

APPROVAL SHEET

For : 藍天電腦股份有限公司
CLEVO Computer Company

MODEL : L390T

wgt P/N : SK390BLPI01+B

DATE : 20 JUN.,2008

DESCRIPTION : ANTENNA BLUETOOTH 2.4G PIFA BT 140MM 精乘 L390T(無鉛)

CUSTOMER P/N : 6-23-7L39T-021

Manager	Chief	Engineer
Johnson	Joy	Rick

Check	Responder



精乘科技股份有限公司

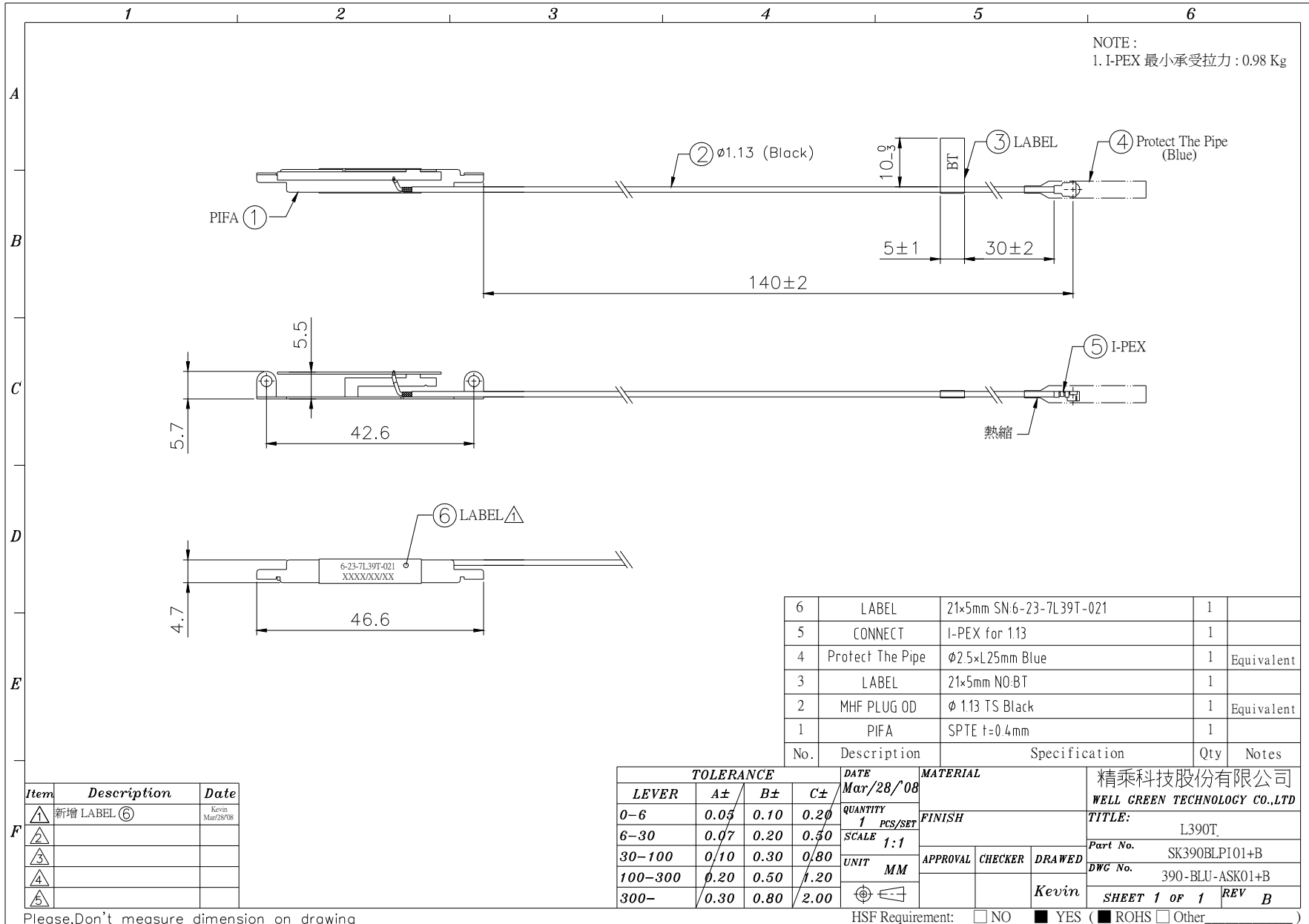
Well Green Technology Co., Ltd.

