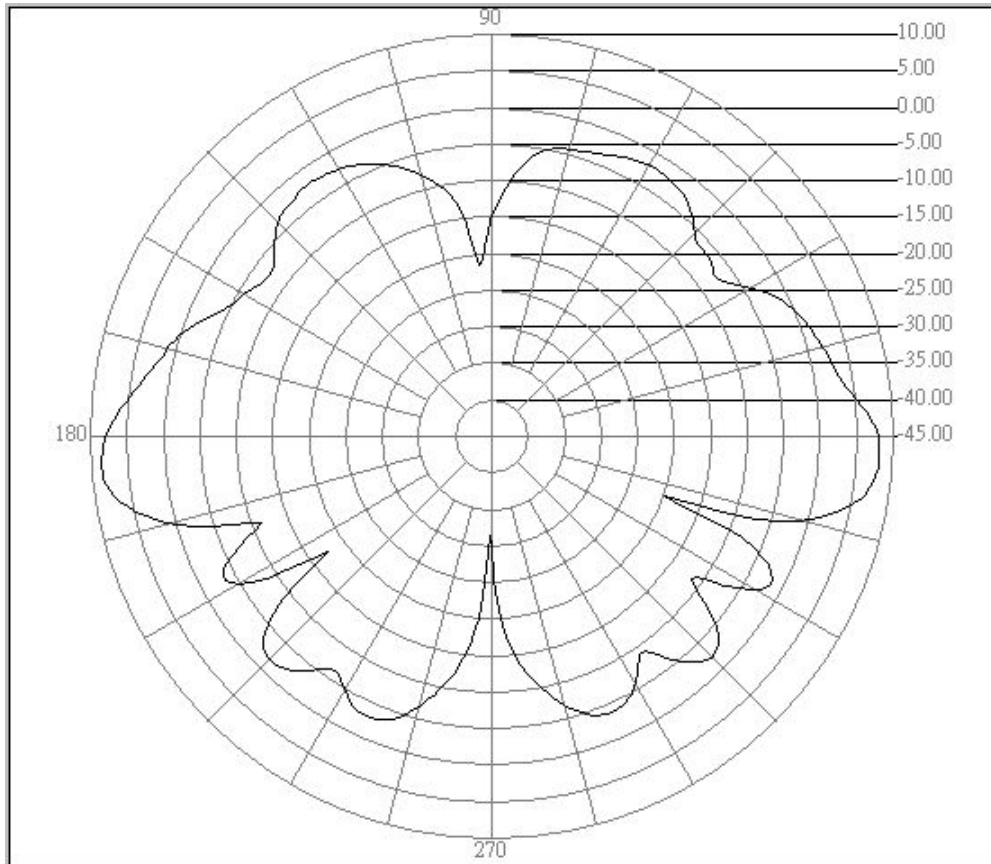
Job No.:3-30-105

Date:2005/3/14

Time:下午 07:12

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : E Plane

Max gain(dBi):8.62

Min gain(dBi):-31.54

Avg gain(dBi):-0.08

OA2410FO T3

E PLANE

CCS WUGU Antenna Pattern

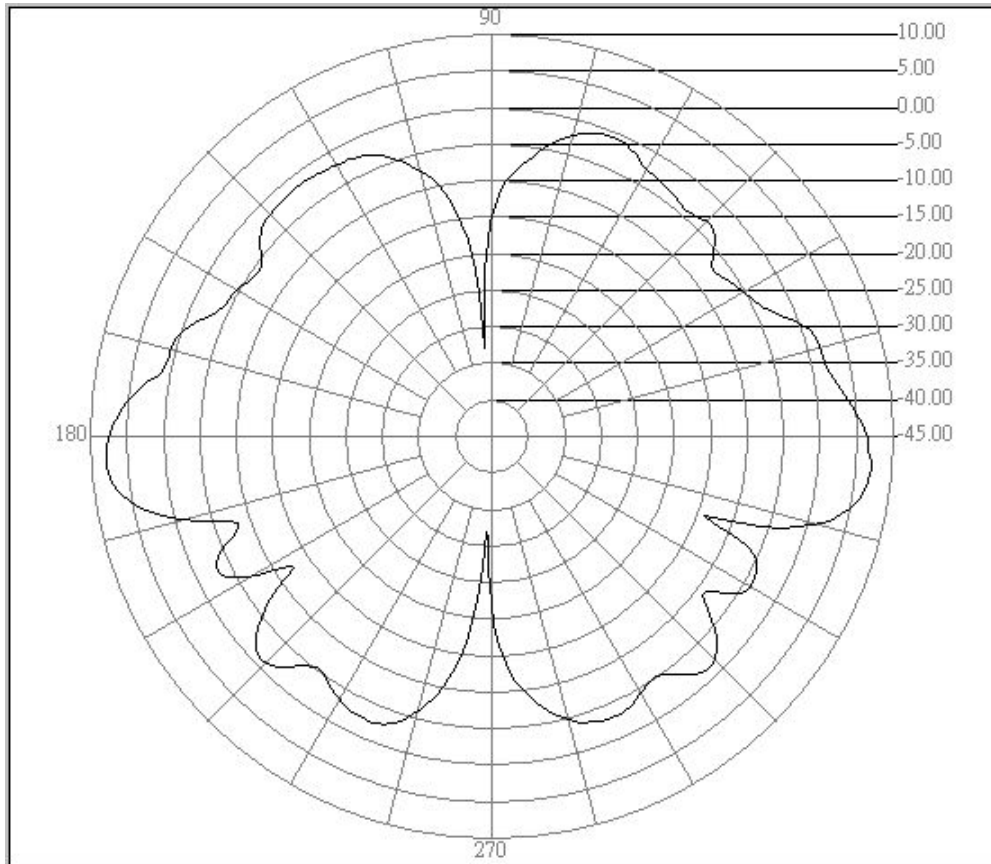
Job No.:3-30-107

Date:2005/3/14

Time:下午 07:16

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : E Plane

Max gain(dBi):7.93

Min gain(dBi):-32.99

Avg gain(dBi):-0.41

OA2410FO T3

E PLANE

CCS WUGU Antenna Pattern

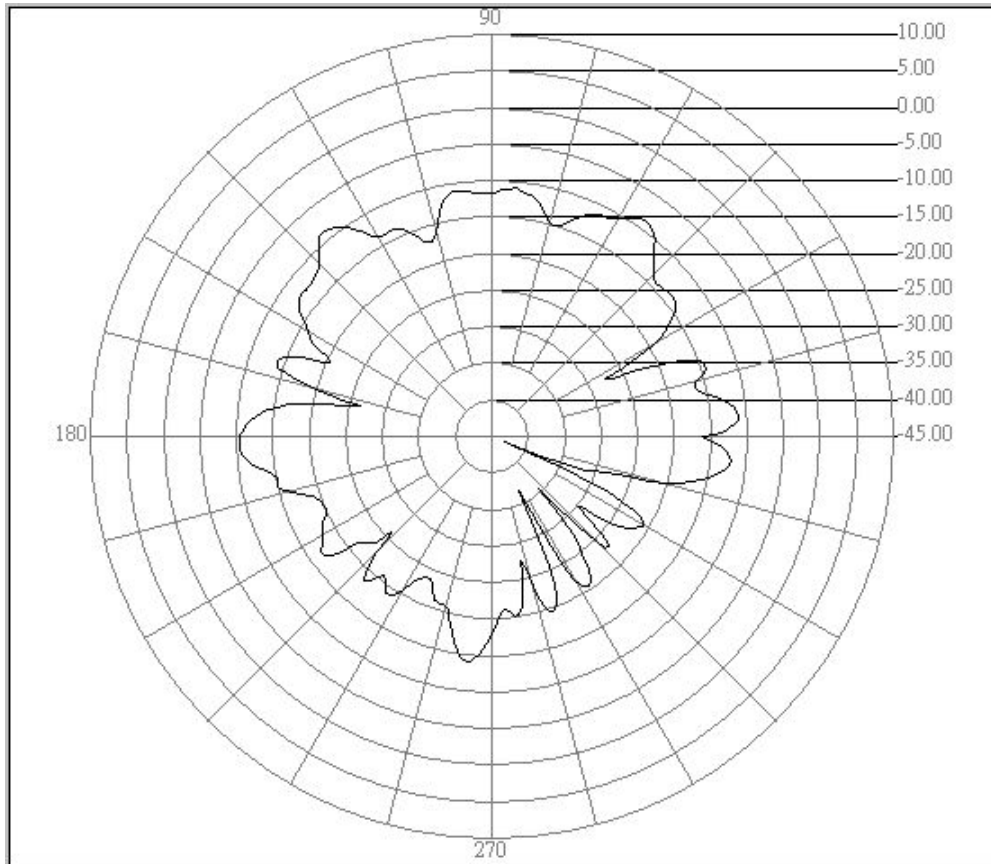
Job No.:3-30-109

Date:2005/3/14

Time:下午 07:23

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : H Plane

Max gain(dBi):-8.76

Min gain(dBi):-43.13

Avg gain(dBi):-14.66

OA2410FO T3

E PLANE

CCS WUGU Antenna Pattern

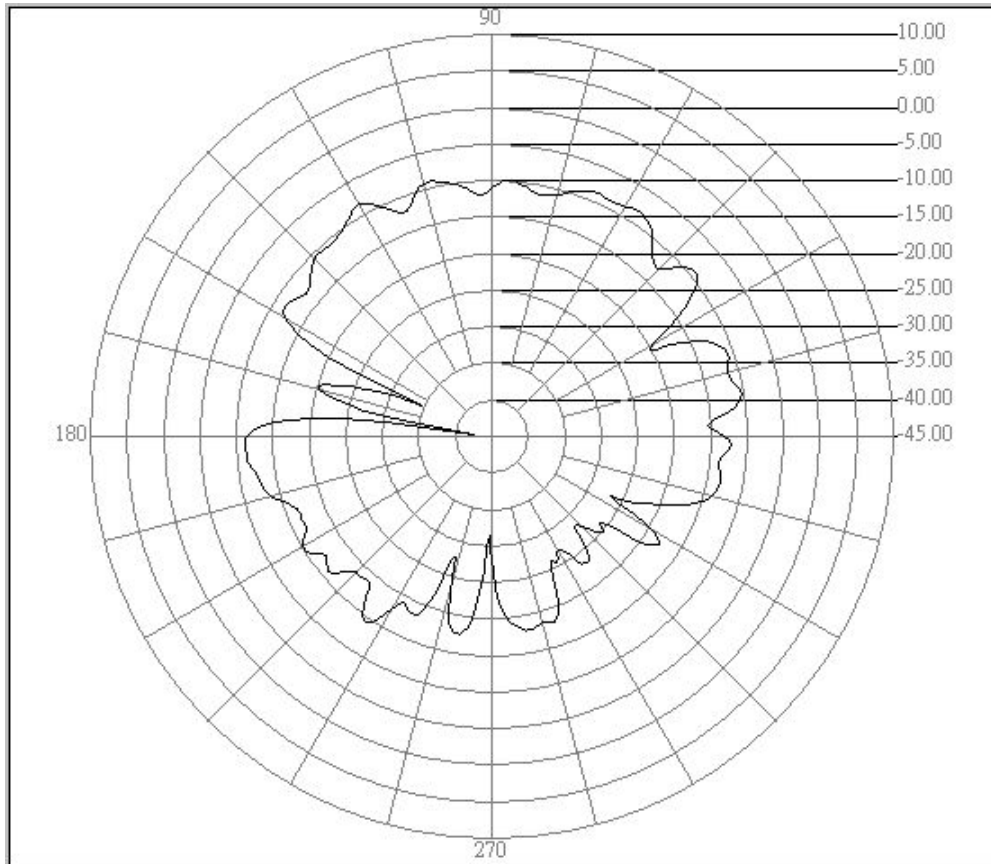
