ECS ELITEGROUP
精 英 電 腦

編號：
版次：

RoHS 承 認 書
RoHS APPROVAL SHEET

精英電腦股份有限公司
Elitegroup Computer Systems Co., Ltd

廠商名稱 **Vendor Name**	鴻 呈(VSO)
ECS 料 號 **ECS Part No.**	13-130-F62011
ECS 品 名 **ECS Description**	ANTENNA R.15.4...W/CABLE... 330..LEAD-FREE.VSO
廠商型號 **Vendor Part No.**	82-101-01210080
廠商聯絡人 **Windows**	王志偉
Vendor Address:	
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Fax:	(02)32343056
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Web:	vso.com.tw

西元 2006 年 03月 06日

INDEX

ECSM P/N：13-130-F62011

Specification

1.Electical Properties

1.1 Frequency Range ..... 2.4~2.5GHz；5.15~5.85GHz
1.2 Impedance 50
1.3 VSWR ..... 2.0 max
1.4 Return Loss ..... -10 dB max
1.5 Gain

Pattern	Average			Peak		
頻率	Ex	Ey	Ex+Ey	Ex	Ey	Ex+Ey
2.40 GHz	-8.58	-9.35	-5.94	-2.69	-0.78	1.379
2.45 GHz	-9.53	-8.69	-6.08	-4.62	-0.32	1.052
2.50 GHz	-10.6	-8.43	-6.37	-4.26	-0.22	1.224
5.15 GHz	-11.52	-3.78	-6.97	-8.85	-2.47	-0.07
5.55 GHz	-11.50	-5.31	-8.03	-10.62	-2.31	-0.55
5.85 GHz	-10.91	-3.86	-6.76	-8.87	-1.36	0.58

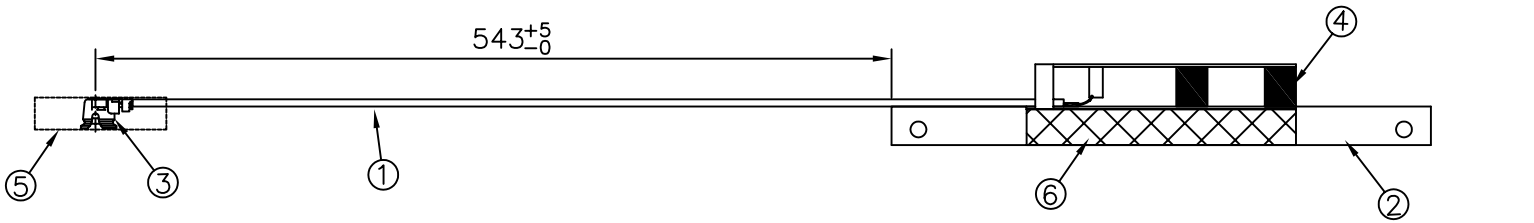
2.Physical Properties

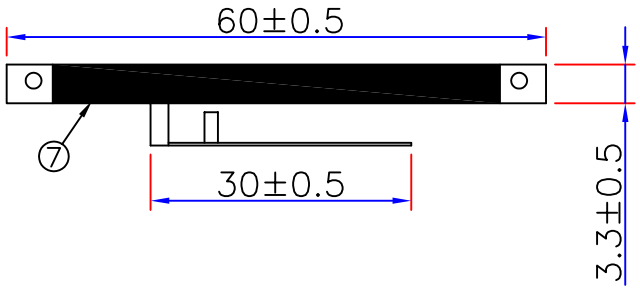
2.1 Cable Type ..... ϕ 1.13 Coaxial
2.2 Cable Color ..... Gray
2.3 Cable Attenuations ..... 3.0 dB/m @2.0GHz
3.6 dB/m @2.5GHz
3.9 dB/m @3.0GHz
4.8 dB/m @4.0GHz
5.4 dB/m @5.0GHz
6.2 dB/m @6.0GHz

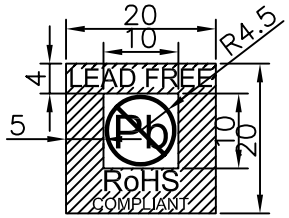
2.4 Cable Connector ..... I-PEX
2.5 PIFA Metal ..... 洋白銅
2.6 Operating Temperature ..... -20℃ ～ +65℃
2.7 Storage Temperature ..... -30℃ ～ +75℃

DRAW ID
CD

REVISION			
REV.	DESCRIPTION	APPROVAL	DATE
D	變更爲環保料,增加條碼與環保貼紙		06.03.16







NOTE:
1.TEXT STYLE:ARIAL
2."LEAD FREE" TEXT HIGH:2.5mm
3."ROHS" TEXT HIGH:2.8mm
4."Pb" TEXT HIGH:4.5mm
5."COMPLIANT" TEXT HIGH:1.6mm
6.陰影部分綠底白字,空白部分白底綠字

注:用網絡分析儀進行測試

ITEM		DESCRIPTION	Q'TY
⑦	雙面膠	雙面膠:L54*W3.3*T0.14mm	1PCS
⑥	導電泡棉	導電泡棉:30*4*4mm	1PCS
⑤	TUBE	PVC透明套管:ø3.1*20mm	1PCS
④	支撐膠	EVA支撐膠, BLACK	2PCS
③	CONN	I-PEX TERM GOLD-PLATED	1PCS
②	PIFA BODY	洋白銅	1PCS
①	RF CABLE	CABLE:ø1.13 COAXIAL CABLE,COLOR:GRAY	1PCS

XX.	±0.5
X.	±0.3
.X	±0.1
.XX	±0.05

RoHS COMPLIANT

VSO ELECTRIC CO.,LTD.

