

APPROVAL SHEET

For : 倫 飛 電 腦 股 份 有 限 公 司
Twinhead International Computer, Inc.

MODEL : R15GN

DESCRIPTION : R15GN Wireless PIFA Antenna

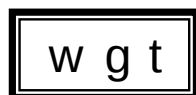
wgt P/N : TWR15WIPI01A

CUSTOMER P/N :

DATE : 11 JUL.,2003

Manager	Chief	Engineer

Check	Responser



精乘科技股份有限公司

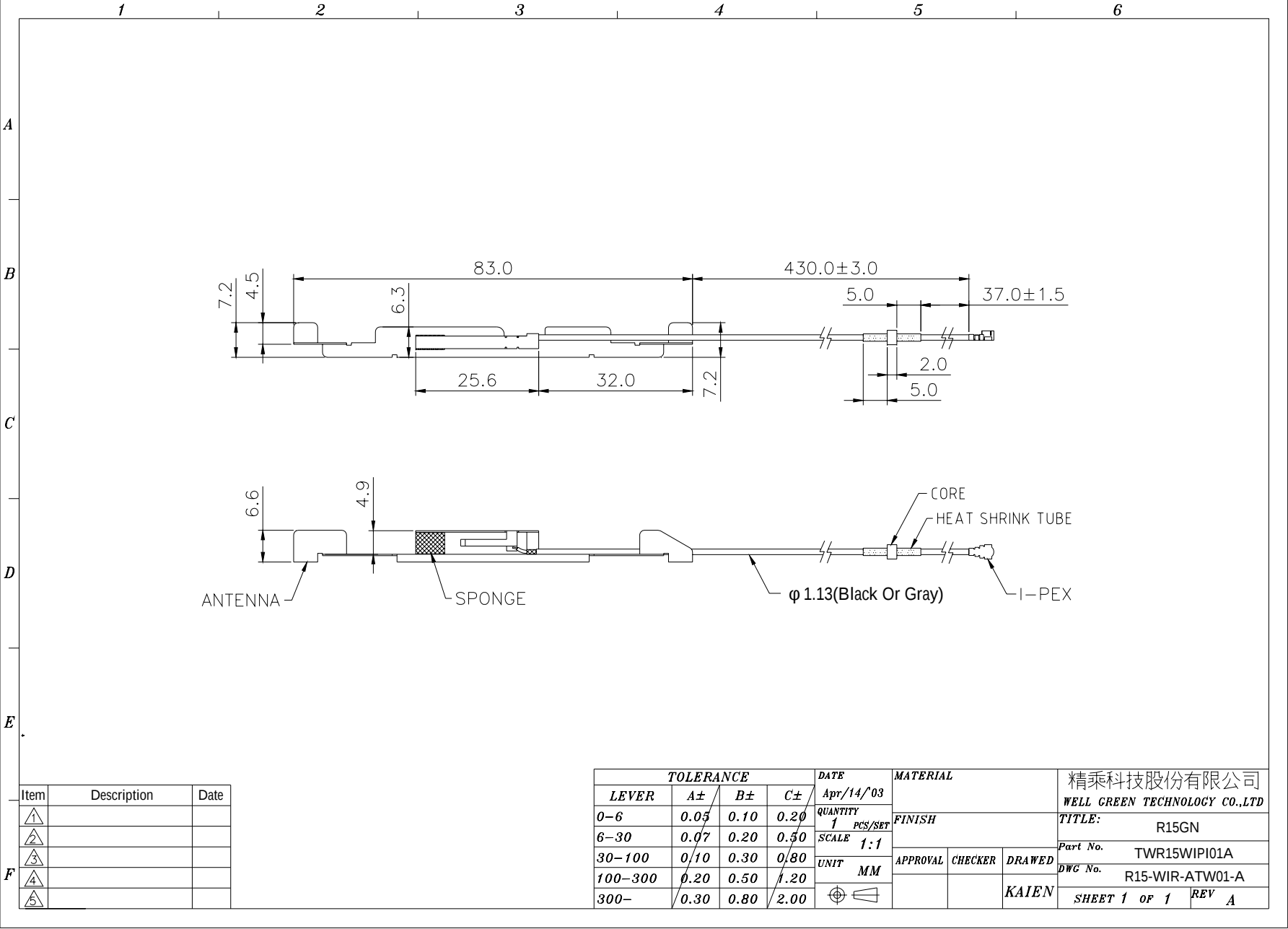
Well Green Technology Co., Ltd.