Job No.:3-30-108

Date:2005/3/14

Time:下午 07:21

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : H Plane

Max gain(dBi):-8.26

Min gain(dBi):-42.60

Avg gain(dBi):-13.25

OA2410FO T3

E PLANE

CCS WUGU Antenna Pattern

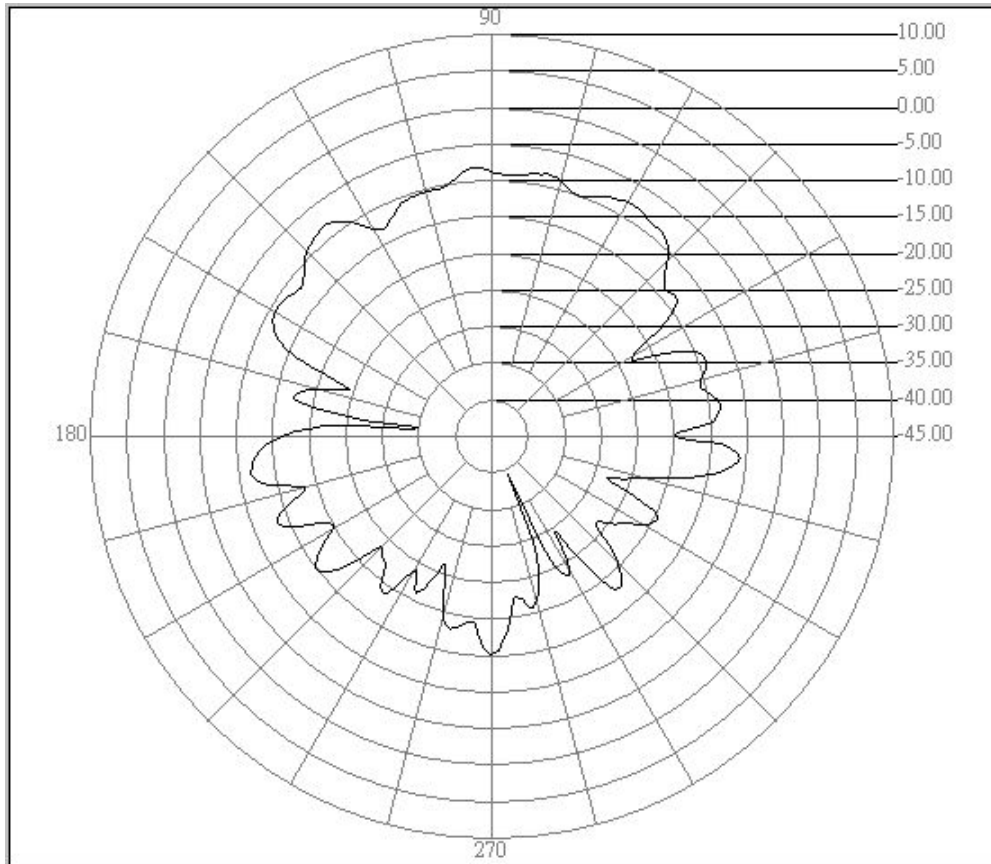
Job No.:3-30-110

Date:2005/3/14

Time:下午 07:25

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : H Plane

Max gain(dBi):-7.96

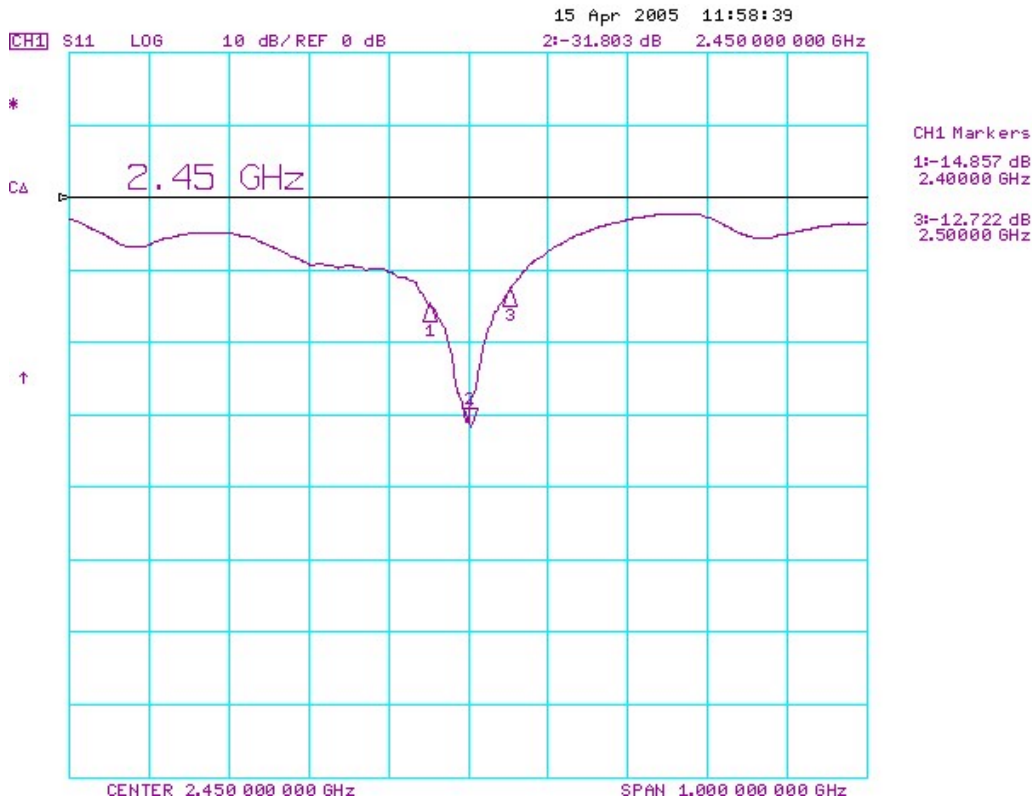
Min gain(dBi):-39.47

Avg gain(dBi):-13.27

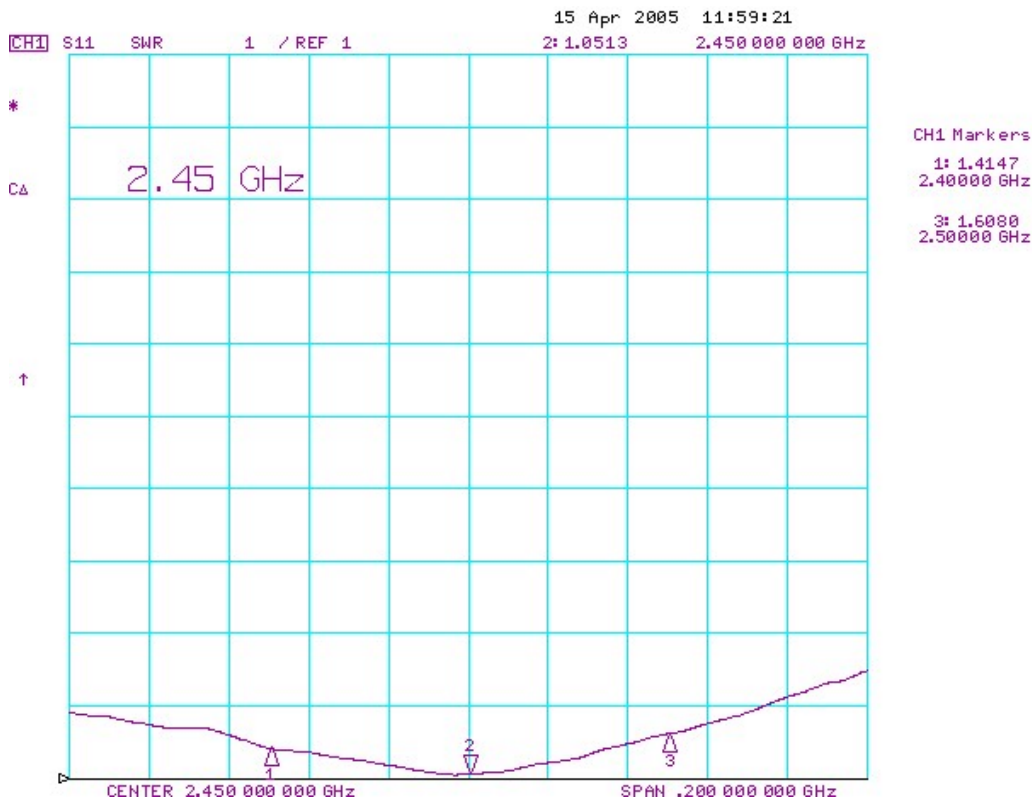
OA2410FO T3

E PLANE

S11 Test :



VSWR Test :



Model No.: OA2414P

2.4GHz 14 dBi Patch Directional Antenna



The 14 dBi Outdoor Directional Antenna amplifies your wireless signal in a concentrated direction. The directional design of antenna creates a 30 degree emission of your highly amplified wireless signal that extend the coverage of a wireless local area network .

Features

- High gain: 14 dBi
- Increase your Wireless Network Strength
- For Wireless-b/g/n Application
- 60 degree emission of wireless signal, best for Point-To-Point Bridging
- Weatherproof & Corrosion Resistant for Indoor /Outdoor

Electrical Specifications	
Antenna Type	2.4GHz 14dBi Outdoor Patch Antenna
Frequency Range	2.4 ~ 2.4835GHz
Network Specification	IEEE 802.11b , IEEE 802.11g, IEEE802.11n , Wireless 2.4Ghz Network
Gain	14 dBi
V.S.W.R	< 1.5
Beam Width-H Plane	60 °(Vertical)
Beam Width-E Plane	30° (Horizontal)
Polarization	Vertical (Linear)
Input Impedance	50 Ohms
Connector	Reverse N Type
Operation Temperature	-20°C - + 70°C
Storage Temperature	-30°C - +85°C
Humidity	95% maximum (non-condensing)



LanReady Technologies Inc.