CUST. P/N: 精英(13-130-F62011)				DRAW.:
TITLE: PIFA ANTENNA				ENGIN:
VSO P/N: 82-101-01210080				CHECK:
UNITS mm	DWG. NO.:	PAGE: 1/3	REV. D	APPR.:

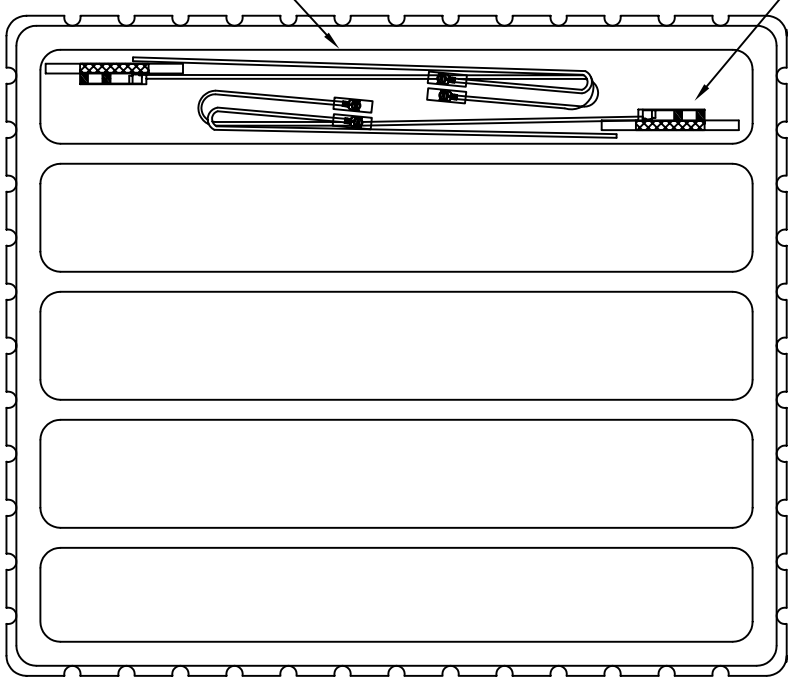
4 3 2 1

D C B A

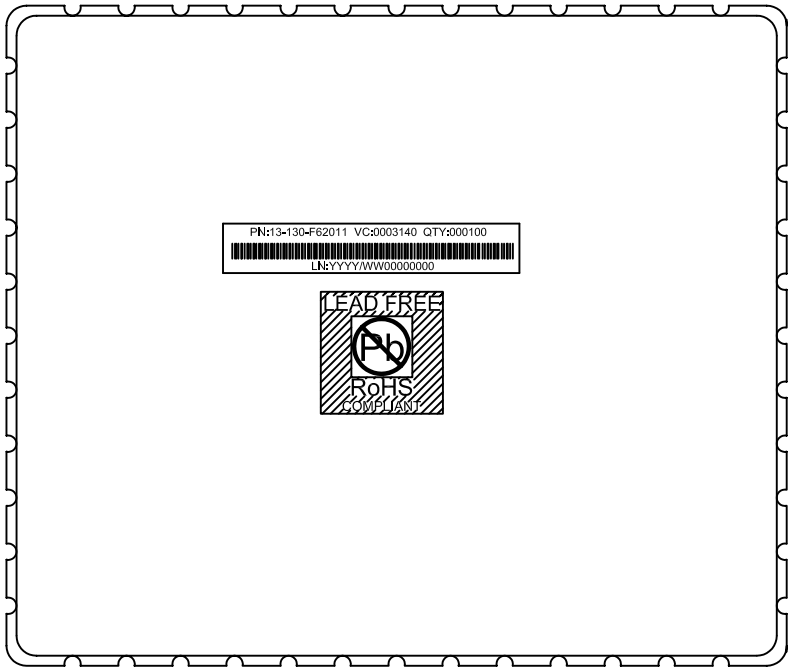
DRAW ID
CD

REVISION

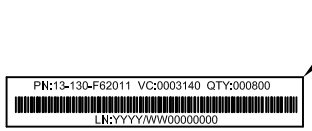
REV.	DESCRIPTION	APPROVAL	DATE
B	增加條碼與環保貼紙		06.03.16



吸塑盤底盤



吸塑盤上蓋



NOTE:

1.吸塑盤規格:L540*W310*H25mm,紙箱規格:L550*W320*H220mm
2.10PCS用橡皮筋捆成一把,一格可放2把20PCS成品
3.一個吸塑盤分五格,可放100PCS成品,一箱放八個吸塑盤可裝800PCS成品
4. 貼紙貼在吸塑盤上蓋中間,用量1

XX.	±0.5
X.	±0.3
.X	±0.1
.XX	±0.05

RoHS COMPLIANT

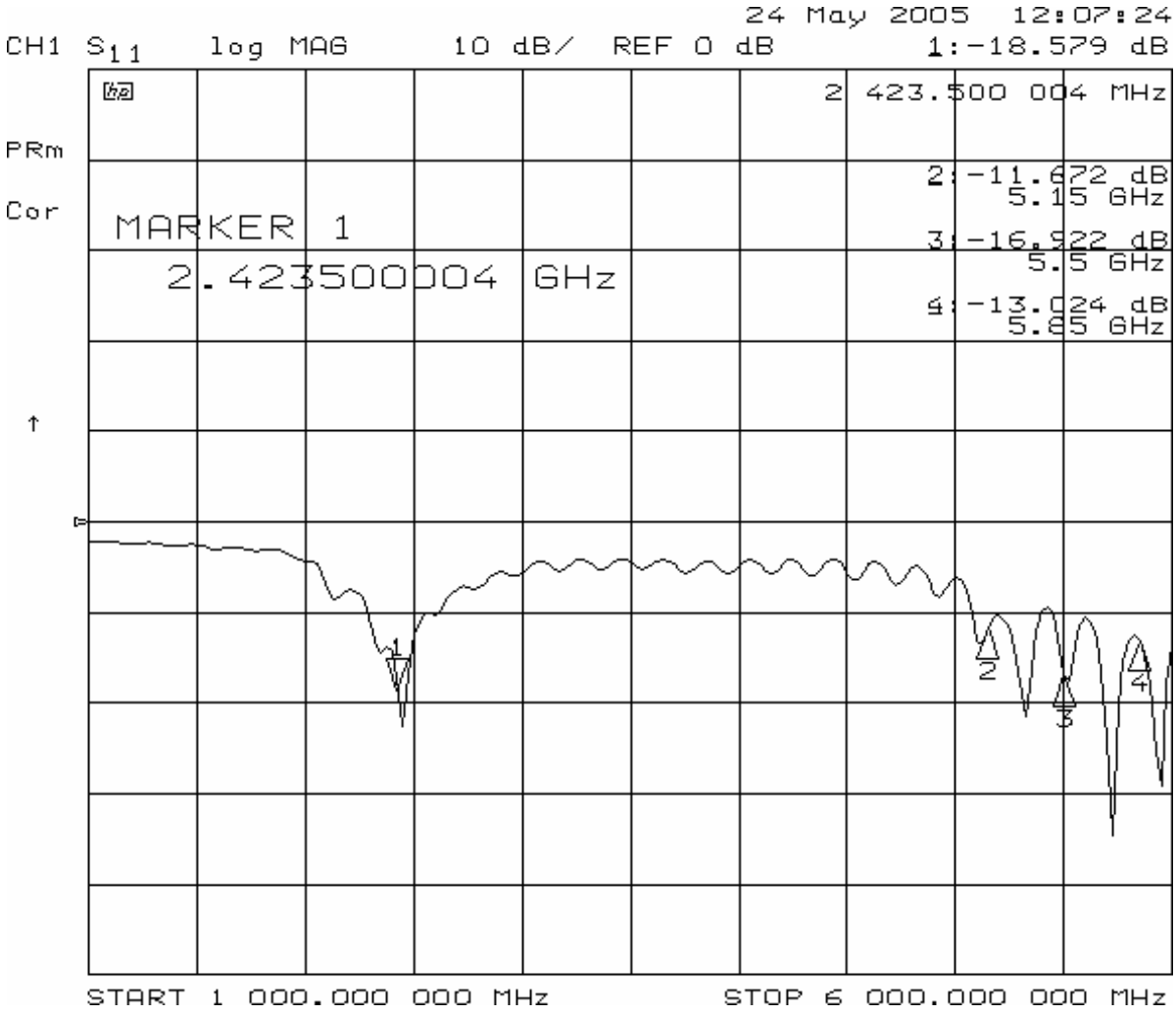
VSO ELECTRIC CO.,LTD.