桃園縣平鎮市民族路雙連二段 118 巷 51 弄 20 號

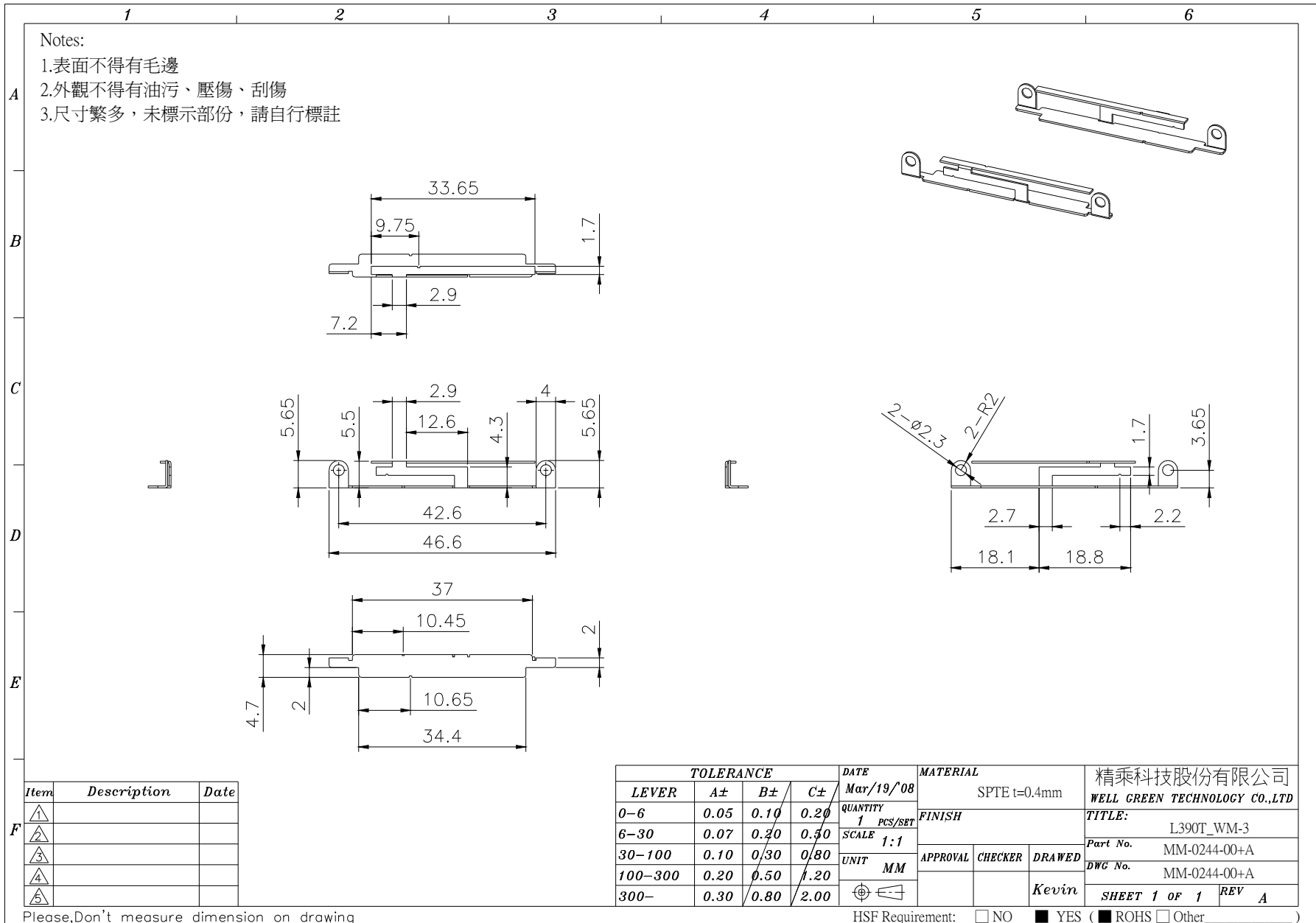
No. 20, Alley51 ,Lane 118,ShuangLian Sec.2,Mintzu Rd.,
PingJen City, TaoYuan Hsien, Taiwan, R.O.C

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

一、成品圖



二、零件圖



三、BOM

	1	2	3	4	5	6
	B O M					
A	<i>ITEM</i>	<i>DESCRIPTION</i>	<i>SPECIFICATION</i>	<i>Q'TY</i>	<i>VENDER</i>	<i>P/N</i>
	1	PIFA ANTENNA	L390T WM-3 WiMAX PIFA	1		MM-0244-00+A
	2	COAXIAL CABLE	Wonderful A3132TS001 素材 φ 1.13*164mm(Black)	1		CA-0058-80+A
	3	CONNECTOR	I-PEX Connector	1		CN-0032-00+A
B	4	Label	L21*W5*T0.08 mm(BT)	1		LA-0023-12+A
	5	塑膠保護套	φ 2.5* 25mm (Blue)	1		TB-2508-02+A
	6	Label	L21*W5*T0.08 mm(6-23-7L39T-021)	1		LA-0023-14+A
	7					
C	8					
	9					
	10					
	11					
D	12					
	13					
	14					
E	15					