4F., No.337, Sinhu 2nd Rd., Neihu District, Taipei City 114, Taiwan

Tel: 886-2-2796-8188 Fax: 886-2-2796-8158 <http://www.lanready.com>

Network on Demand Network on Demand Network on Demand Network on Demand Network on Demand

System Requirements

One Wireless Device with an external Antenna connector

Connector Type : N Type Connector

Package Content

Hi-Gain Wireless Directional Antenna with Cable and Reverse N Type Connector	1 set
Wall Mounting	1 set
Quick Installation Guide	1 pc

CCS WUGU Antenna Pattern

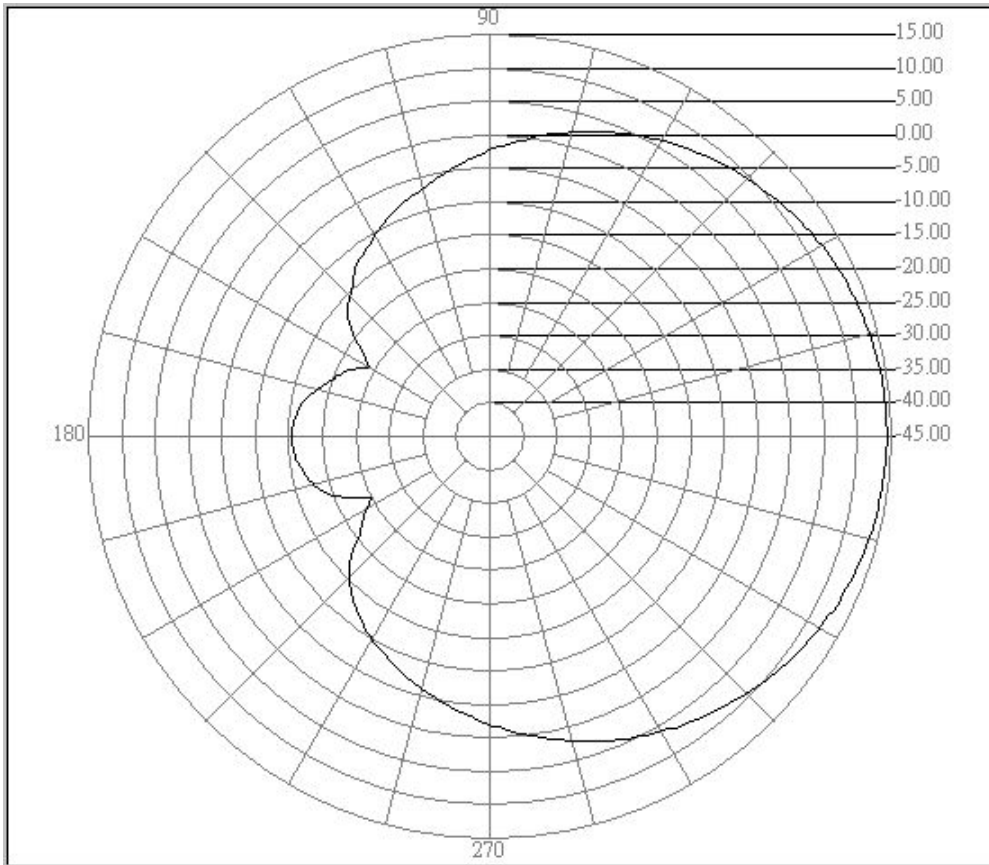
Job No.:3-30-26

Date:2005/3/14

Time:下午 02:00

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : H Plane

Max gain(dBi):14.36

Min gain(dBi):-24.99

Avg gain(dBi):7.63

OA2414P

CCS WUGU Antenna Pattern

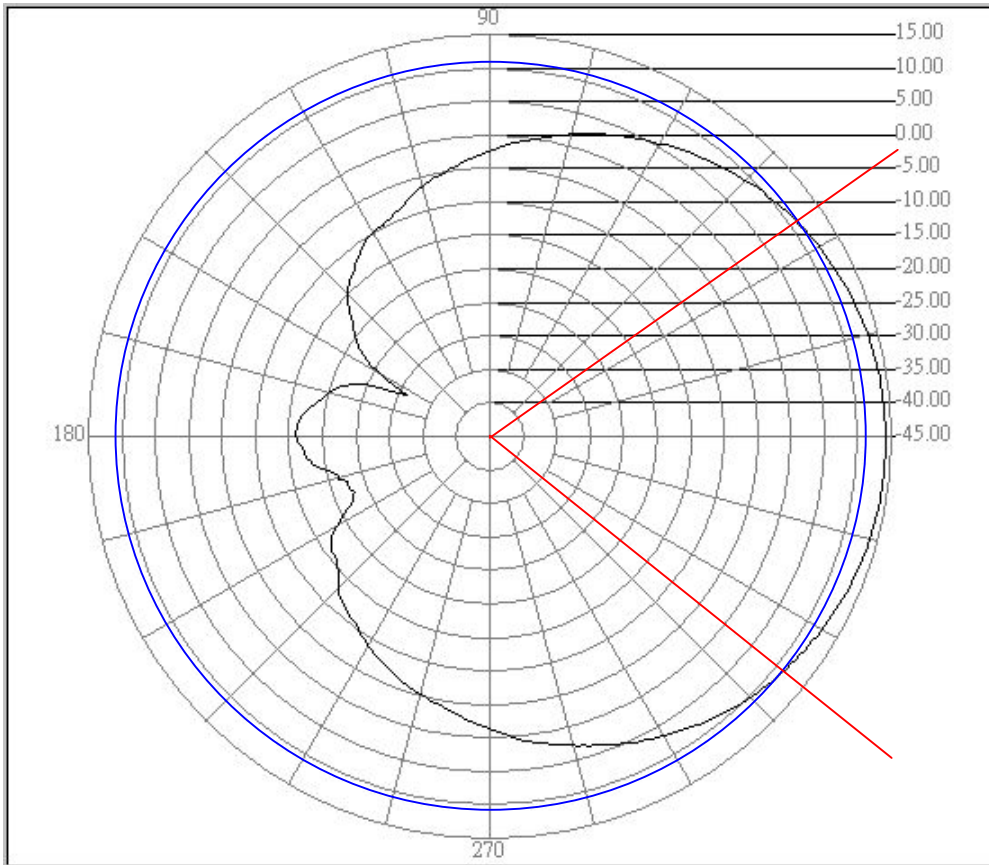
Job No.:3-30-25

Date:2005/3/14

Time:下午 01:58

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : H Plane

Max gain(dBi):14.15

Min gain(dBi):-31.21

Avg gain(dBi):7.61

OA2414P

CCS WUGU Antenna Pattern