CUST. P/N: 精英(13-130-F62011)				DRAW.:
TITLE: 包裝圖				ENGIN.:
VSO P/N: 82-101-01210080				CHECK:
UNITS mm	DWG. NO.:	PAGE: 3/3	REV. B	APPR.:

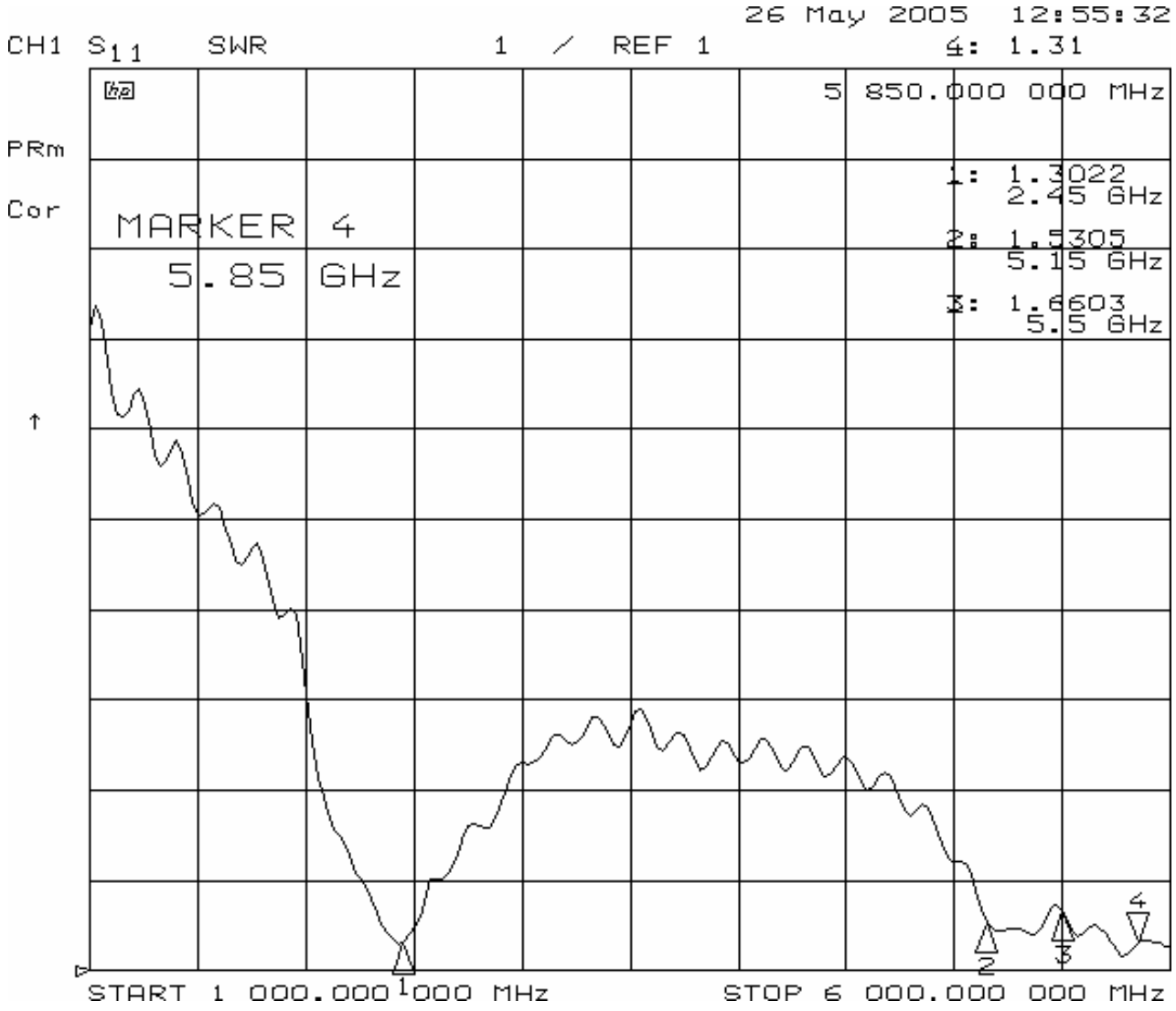
D C B A

4 3 2 1

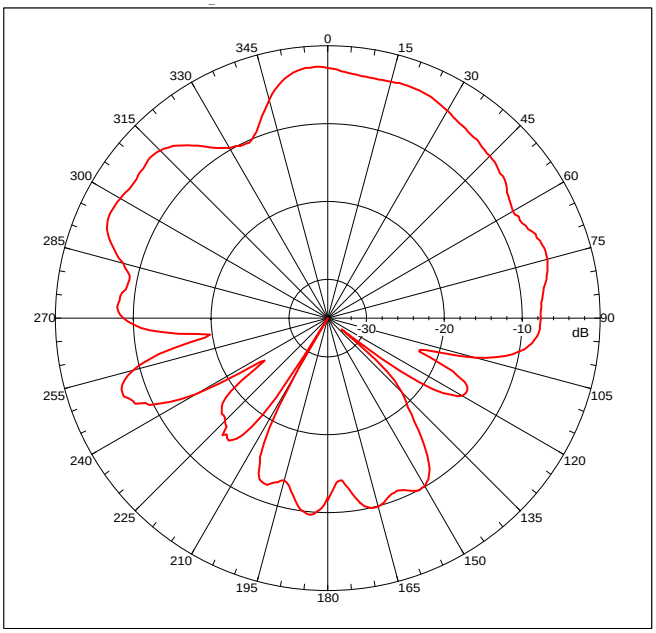
G330-Gray RETURN LOSS



G330-Gray VSWR



Far-field amplitude of G300-2.4G-Ex.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -2.69088 dBi
Max far-field (global) = -49.23862 dB, Max far-field (plot) = -49.23862 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: -3.00001 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G300\Data\G300-2.4G-Ex-2.nsi
Measurement date/time: 4/6/2006 4:57:04 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -8.581 dB
  -3. dB beam width: 62.11 deg
  -6. dB beam width: 117.26 deg
  -10. dB beam width: 197.83 deg
  Left Sidelobe: -1.53 dB at -47.632 deg
  Right Sidelobe: -3.49 dB at 68.691 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
1	2.400 GHz	Azimuth	Elevation	Single-pol