桃園縣平鎮市民族路雙連二段 118 巷 51 弄 20 號

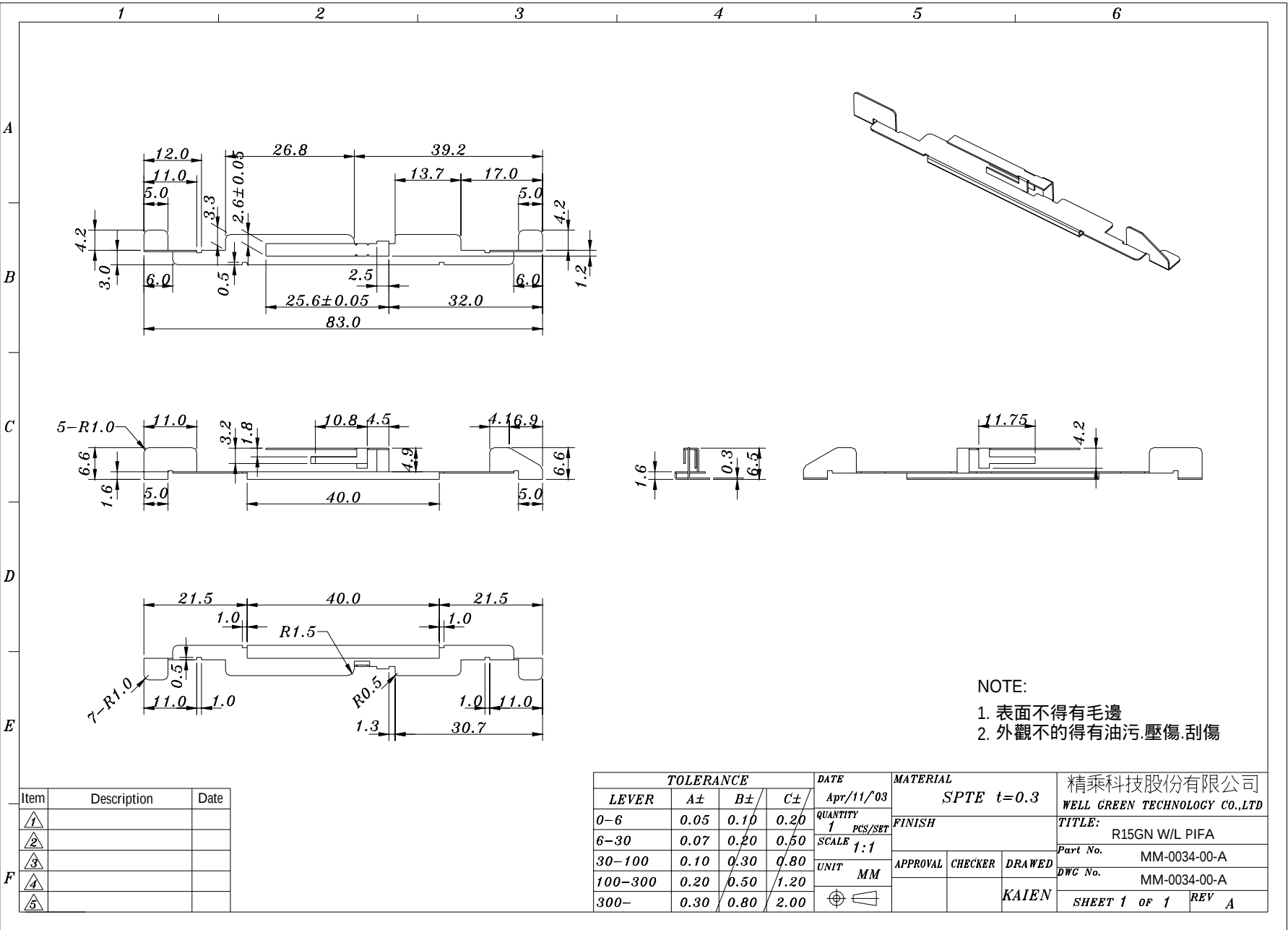
No. 20, Alley51 ,Lane 118,ShuangLian Sec.2,Mintzu Rd.,
PingJen City, TaoYuan Hsien, Taiwan, R.O.C