Item	Description	Date	TOLERANCE				DATE 96/12/25	MATERIAL	精乘科技股份有限公司 WELL GREEN TECHNOLOGY CO.,LTD
			LEVER	A±	B±	C±			
△	新增 LABEL ⑥	Kevin Mar/28/08	0-6	0.05	0.10	0.20	QUANTITY 1 PCS/SET	FINISH	TITLE: L390T
△			6-30	0.07	0.20	0.50	SCALE 1:1		Part No. SK390BLPI01+B
△			30-100	0.10	0.30	0.80	UNIT MM	APPROVAL	DWG No. 390-BLU-BSK01+B
△			100-300	0.20	0.50	1.20		CHECKER	SHEET 1 OF 1 REV B
△			300-	0.30	0.80	2.00		DRAWED Rick	

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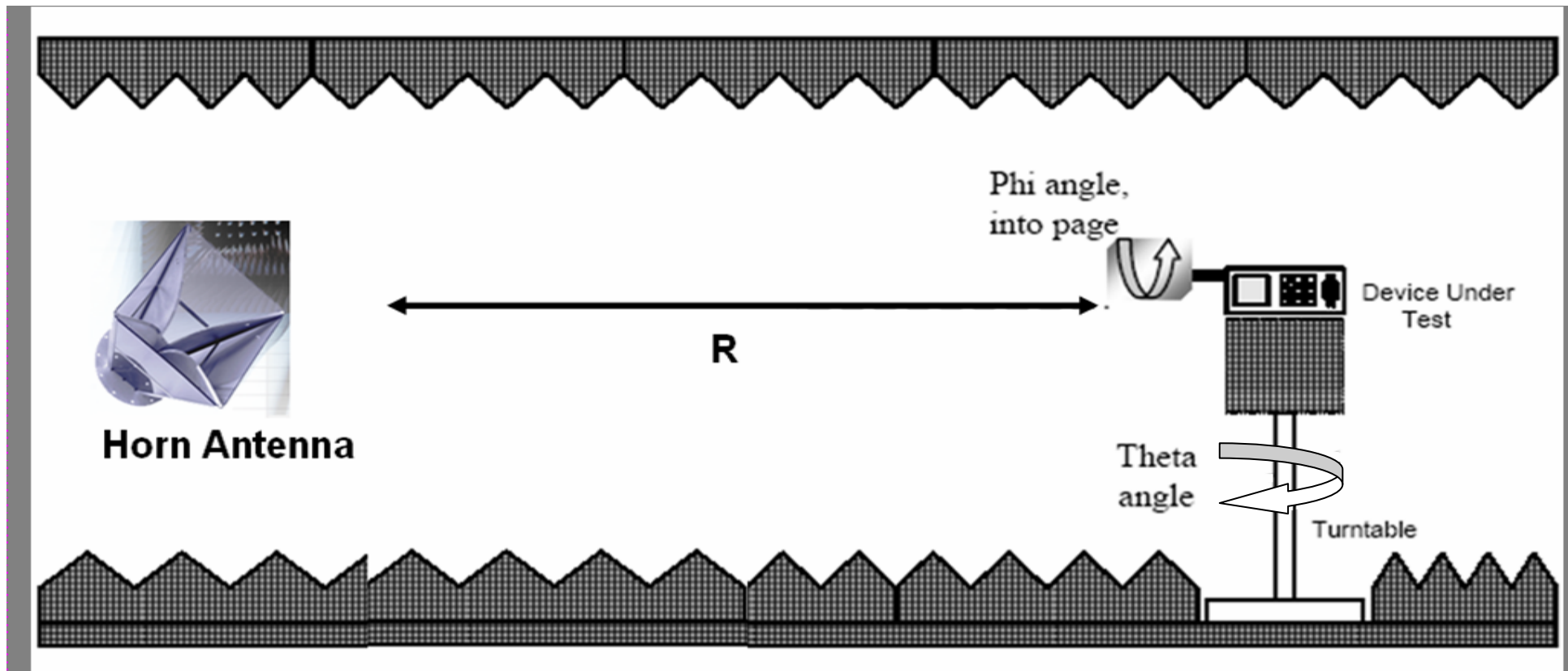
1. Test Equipment
2. Antenna Configuration