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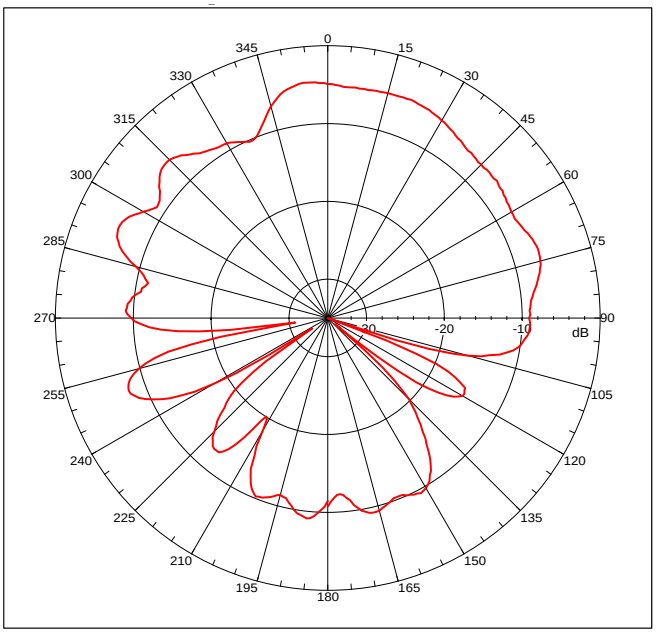
Far-field amplitude of G300-2.4G-Ex.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -4.62222 dBi
Max far-field (global) = -52.14963 dB, Max far-field (plot) = -52.14963 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: -6.00001 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G300\Data\G300-2.4G-Ex-2.nsi
Measurement date/time: 4/6/2006 4:57:04 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -9.529 dB
  -3. dB beam width: 75.15 deg
  -6. dB beam width: 176.81 deg
  -10. dB beam width: 199.02 deg
  Left Sidelobe: -1.59 dB at -45.627 deg
  Right Sidelobe: -1.94 dB at 72.702 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
2	2.450 GHz	Azimuth	Elevation	Single-pol

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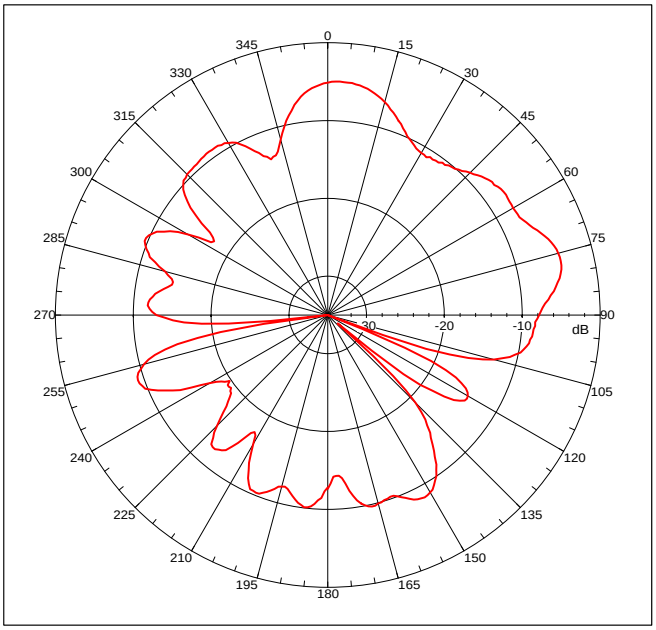
Far-field amplitude of G300-2.4G-Ex.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -4.26204 dBi
Max far-field (global) = -52.0764 dB, Max far-field (plot) = -52.07645 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 75.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G300\Data\G300-2.4G-Ex-2.nsi
Measurement date/time: 4/6/2006 4:57:04 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -10.600 dB
  -3. dB beam width: 24.40 deg
  -6. dB beam width: 62.64 deg
  -10. dB beam width: 159.81 deg
  Left Sidelobe: -0.77 dB at 6.518 deg
  Right Sidelobe: -9.88 dB at 121.839 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
3	2.500 GHz	Azimuth	Elevation	Single-pol

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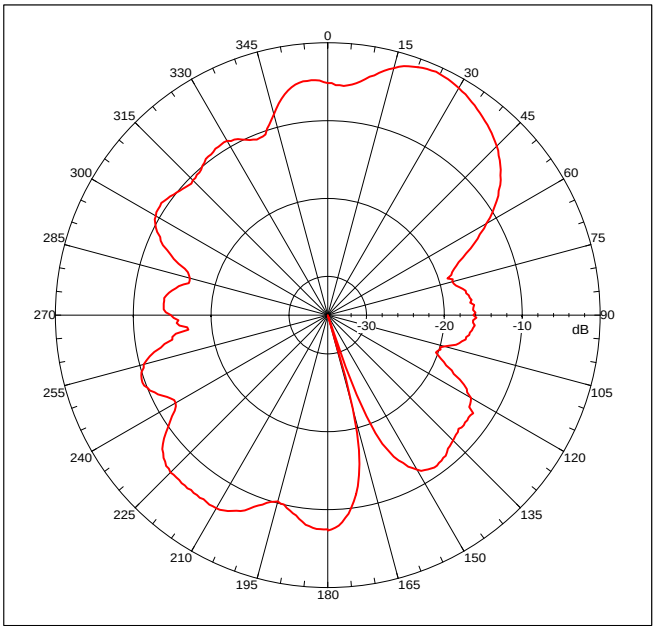
Far-field amplitude of G300-2.4G-Ey.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -0.77614 dBi
Max far-field (global) = -47.32388 dB, Max far-field (plot) = -47.3239 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 23.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G300\Data\G300-2.4G-Ey-2.nsi
Measurement date/time: 4/6/2006 5:04:22 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -9.351 dB
  -3. dB beam width: 32.52 deg
  -6. dB beam width: 64.58 deg
  -10. dB beam width: 123.72 deg
  Left Sidelobe: -8.32 dB at -30.585 deg
  Right Sidelobe: -15.65 dB at 84.735 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
1	2.400 GHz	Azimuth	Elevation	Single-pol