TEL: +886-3-420-6428 ; FAX: +886-3-420-6418

一、成品圖

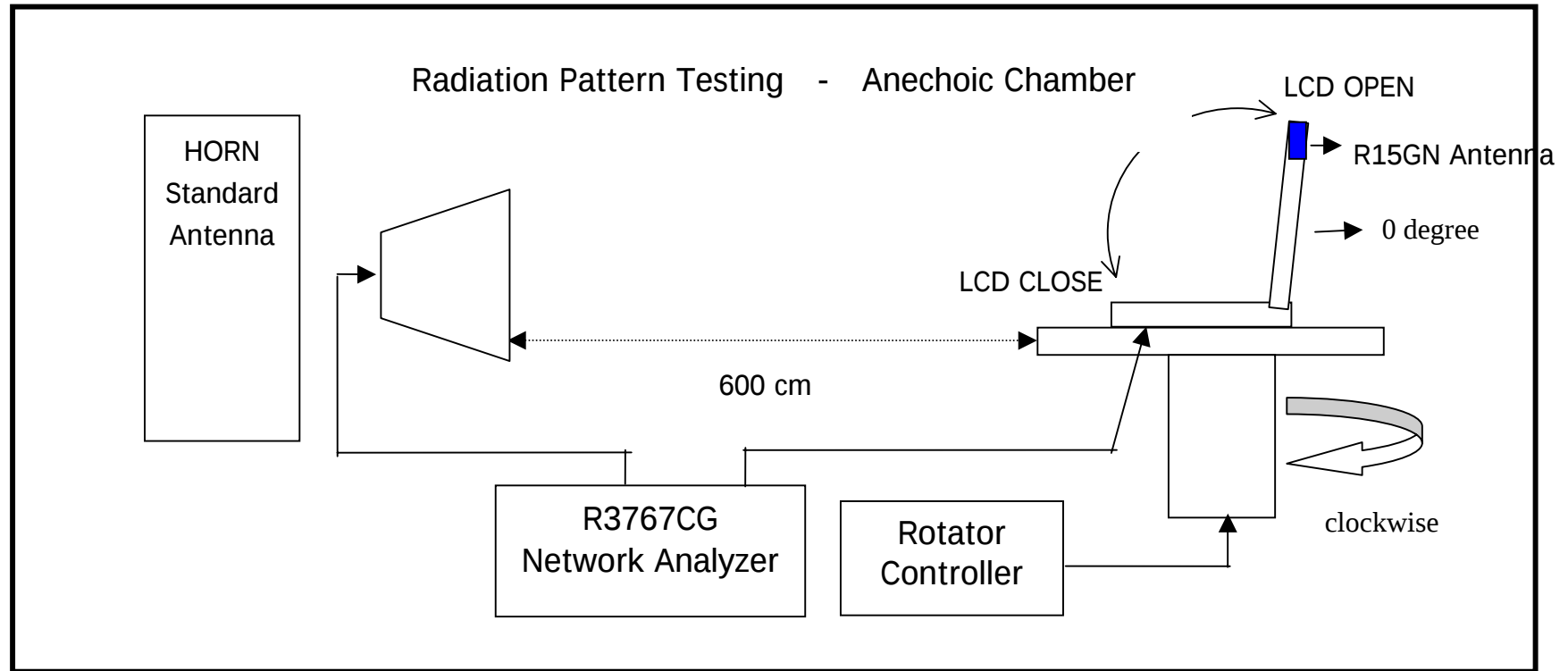


二、零件圖

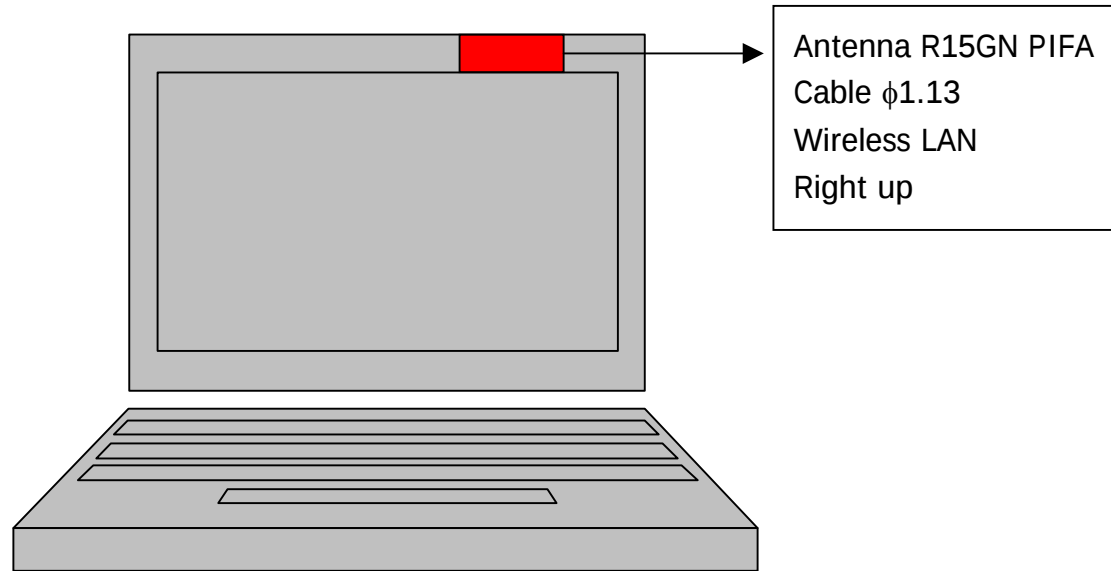


三、 802.11b and WIRELESS Antenna Testing Conditions :

1. Testing set up:



2. Mechanical dimensions



四、Free Space 電氣特性 (Antenna Electricity Characteristics) :

1. Return Loss



Antenna	Center freq. @MHz	BW @MHz	Return Loss		
			2.4GHz	2.45GHz	2.5GHz
R15GN	2450	333	-16.80	-22.59	-14.85

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CO. , Ltd

P/N : TWR15WIPI01A

Frequency Band : 2.4~2.5GHz

Date : 04 APR.,2003

2. VSWR



Antenna	Center freq. @MHz	BW @MHz	VSWR		
			2.4GHz	2.45GHz	2.5GHz
R15GN	2450	333	1.32	1.15	1.43