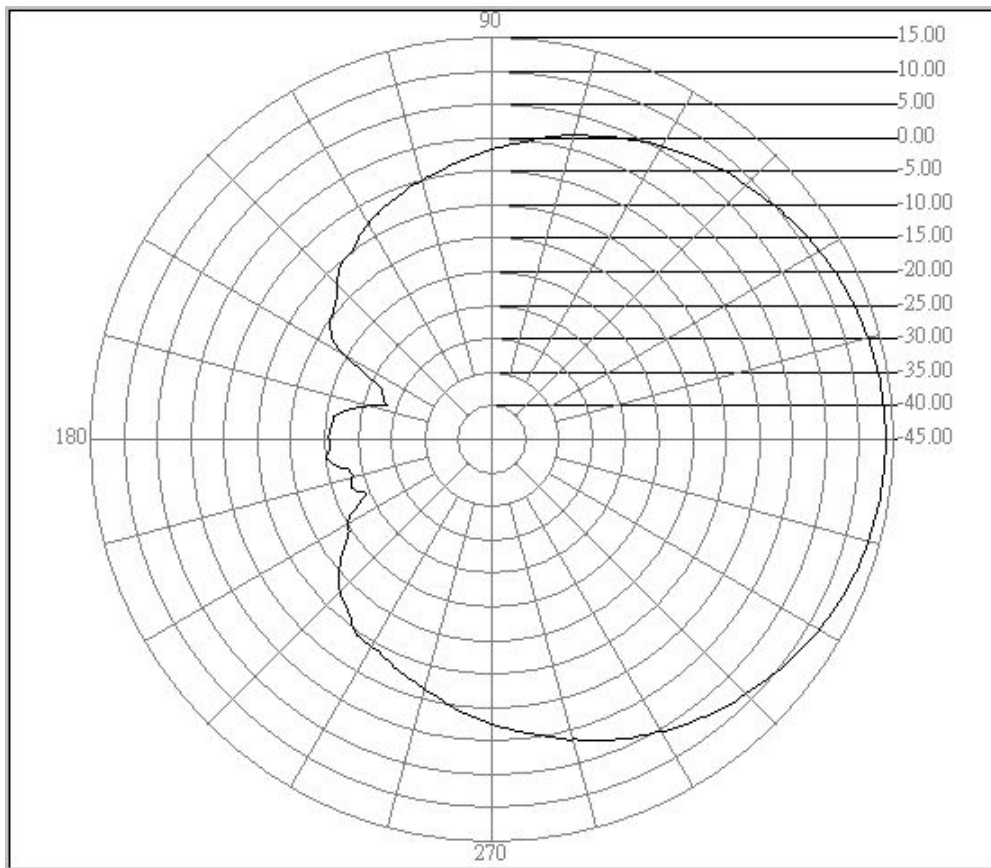
Job No.:3-30-27

Date:2005/3/14

Time:下午 02:02

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : H Plane

Max gain(dBi):13.89

Min gain(dBi):-28.50

Avg gain(dBi):7.13

OA2414P



CCS WUGU Antenna Pattern

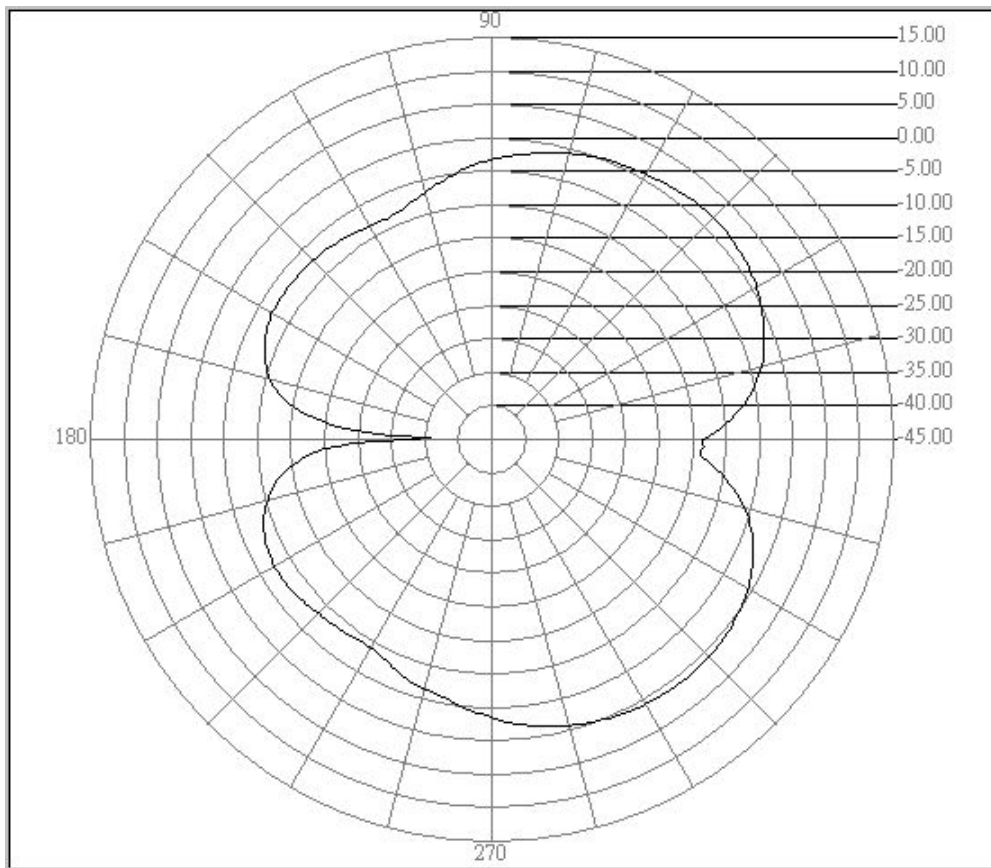
Job No.:3-30-29

Date:2005/3/14

Time:下午 02:08

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : E Plane

Max gain(dBi):1.80

Min gain(dBi):-35.97

Avg gain(dBi):-3.00

OA2414P



CCS WUGU Antenna Pattern

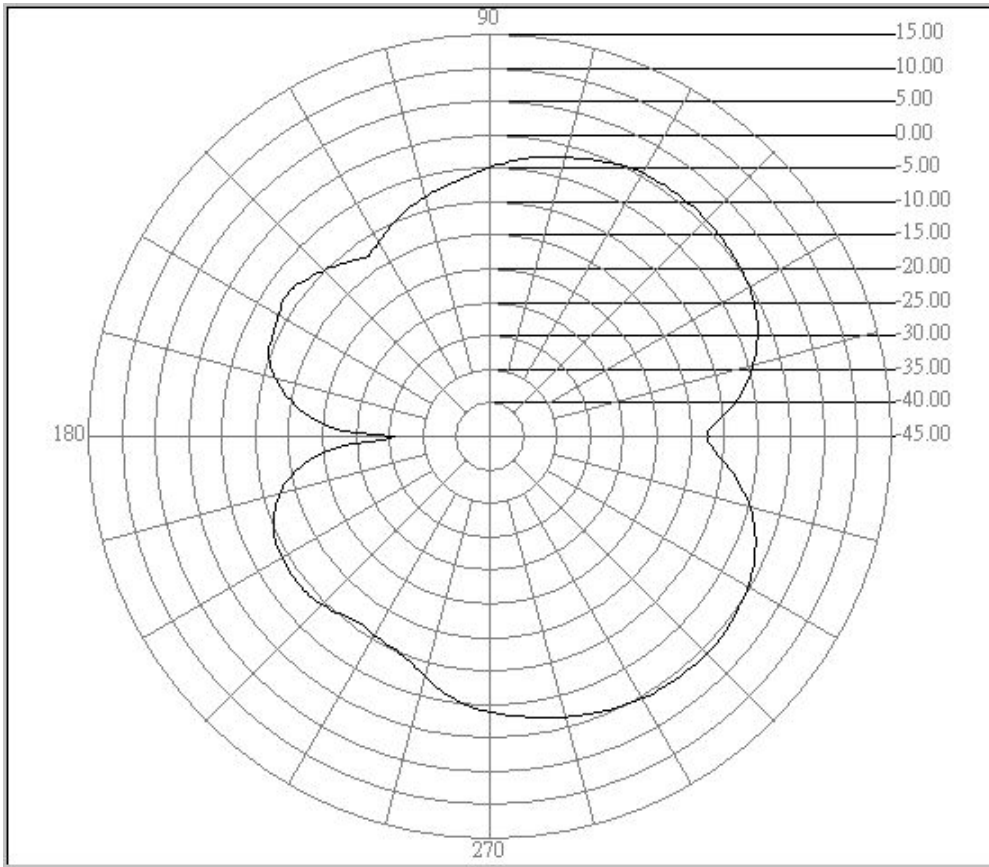
Job No.:3-30-28

Date:2005/3/14

Time:下午 02:06

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : E Plane

Max gain(dBi):0.94

Min gain(dBi):-30.64

Avg gain(dBi):-3.67

OA2414P



CCS WUGU Antenna Pattern

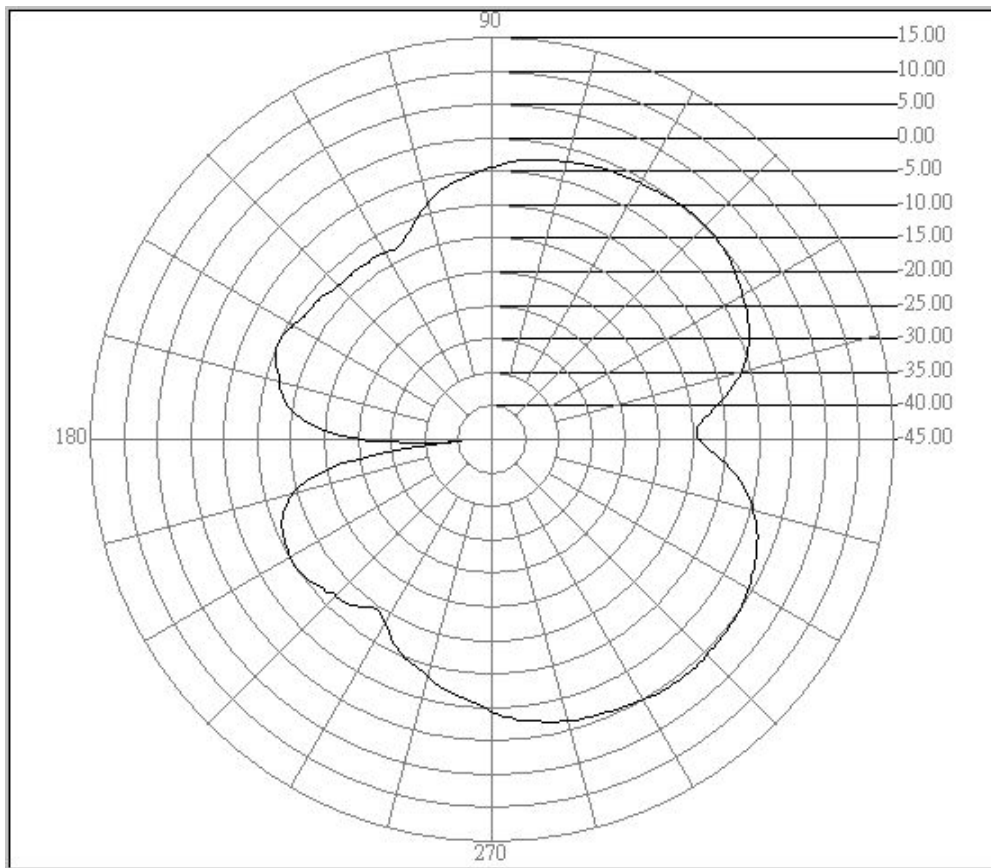
Job No.:3-30-30

Date:2005/3/14

Time:下午 02:10

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : E Plane

Max gain(dBi):0.72

Min gain(dBi):-40.46

Avg gain(dBi):-4.26

OA2414P

CCS WUGU Antenna Pattern

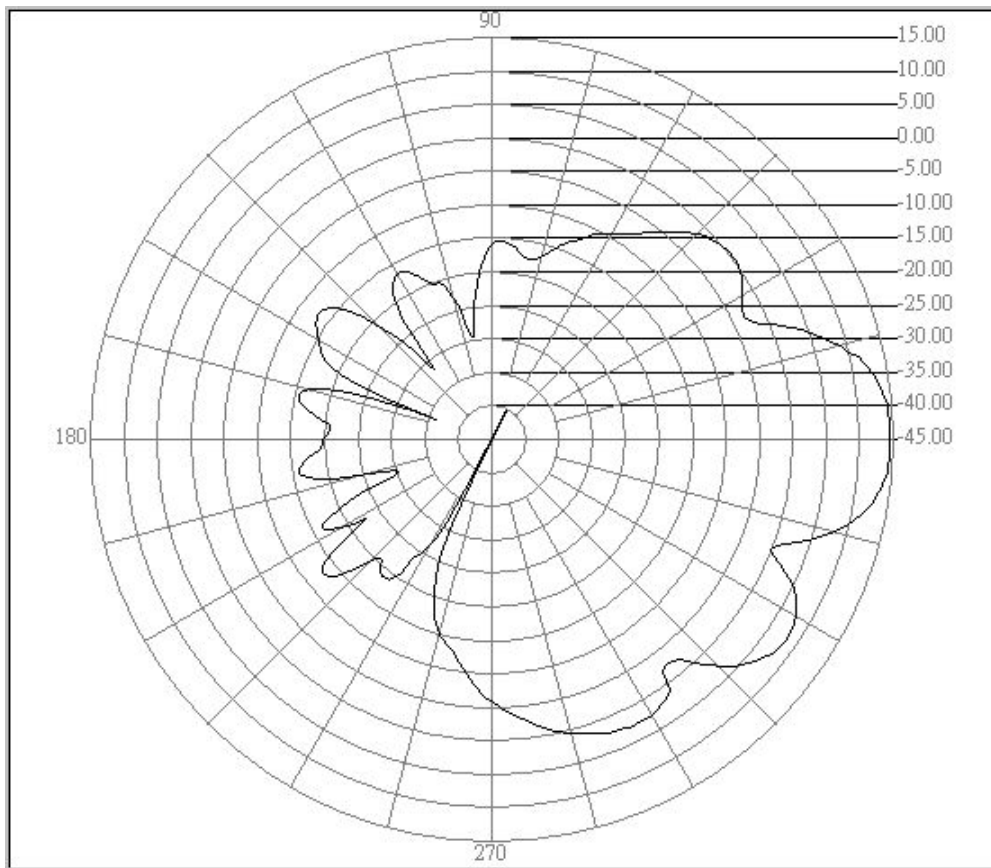