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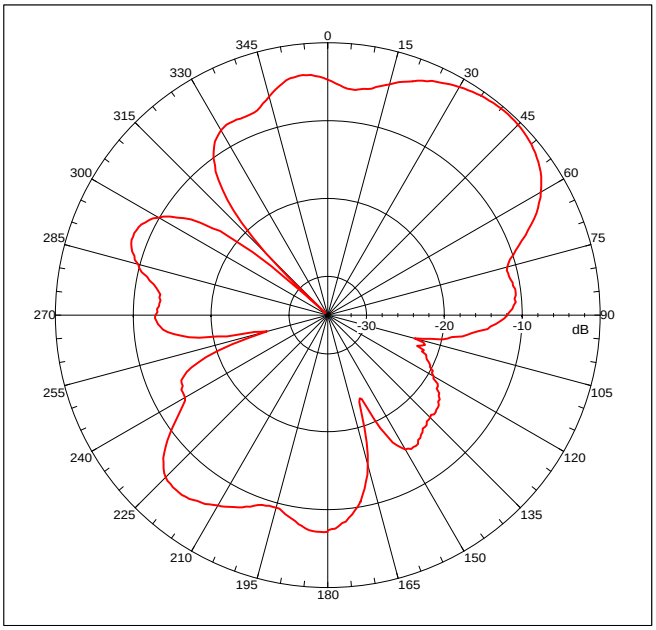
Far-field amplitude of G300-2.4G-Ey.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -0.31879 dBi
Max far-field (global) = -47.8462 dB, Max far-field (plot) = -47.84621 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 41.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G300\Data\G300-2.4G-Ey-2.nsi
Measurement date/time: 4/6/2006 5:04:22 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -8.689 dB
  -3. dB beam width: 41.13 deg
  -6. dB beam width: 82.23 deg
  -10. dB beam width: 109.28 deg
  Left Sidelobe: -3.66 dB at -5.515 deg
  Right Sidelobe: -21.60 dB at 107.800 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
2	2.450 GHz	Azimuth	Elevation	Single-pol

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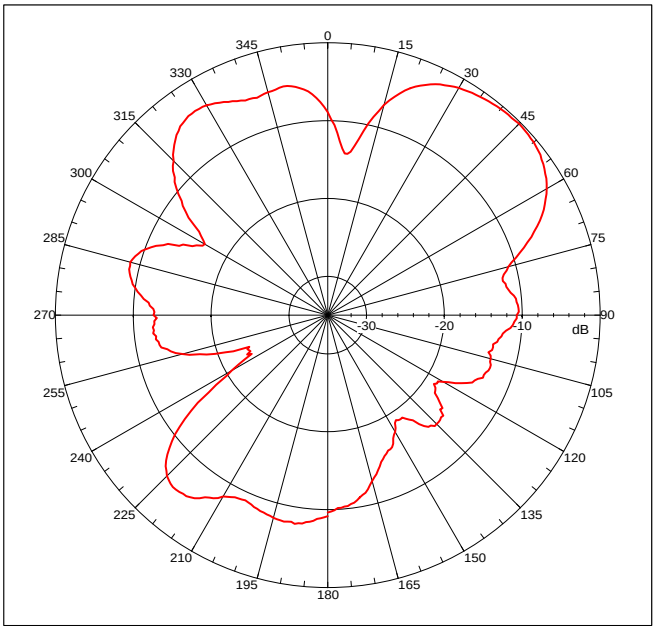
Far-field amplitude of G300-2.4G-Ey.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -0.22392 dBi
Max far-field (global) = -48.03828 dB, Max far-field (plot) = -48.03832 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 44.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

test-20060406

NSI2000 V4.0.174, Filename:C:\PIFA\ECSM\G550\Data\G300-2.4G-Ey-2.nsi
Measurement date/time: 4/6/2006 5:04:22 PM, Filetype: NSI-97
Far-field Cut Analysis:
  Avg value: -8.425 dB
  -3. dB beam width: 39.98 deg
  -6. dB beam width: 51.69 deg
  -10. dB beam width: 62.25 deg
  Left Sidelobe: -4.85 dB at -10.529 deg
  Right Sidelobe: -10.22 dB at 89.749 deg
Far-field display setup
  Azimuth (deg)
    Span = 360.00001 deg, Center = 0.000 deg, #pts = 361
    Start= -180.00001 deg, Stop = 180.00001 deg, Delta = 1.000 deg
  Elevation (deg)
    Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
3	2.500 GHz	Azimuth	Elevation	Single-pol

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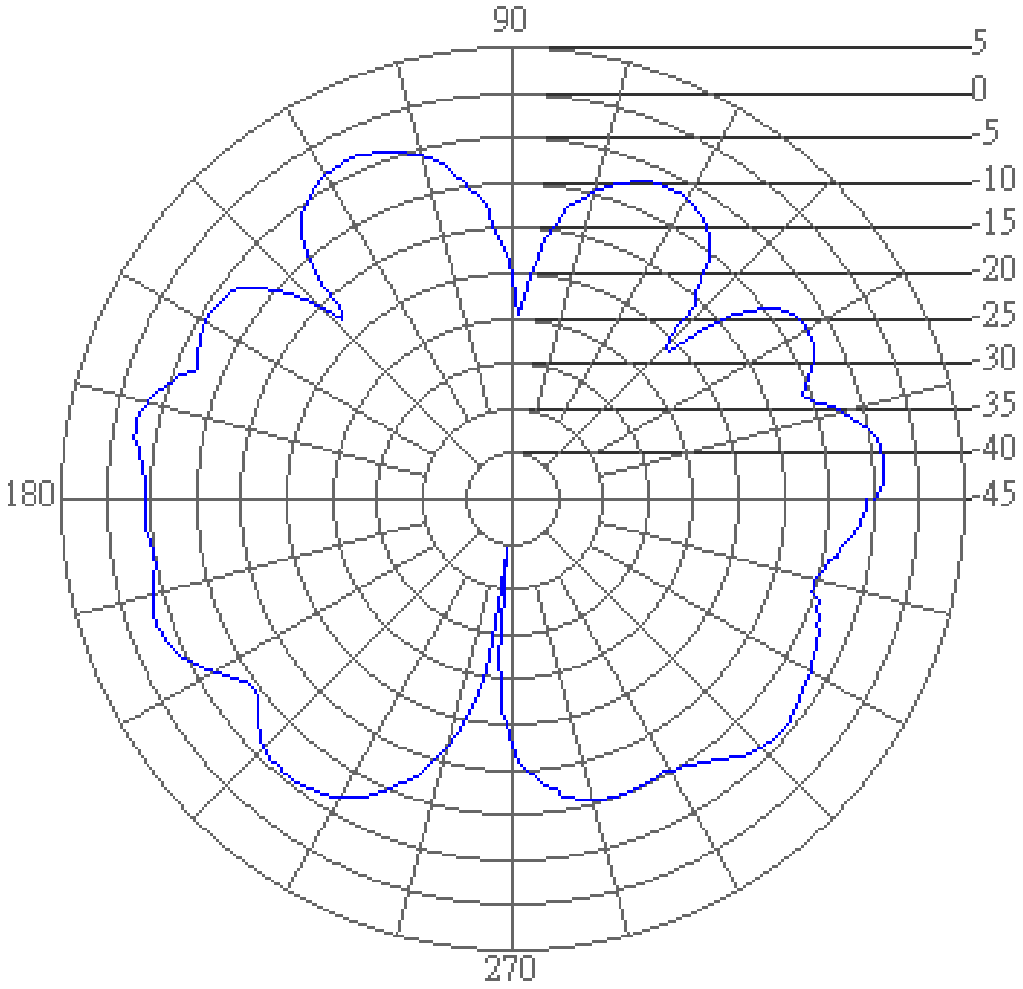
E Plane