II. Antenna Electricity Characteristics

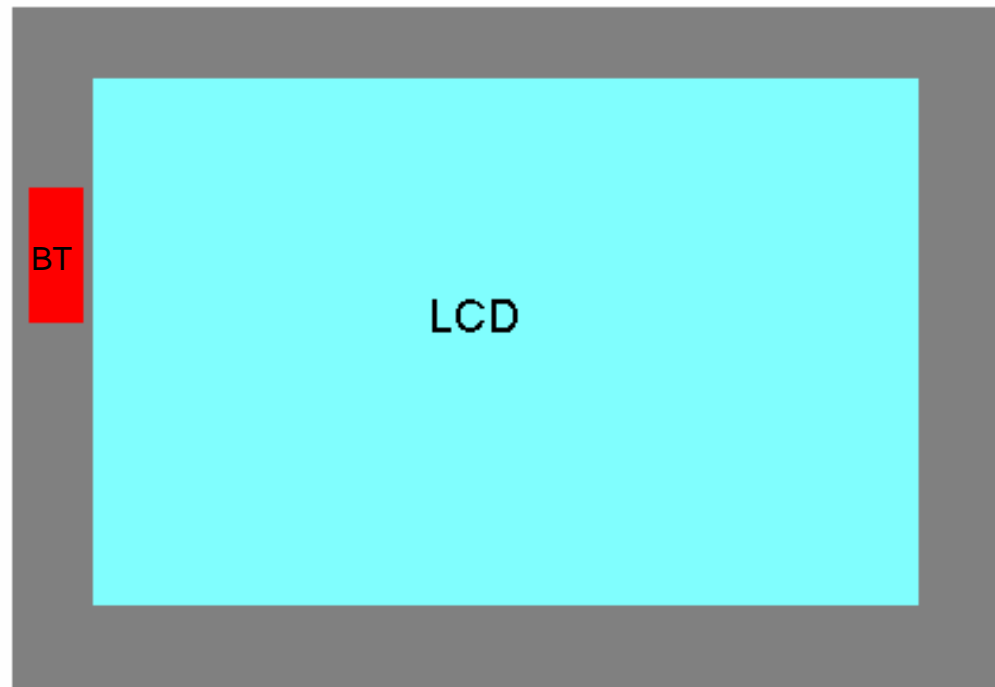
1. Return LOSS
2. VSWR
3. Smith Chart
4. Free Space Radiation Pattern

I 、 Antenna Testing Conditions:

1. Testing set up:



2. Mechanical dimensions



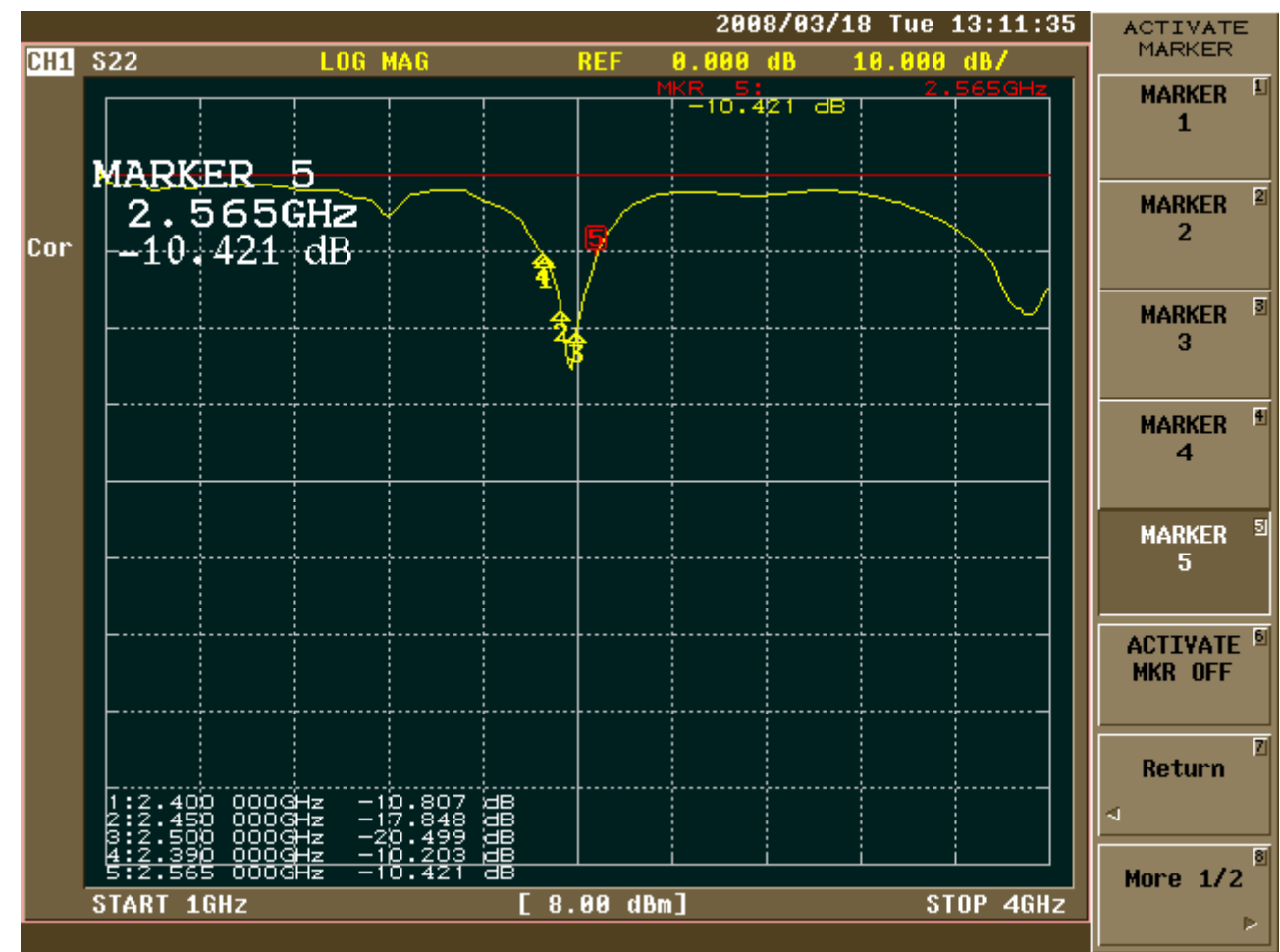
Antenna BT

	2400	2450	2500
Tot. Rad. Pwr. (dBm)	-4.66	-4.45	-5.54
Peak EIRP (dBm)	1.07	-0.69	-1.61
Directivity (dBi)	5.74	3.75	3.93
Efficiency (dB)	-4.66	-4.45	-5.54
Gain (dBi)	1.07	-0.69	-1.61
Front/Back Ratio (dB)	-3.77	-5.37	-7.49
Boresight Angle (°)	81.29	81.29	95.81
BeamWidth (°)	92.20	91.34	107.54
+BeamWidth (°)	87.85	85.14	102.03
-BeamWidth (°)	4.35	6.20	5.50
Maximum Power (dBm)	1.07	-0.69	-1.61
Minimum Power (dBm)	-12.29	-11.25	-12.87
Average Power (dBm)	-5.46	-4.89	-6.02
Max/Min Ratio (dB)	13.36	10.55	11.26
Max/Avg Ratio (dB)	5.74	3.75	3.93
Min/Avg Ratio (dB)	-7.63	-6.80	-7.33
Average Gain (dB)	-4.66	-4.45	-5.54