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CO., Ltd

P/N : TWR15WIPI01A

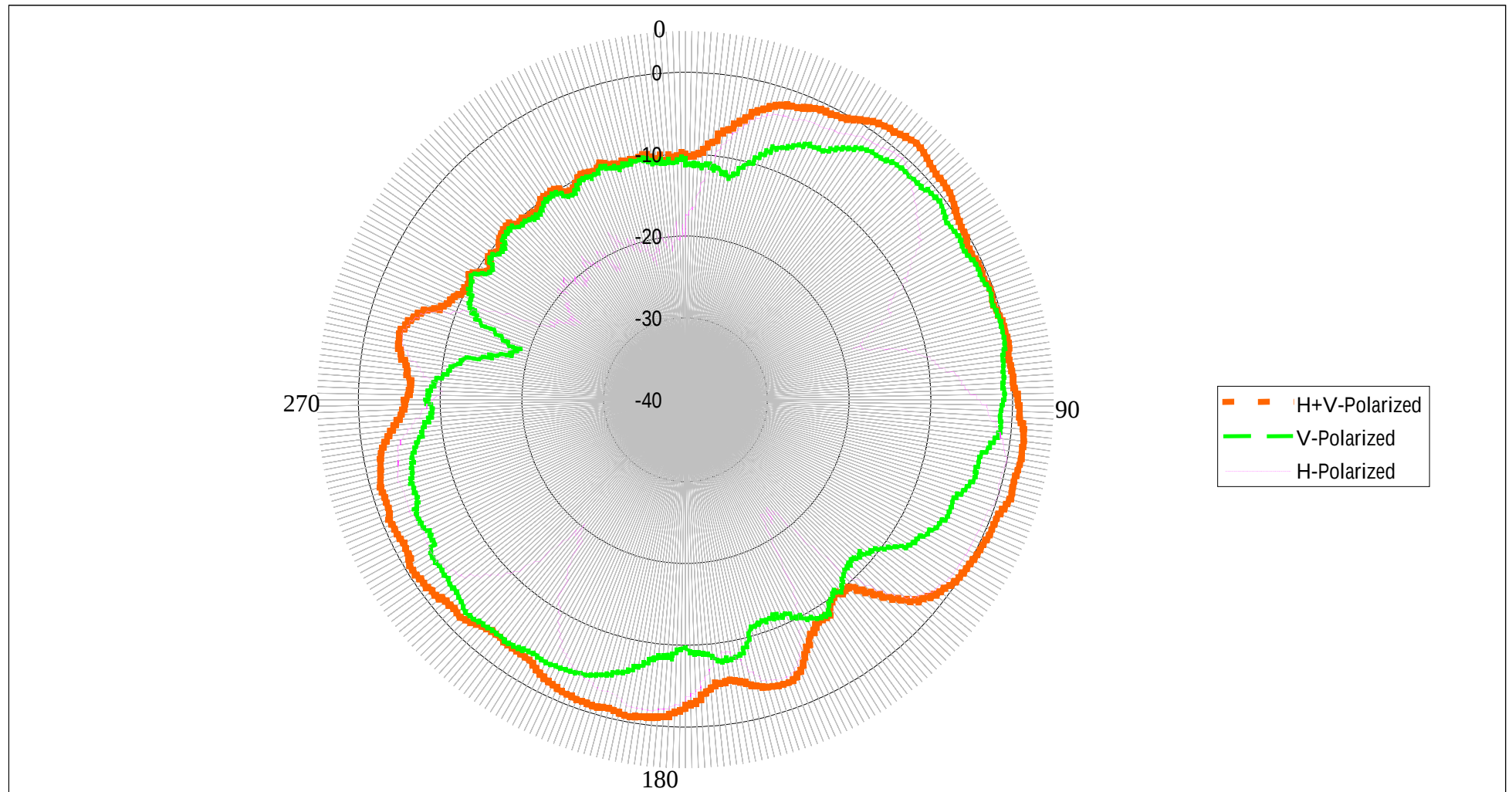
Frequency Band : 2.4~2.5GHz

Date : 04 APR.,2003

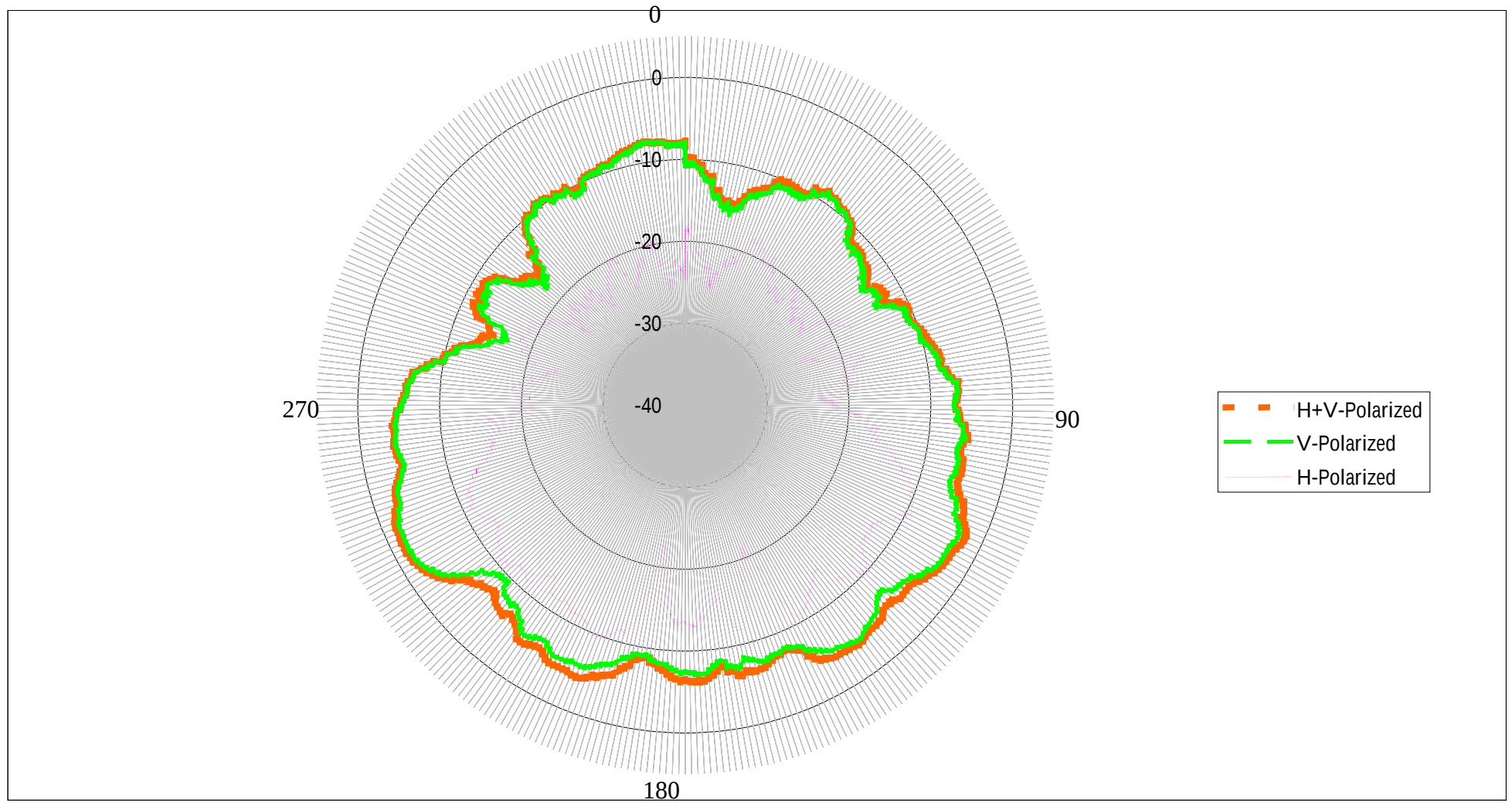
精乘科技股份有限公司 Well GreenTechnology CO., Ltd	P/N : TWR15WIP101A	Frequency Band : 2.4~2.5GHz	Date : 04 APR.,2003
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五、Free Space 天線輻射場形：