Frequency 5150.00 MHz

Average Gain= -8.85 Max Gain= -2.47 Min Gain= -39.64

Custom Name: 鸿呈-0526

Model Name: G330-G-2450_0

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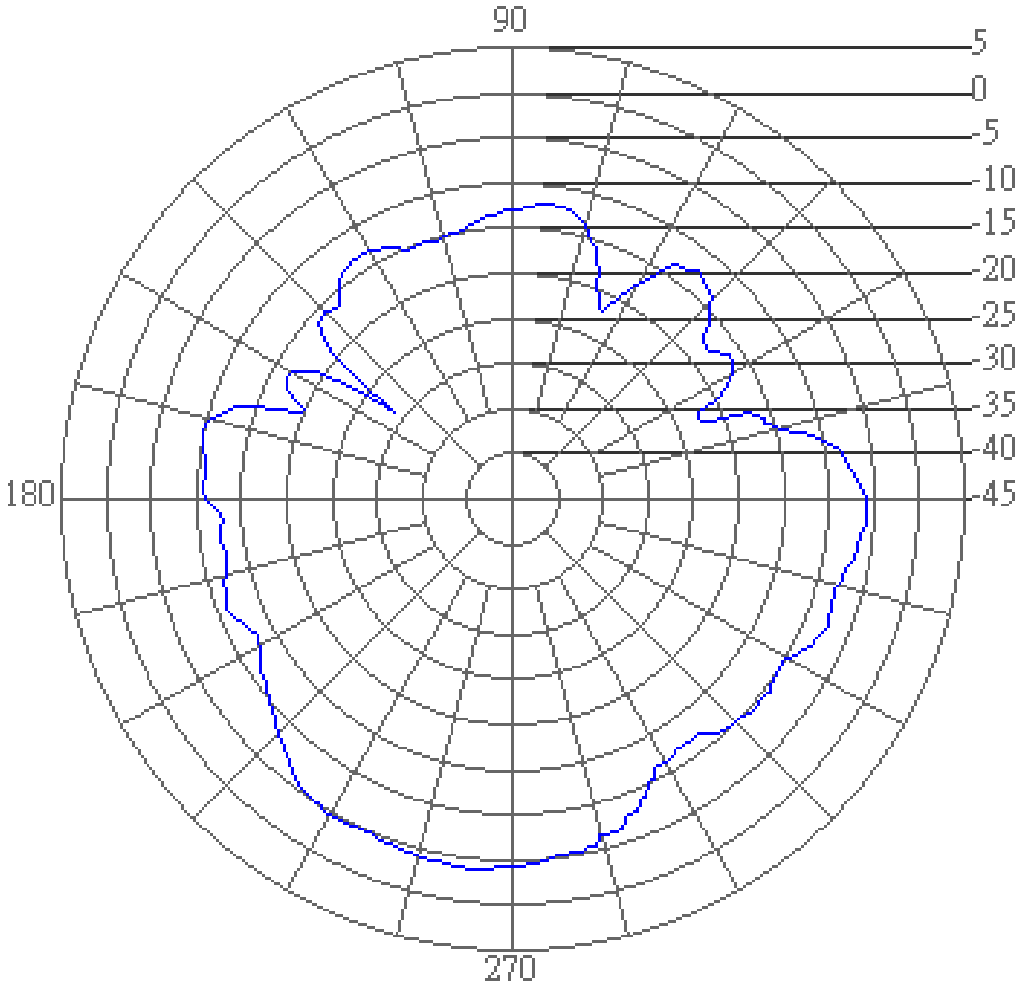
H Plane