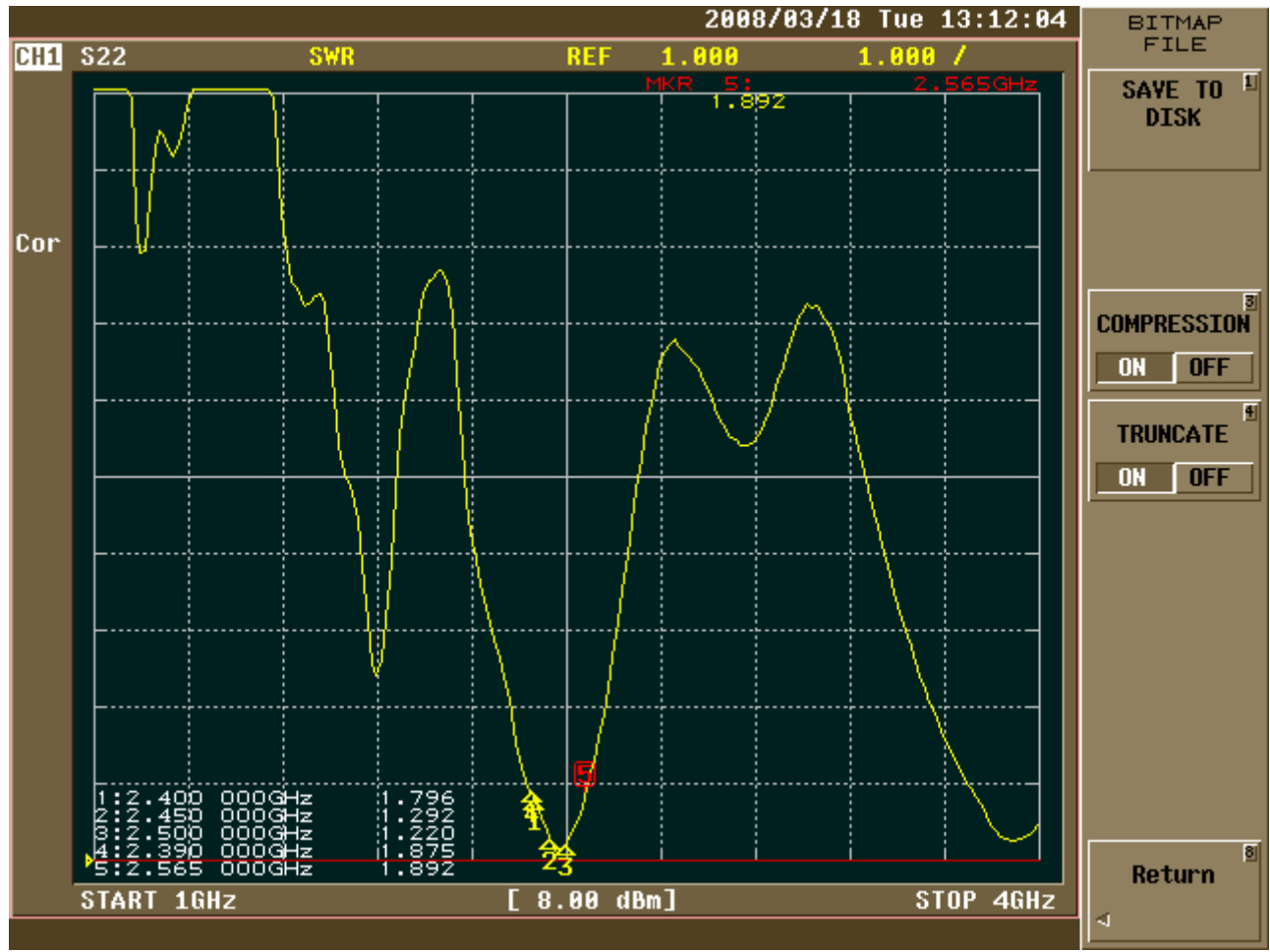
II. Test results

L390T	BT	Cable diameter : 1.13mm