1. Radiation Pattern of XY Plane(Azimuth)-2.45GHz(open)



2. Radiation Pattern of XY Plane(Azimuth)-2.45GHz(close)



3. Peak Gain and Average Gain

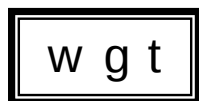
Antenna	Gain of XY Plane(Azimuth)-open		
	Polarization		2.45GHz
R15GN	V	Peak	-0.25
		Average	-5.20
	H	Peak	0.11
		Average	-5.25
	H+V	Peak	2.17
		Average	-2.21

Antenna	Gain of XY Plane(Azimuth)-close		
	Polarization		2.45GHz
R15GN	V	Peak	-1.88
		Average	-7.23
	H	Peak	-9.27
		Average	-15.13
	H+V	Peak	-1.44
		Average	-6.58

六、 SPECIFICATIONS:

- Electrical Properties

Frequency Range	: 2.4~2.5GHz
Impedance	: 50Ohms nominal
VSWR	: 2.0
Peak Gain	: -5.0dBi peak gain 3dBi
Standard Connector	: I-PEX Connector



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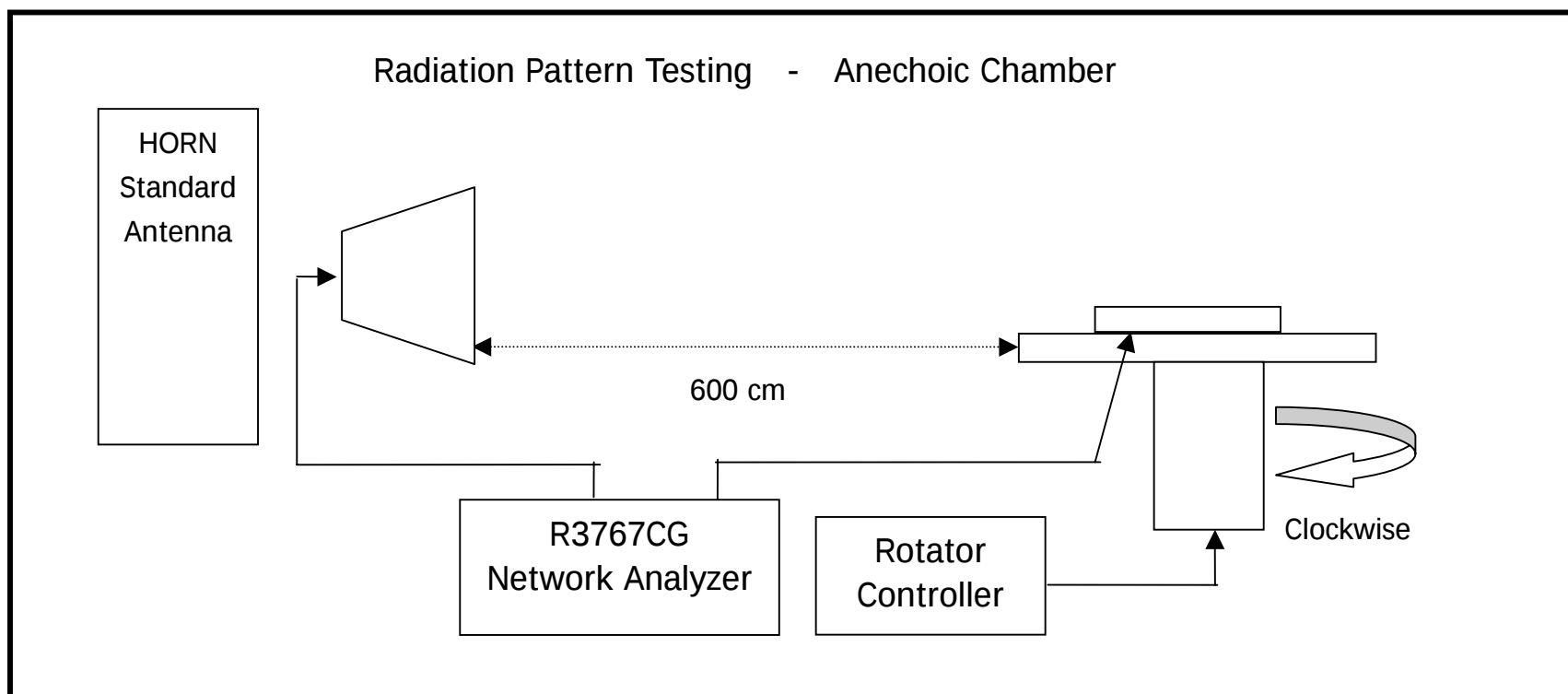
TWINHEAD T8