Frequency 5150.00 MHz

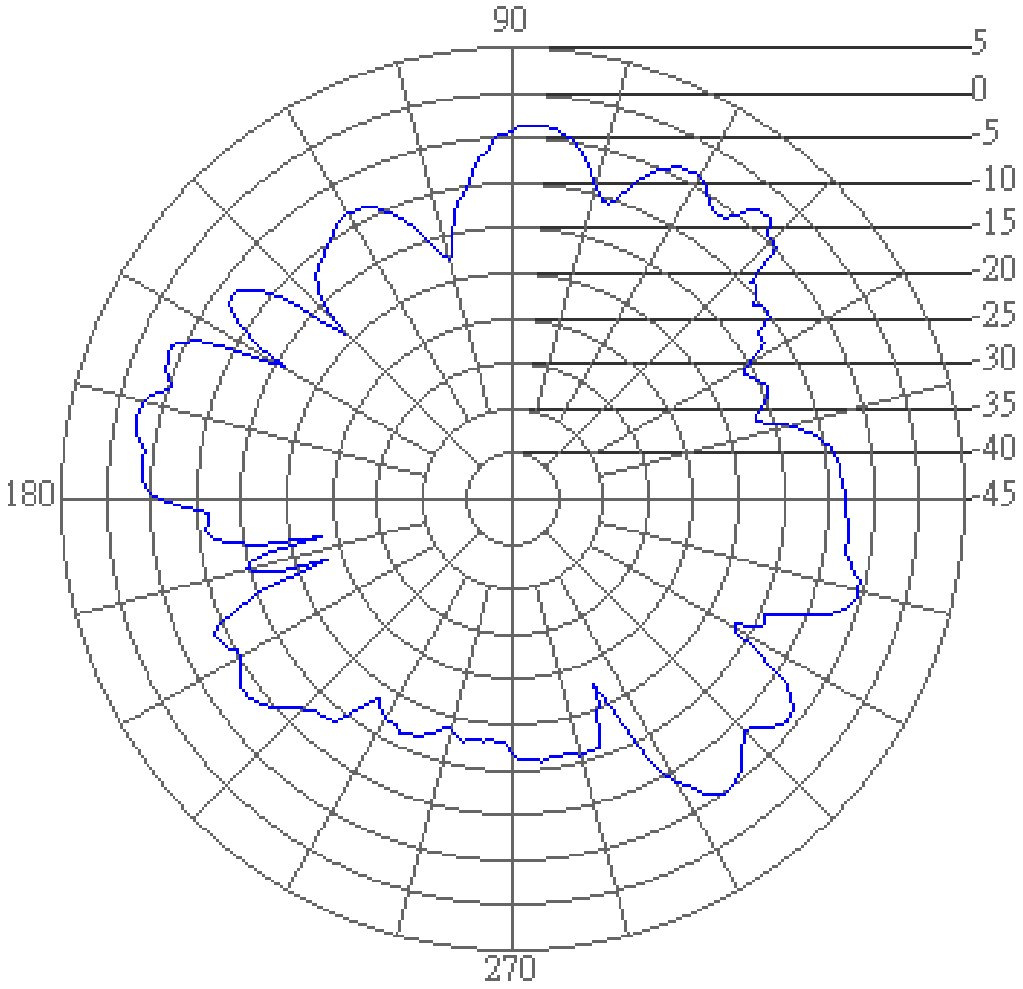
Average Gain= -11.52 Max Gain= -3.78 Min Gain= -28.61

Custom Name: 鸿呈-0526

Model Name: G330-G-5150_0

C&C LABORATORY CO.,LTD

E Plane



Frequency 5500.00 MHz

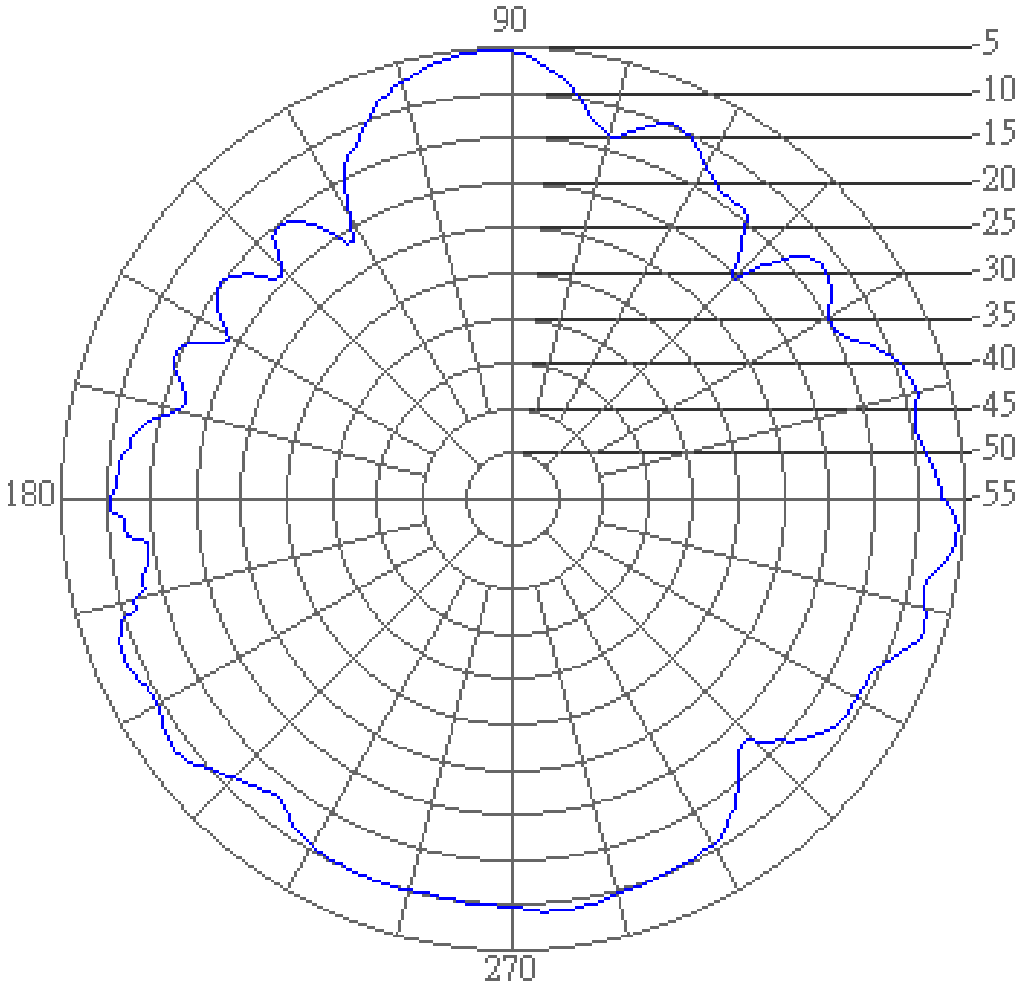
Average Gain= -10.62 Max Gain= -2.31 Min Gain= -23.48