Job No.:3-30-32

Date:2005/3/14

Time:下午 02:21

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2400

Polarization : E Plane

Max gain(dBi):14.60

Min gain(dBi):-49.97

Avg gain(dBi):3.89

OA2414P

E PLANE

CCS WUGU Antenna Pattern

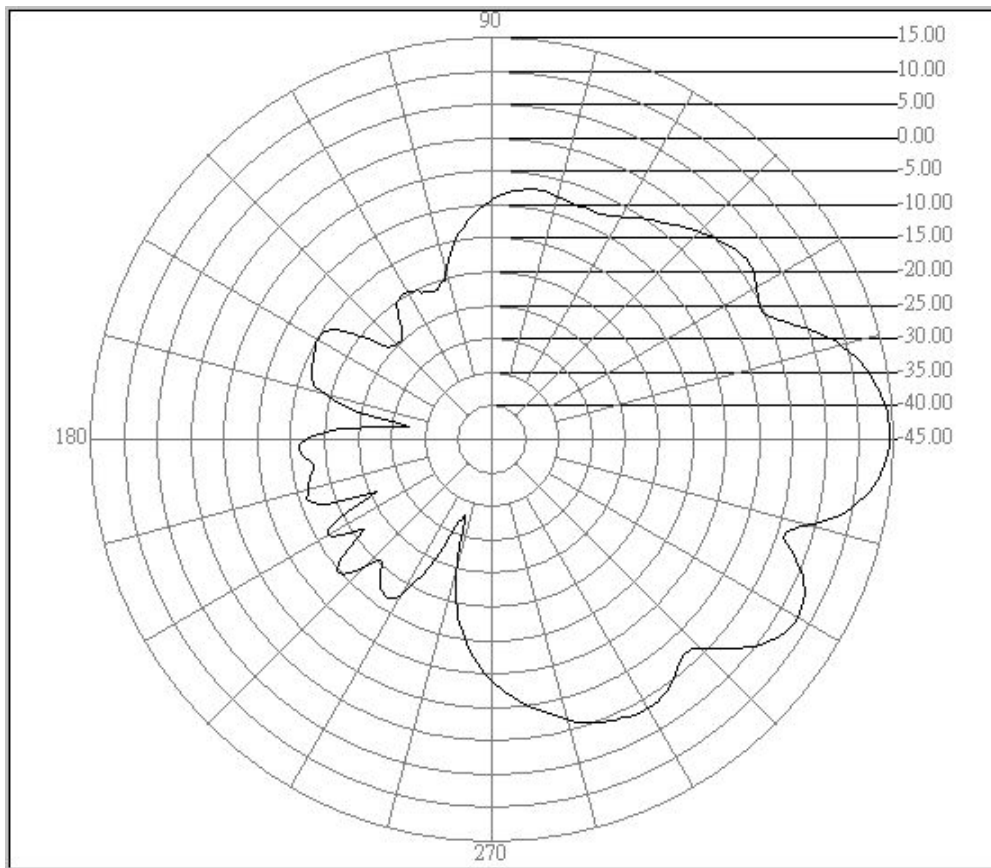
Job No.:3-30-31

Date:2005/3/14

Time:下午 02:19

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2450

Polarization : E Plane

Max gain(dBi):14.46

Min gain(dBi):-32.89

Avg gain(dBi):3.36

OA2414P

E PLANE



CCS WUGU Antenna Pattern

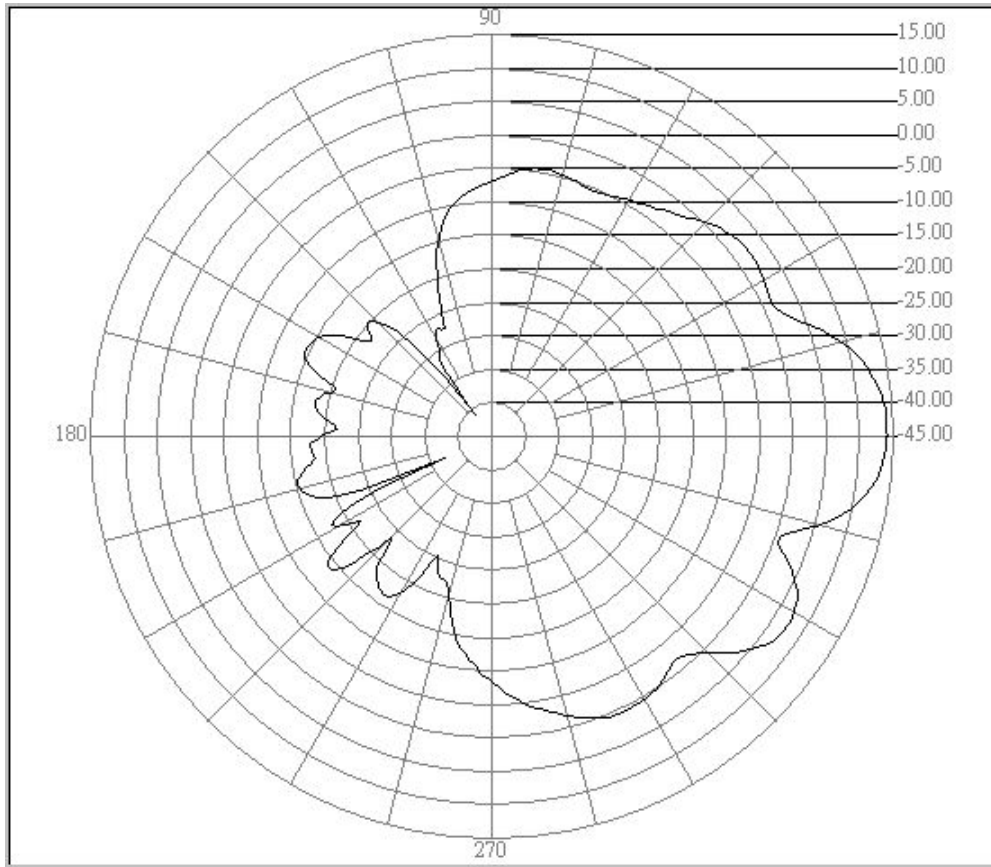
Job No.:3-30-33

Date:2005/3/14

Time:下午 02:23

Temp.(°C)/Hum.(%):25°C/60%

Tested by: ERIC



Center freq.(MHz): 2500

Polarization : E Plane

Max gain(dBi):14.06

Min gain(dBi):-40.99

Avg gain(dBi):3.34

OA2414P

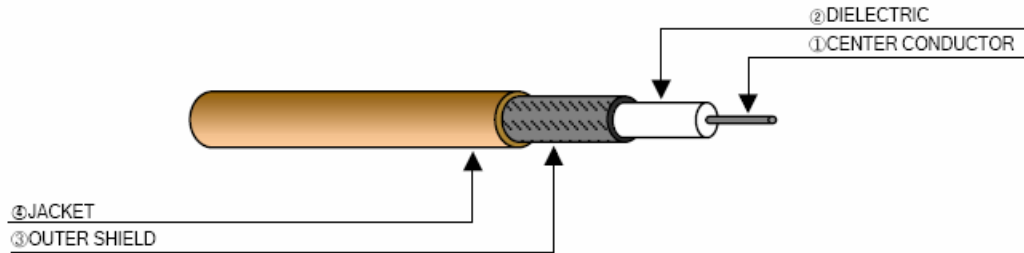
E PLANE

Model Name : CA-RG316-6NR

RG-316 RF Cable 6M N-type Male Reverse Pin to N-type Male Reverse Pin

RG-316/S

Description: RG CABLE 2.48mm(0.098inch) / 50 Ohm
 Specification: -----Mil-C-17/113-RG316