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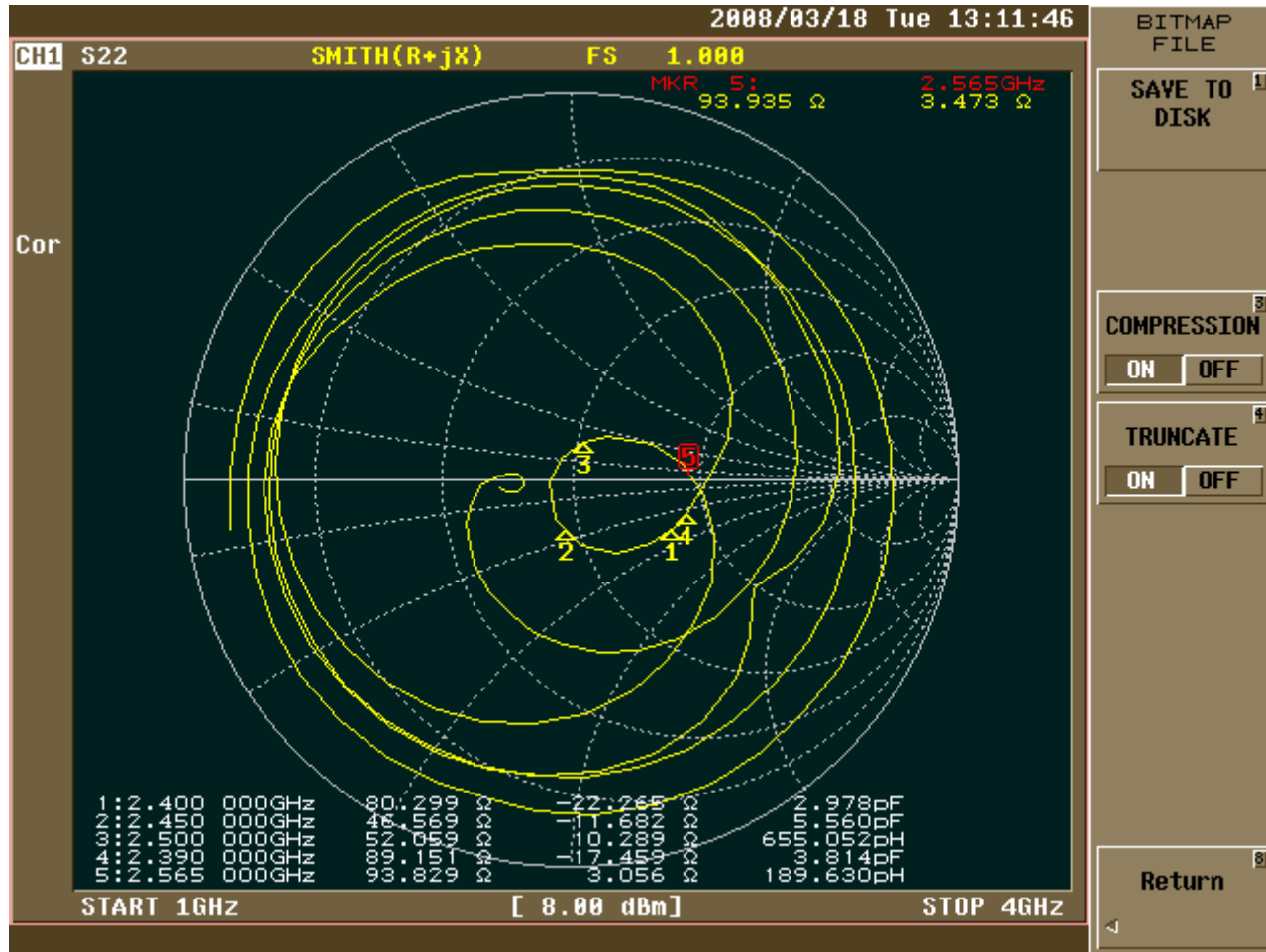
1. Return Loss