Custom Name: 鸿呈-0526

Model Name: G330-G-5500_0

C&C LABORATORY CO.,LTD

H Plane



Frequency 5500.00 MHz

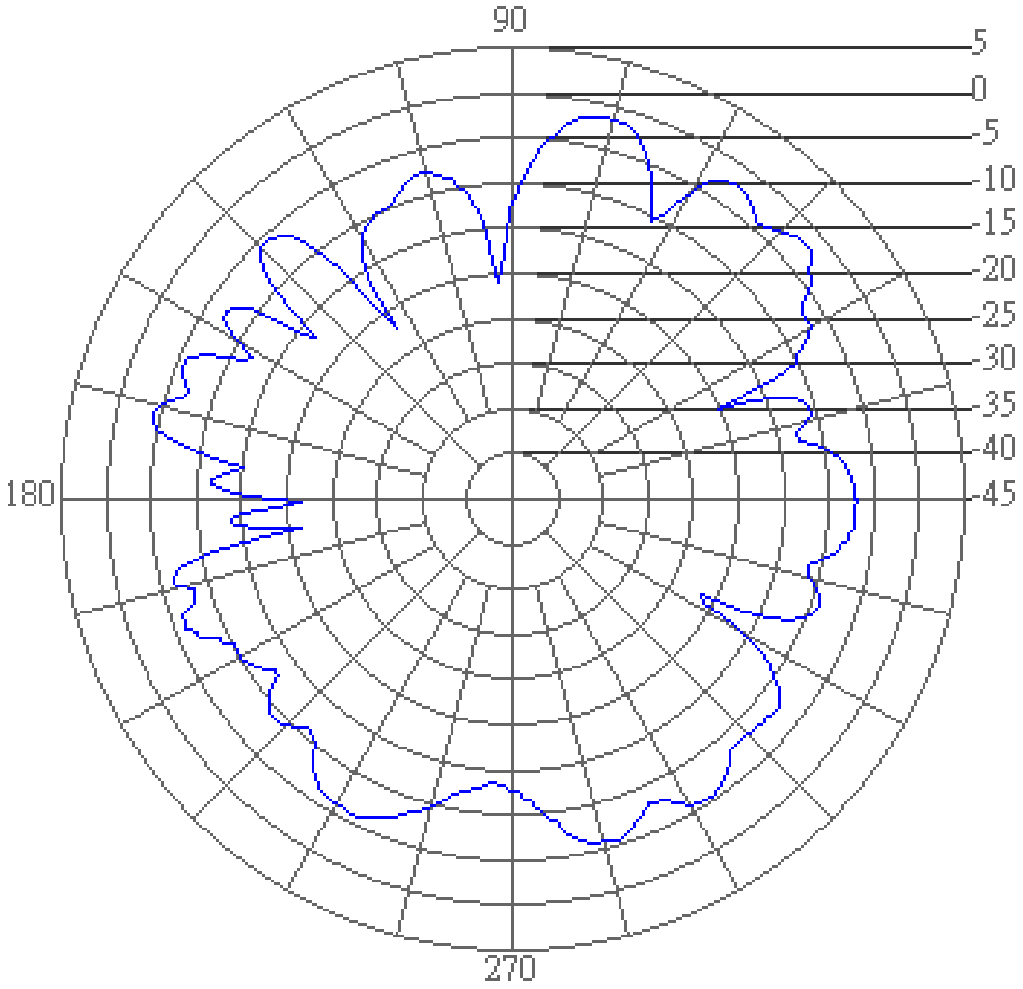
Average Gain= -11.50 Max Gain= -5.31 Min Gain= -21.65

Custom Name: 鸿呈-0526

Model Name: G330-G-5500_0

C&C LABORATORY CO.,LTD

E Plane



Frequency 5850.00 MHz

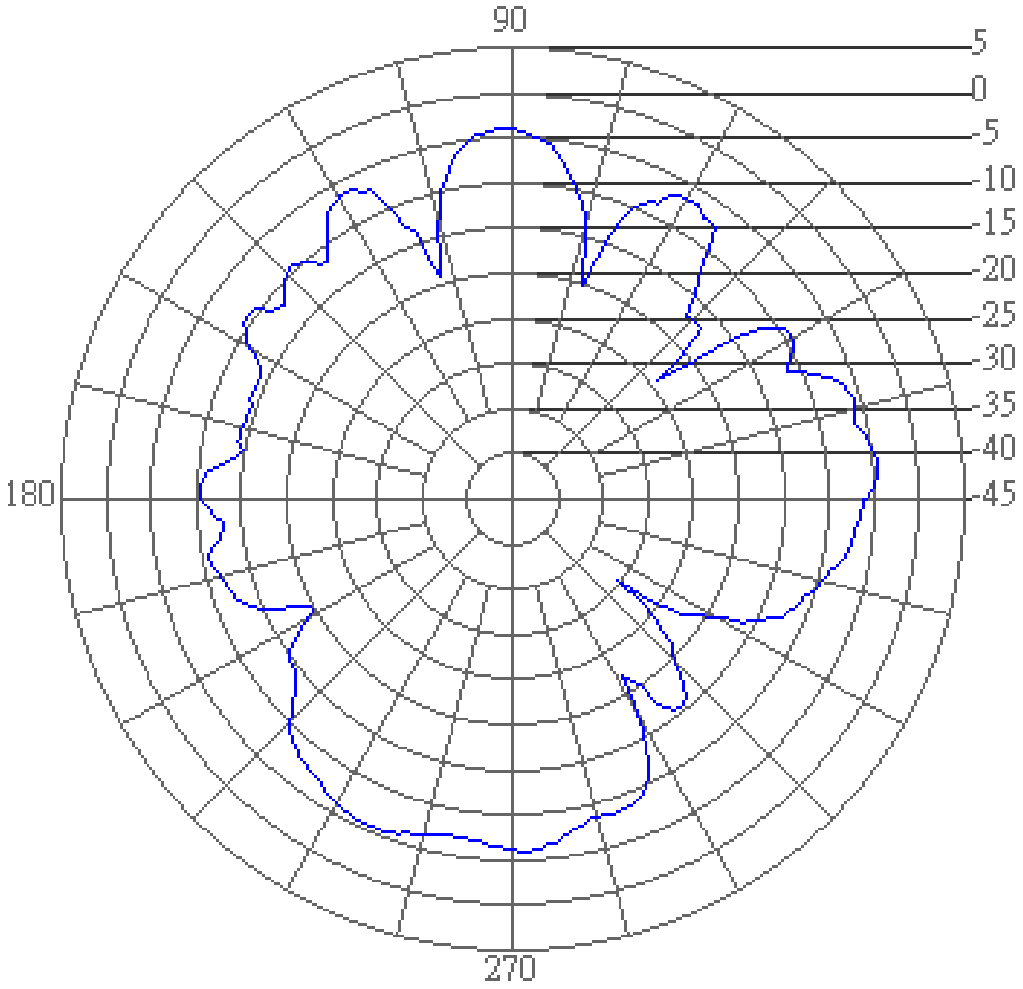
Average Gain= -8.87 Max Gain= -1.36 Min Gain= -22.19

Custom Name: 鸿呈-0526

Model Name: G330-G-5850_0

C&C LABORATORY CO.,LTD

H Plane



Frequency 5850.00 MHz

Average Gain= -10.91 Max Gain= -3.86 Min Gain= -30.36

Custom Name: 鸿呈-0526

Model Name: G330-G-5850_0