CONSTRUCTION

번호	ITEM	MATERIAL	DIAMETER	REMARK
①	CENTER CONDUCTOR	SPCW	0.50±0.02mm	Strand 7/0.170mm
②	DIELECTRIC	PTFE	1.52±0.15mm	SOLID
③	OUTER SHIELD	SPC	1.98±0.15mm	92.3%(nom.)
④	JACKET	FEP	2.48±0.20mm	BROWN

- * SPCW: Silver Plated Copper clad steel Wire
- * PTFE: PolyTetraFluorEthylene
- * SPC: Silver Plated Copper
- * FEP: Fluorinated Ethylene Propylene

ELECTRICAL DATA

ITEM	SPECIFICATION		
CAPACITANCE	104.9 pF/m (32.0 pF/FT) (nom.)		
CHARACTERISTIC IMPEDANCE	50±2 Ω		
OPERATING FREQUENCY	3 GHz		
OPERATING TEMP	-40℃ ~ +165℃		
OPERATING VOLTAGE	1,200 vrms (max.)		
VOLTAGE WITHSTANDING	2,000 vrms (min)		
WEIGHT	15 kg/Km		
MAXIMUM ATTENUATION	Frequency (MHz)	dB/100ft (dB/M)	Power (Watts)
	100	11.0(0.36)	430
	200	11.9(0.39)	-
	400	21.0(0.69)	210
	800	25.3(0.83)	-
	1,000	38.0(1.25)	130
	2,000	43.6(1.43)	-
	3,000	52.4(1.72)	-
5,000	65.5(2.15)	-	

RG-316 6M Cable Loss @ 2450MHz : 10 dB (Max.)

榮 昌 科 技 股 份 有 限 公 司

GRAND-TEK TECHNOLOGY CO.,LTD

3F,NO.10,Alley 6,Lane 45,PAO Sing Road Hsin Tien City,
Taipei Hsien Taiwan,R.O.C.