Antenna Test Report

RD Manager	Supervisor	RD engineer	Sales engineer
Jackson	Johnson	Tony	Jerry

802.11b Antenna Testing Conditions:

1. Testing set up:

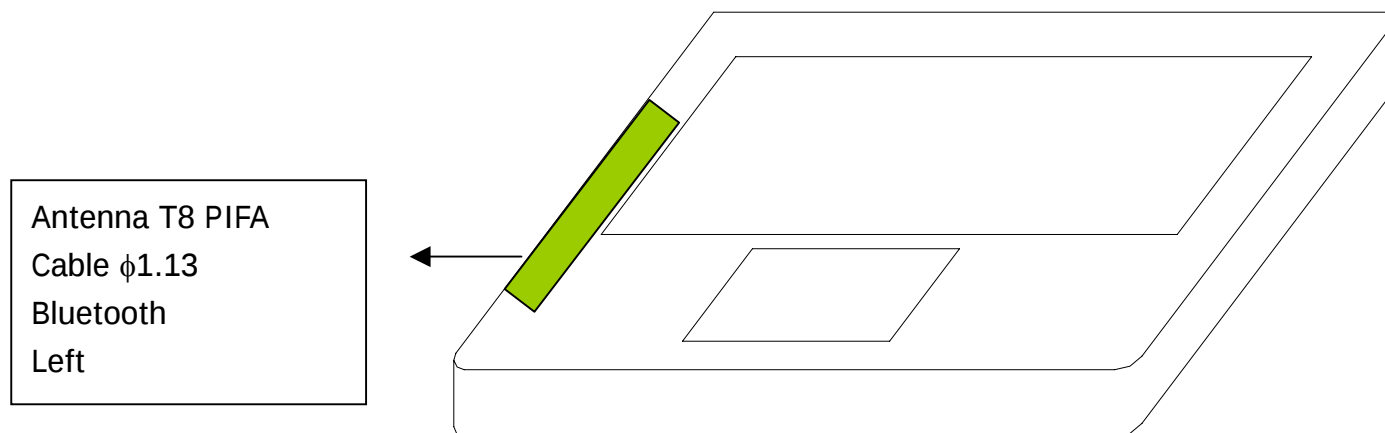


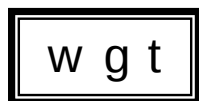


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2. Mechanical dimensions





Test results-Left

Antenna	Application	Cable dia. Φ mm
T8	Bluetooth	1.13

1.VSWR

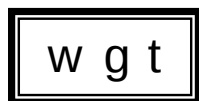
Antenna	Center freq. @MHz	BW @MHz	VSWR		
			2.4GHz	2.45GHz	2.5GHz
T8	2450		1.57	1.34	1.17



2. Return Loss

Antenna	Center freq. @MHz	BW @MHz	Return Loss		
			2.4GHz	2.45GHz	2.5GHz
T8	2450		-12.90	-17.03	-22.24