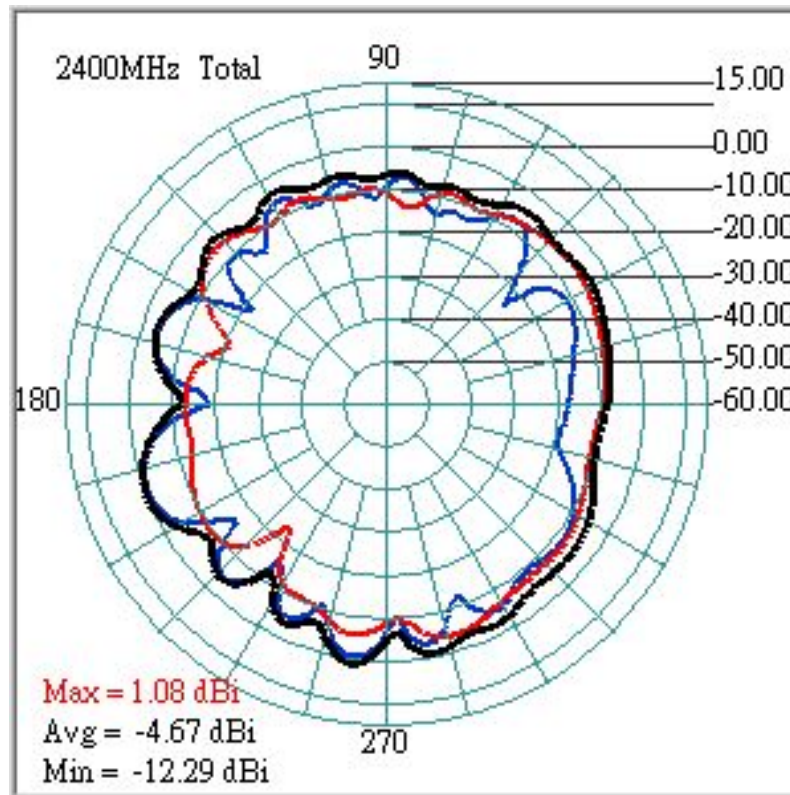
2. VSWR



3. Smith Chart



4. Radiation Pattern of XY Plane(Azimuth)-(Open)



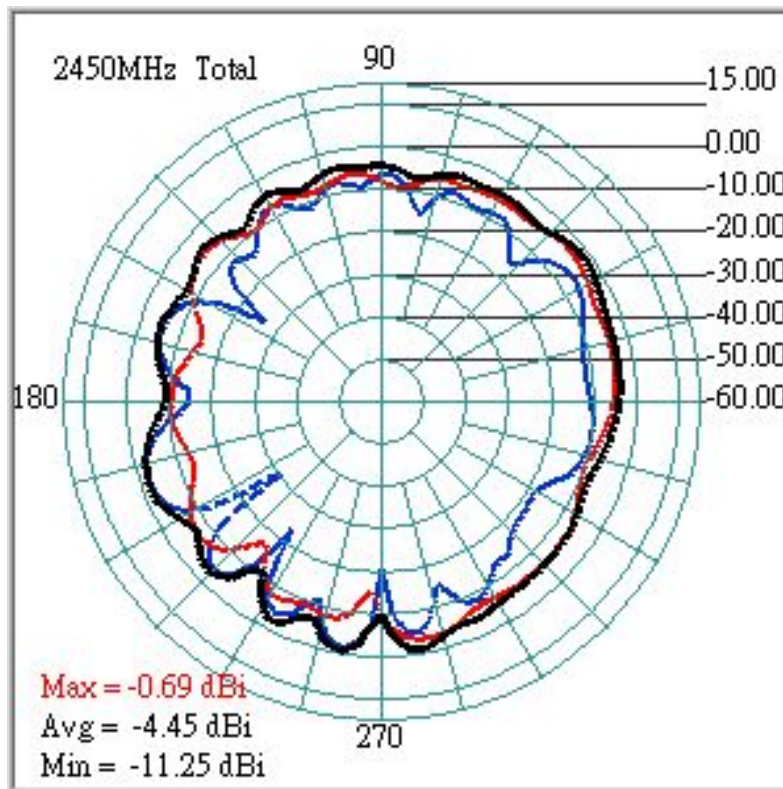
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

Center Frequency	2400 MHz
Vertical peak Gain (dBi)	-0.39
Vertical Average Gain (dBi)	-7.48
Horizontal peak Gain (dBi)	-3.52
Horizontal Average Gain (dBi)	-8.53
Hori+Vert peak Gain (dBi)	1.07
Hori+Vert Average Gain (dBi)	-4.66

5. Radiation Pattern of XY Plane(Azimuth)-(Open)



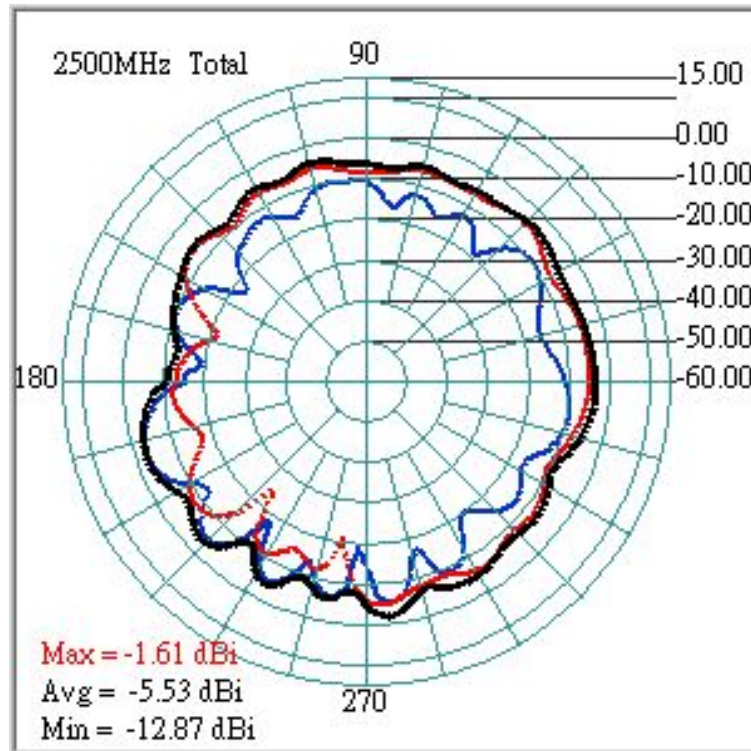
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

Center Frequency	2450 MHz
Vertical peak Gain (dBi)	-1.33
Vertical Average Gain (dBi)	-8.17
Horizontal peak Gain (dBi)	-2.92
Horizontal Average Gain (dBi)	-6.84
Hori+Vert peak Gain (dBi)	-0.69
Hori+Vert Average Gain (dBi)	-4.45

6. Radiation Pattern of XY Plane(Azimuth)-(Open)



plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

Center Frequency	2500 MHz
Vertical peak Gain (dBi)	-3.14
Vertical Average Gain (dBi)	-10.1
Horizontal peak Gain (dBi)	-4.52
Horizontal Average Gain (dBi)	-7.88
Hori+Vert peak Gain (dBi)	-1.61
Hori+Vert Average Gain (dBi)	-5.54

四、SPECIFICATIONS:

● Electrical Properties

Frequency Range	: 2.4~2.5GHz
Impedance	: 50Ohms nominal
VSWR	: ≤ 2.0
Peak Gain	: $-5.0\text{dBi} \leq \text{peak gain} \leq 3\text{dBi}$
Standard Connector	: I-PEX Connector