TEL : (02)29177353

FAX:(02)29106546

承 認 書

SPECIFICATION FOR APPROVAL

客 戶 名 稱 : 泰鉅科技股份有限公司

CUSTOMER

產 品 : RP-N PLUG to RP-N B/H JACK SURGE ARRESTER

客 戶 料 號 : _____

PART NO

榮 昌 料 號 : R-SA46B-CK

PART NO.

承認書編號 : RC05111001

SHEET NO.

DATE : Nov. 10, 2005

CUSTOMER CONCLUSION : APPROVED (承 認)

(客 戶 判 定) REJECTED (不合格)

LIMITED (允 收)

CONDITIONAL APPROVAL (條 件 認 可)

INCLUDING THIS COVER TOTAL 21 PAGES

(含 此 封 面 頁 共 頁)

* PLEASE SIGNED AND FAX THE RESULT TO US .

(請 於 判 定 簽 名 後 將 結 果 傳 回)

AUTHORIZE DSIGNATURES



榮昌科技股份有限公司

GRAND-TEK TECHNOLOGY CO.,LTD

3F,NO.10,Alley 6,Lane 45,PAO Sing Road Hsin Tien City,
Taipei Hsien Taiwan,R.O.C.

TEL : (02)29177353 FAX:(02)29106546

Part Number /Ver. : R-SA46B-CK

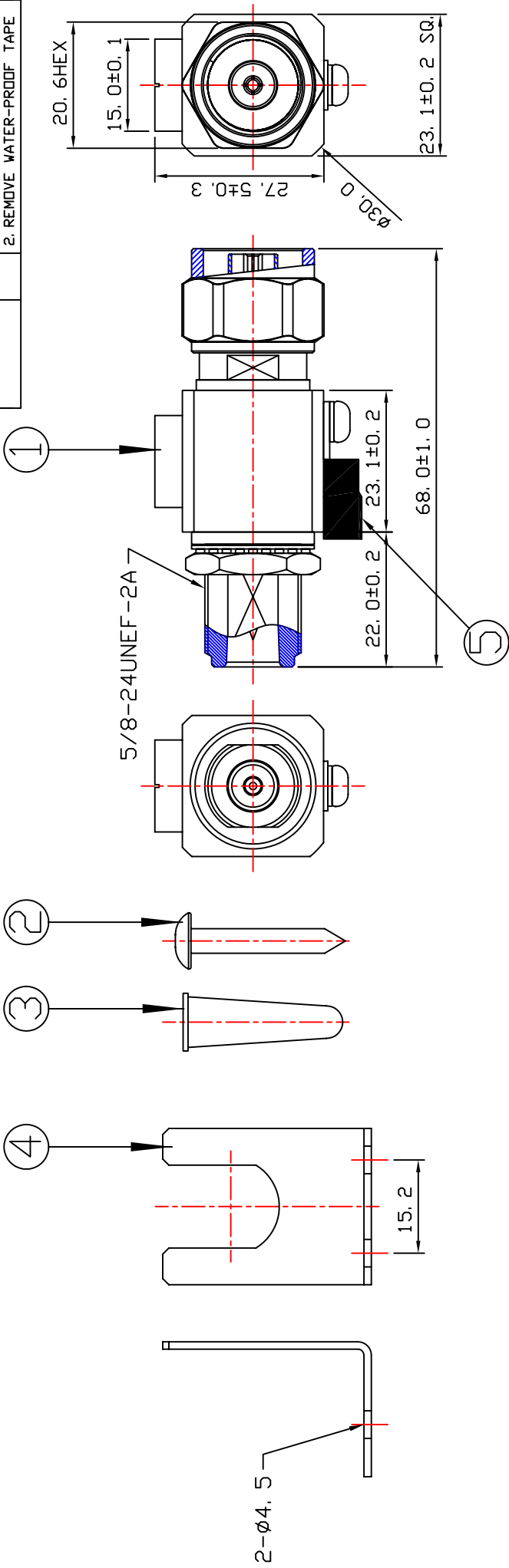
Description: RP-N PLUG TO RP-N B/H JACK, SURGE ARRESTER

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REVISIONS

DATE	LTR	DESCRIPTION	APVD.
08/02/2004	A	NEW RELEASE	
03/30/2005	B	1. REVISE INSULATED RING TERMINALS 2. REMOVE WATER-PROOF TAPE	



ELECTRICAL PERFORMANCE :

1. IMPEDANCE : 50 OHMS
2. FREQUENCY RAGNE : DC~6.0GHZ
3. VSWR 1. 2: 1 Max. @DC~3.0GHZ
1. 5: 1 Max. @3.0~6.0GHZ
4. INSERTION LOSS 0.8dB Max. @6.0GHZ
5. INSULATOR RESISTANCE : 1000M OHMS
6. DC BREAKDOWN VOLTAGE : 90V±20%
7. IMPULSE DISCHARGE VOLTAGE : 5KV min.
8. OPERATION AND STORAGE TEMPERATURE : -40~90°

UNLESS OTHERWISE SPECIFIED TOLERANCE : ANGLES : ±2° X.X ±0.3 X.XX ±0.15 DO NOT SCALE DRAWING		TITLE RP-N PLUG TO RP-N B/H JACK SURGE ARRESTER	
DRAWN BY <i>ERIC</i>	UNIT mm	PART NO.	REV. B
CHECKED BY <i>Amin</i>	SCALE 1 : 1	THIRD ANGLE PROJECTION	PAGE 1 OF 1
APPROVED BY <i>Amin</i>	DATE 3/30/2005	ITEM NO. R-SA46B-CK	DATE 03/30/2005
5	1 EA	VINYL-INSULATED RING TERMINALS (COLOR: BLACK)	
4	1 EA	FIXTURE	
3	2 EA	PLASTIC SCREW HOLDER	
2	2 EA	SCREW	
1	1 EA	SURGE ARRESTER MAIN BODY	
ITEM	QTY	U/M	DESCRIPTION

榮昌科技股份有限公司
GRAND-TEK TECHNOLOGY CO., LTD.



Product Item: Surge Arrester R-SA46B-CK



RP-N plug



RP-N B/H jack

Part descriptions:

Part no.	
R-SA46B-CK	RP-N plug to RP-N B/H jack Surge Arrester

Mechanical Specifications:

Characteristics	
Tensile Strength	50.0 Kg
Weight	160g/pcs

RF coaxial Surge Arrester : General a Surge Arrester for Outdoor application with wireless communication system、GPS、 Mobile Antenna、 801.11a/b/g WLAN.

Specifications:

Impedance	50Ω
Frequency Range	DC~6GHz

NO.	Item	Condition	SPEC.			
			Max	Min	Unit	Time
1.	Salt Spray test	MIL-STD-202F Method 101D Test Condition		48		hr
2.	Thread	USE GO-NO GO Gauge Test				
3.	VSWR	DC~4GHz 1.2 (MAX) : 1				
		4GHz~6GHz 1.5 (MAX) : 1				
4.	Insertion Loss	0.8dB (max)@DC~6GHz	0.8		dB	
5.	Insulation Resistance	DC 50V > 10000MΩ		10000	MΩ	
6.	DC Breakdown Voltage	90V ± 20%	108	72	V	
7.	Impulse Discharge Voltage	5KA min (wave 8/20 μs) 5KV min (wave 1.2/50 μs)(2))		5000	V	
8.	N female pin initial insertion force	2Kg max (Ø1.6mm pin gauge)	2		Kg	
9.	N female pin initial pull-out force	0.4Kg min (Ø1.6mm pin gauge)		0.4	Kg	
10.	N female pin initial pull-out force after 50 times	0.3Kg min (Ø1.6mm pin gauge)		0.3	Kg	