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3. Smith Chart



2003/8/29

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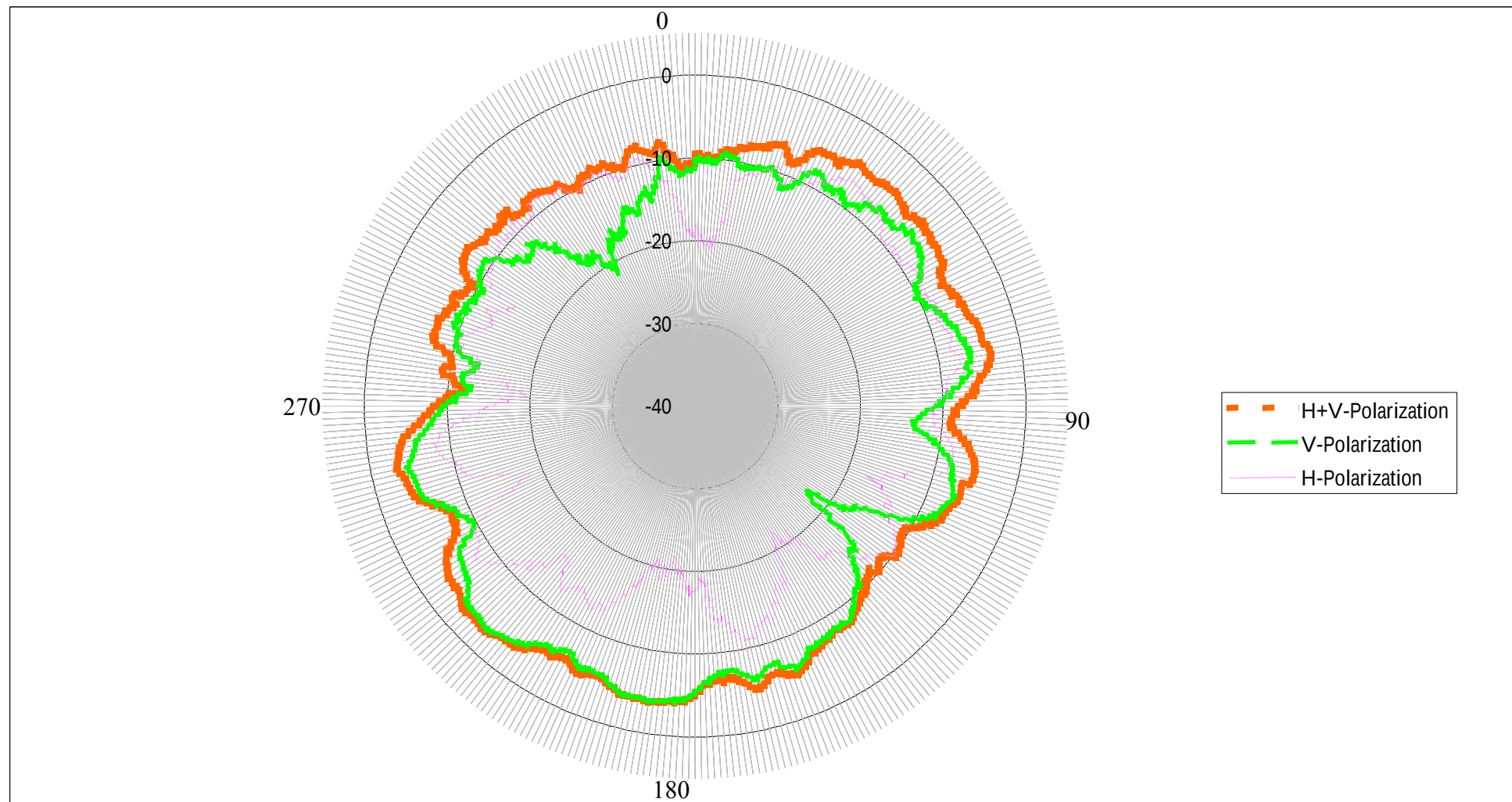
2003wgt2003wgt2003wgt2003



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4. Radiation Pattern of XY Plane(Azimuth)-2.45GHz



2003/8/29

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2003wgt2003wgt2003wgt2003



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5. Peak Gain and Average Gain

Antenna	Gain of XY Plane(Azimuth)		
	Polariztion		2.45GHz
T8	V	Peak	-3.04
		Average	-8.03
	H	Peak	-6.58
		Average	-11.11
	H+V	Peak	-2.65
		Average	-6.29