

DATE :Jun . 24 , 2003

CUSTOMER: QUANTA COMPUTER INC.

APPROVAL REPORT

MODEL	EW1
DESCRIPTION	
SUPPLIER P/N	
CUSTOMER P/N	
FILE P/N	

FAVORTRON			Customer	
Manager	Supervisor	Engineer		

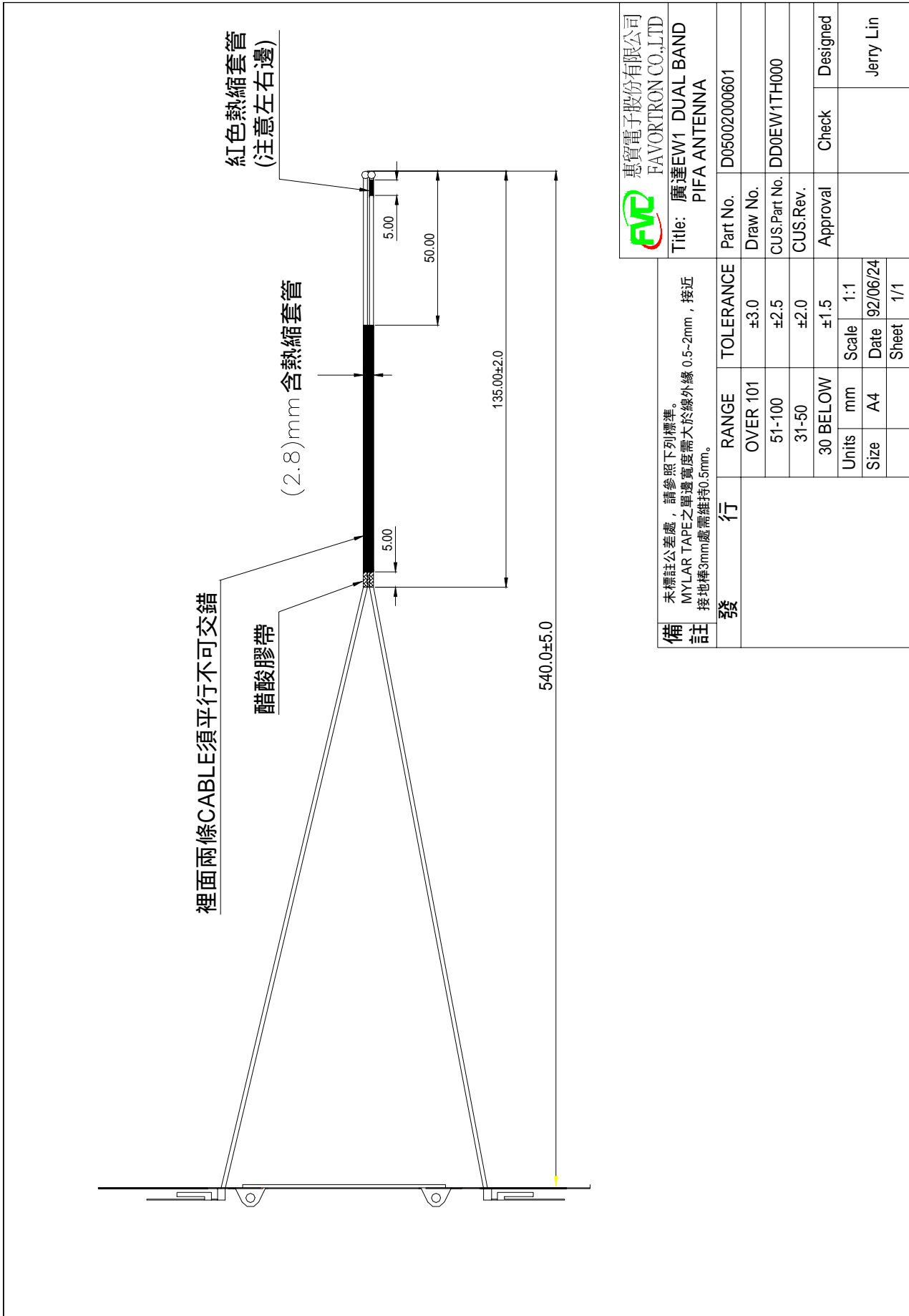



惠寶電子股份有限公司
FAVORTRON CO., LTD

台北縣中和市中正路 866 號 17F TEL: (02) 8227-5669
17nd F, NO. 866, Jungjeng Rd., FAX: (02) 8227-5667
Junghe City, Taipei Hsien, Taiwan 235 R.O.C

1. Antenna Drawing

1.1 Drawing of EW1 PIFA Antenna



 惠質電子股份有限公司 FAVORTRON CO.,LTD		Title: 廣達EW1 DUAL BAND PIFA ANTENNA	
備註 未標註公差處，請參照下列標準。 MYLAR TAPE之單邊寬度需大於線外緣0.5-2mm，接近 接地樺3mm處需維持0.5mm。		Part No.	D05002000601
發行	RANGE	TOLERANCE	Draw No.
	OVER 101	±3.0	DD0EW1TH000
	51-100	±2.5	CUS.Part No.
	31-50	±2.0	CUS.Rev.
	30 BELOW	±1.5	Approval
Units	mm	Scale	1:1
Size	A4	Date	92/06/24
		Sheet	1/1
		Check	Designed
			Jerry Lin

1.2 Drawing of 888z3.0 PCB (Hinge Cover) Antenna

B O M

ITEM	COMPONENT	Q'TY	DESCRIPTION	FVC P/N	REMARK
1	EW1 PIFA	1	160x4.8x6.3mm	F04001085001	
2	Conn+O1.5 Cable	2	I-peg + kurabe550mm 單頭	G04007171001	
3	TUBE	1	O1.5x5mm (RED)	B02009173999	
4	TUBE	1	O2.0X80mm (BLACK)	B02009172999	
5	醋酸膠帶	1	5x15mm	G01002157002	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



惠質電子股份有限公司
FAVORTRON CO.,LTD

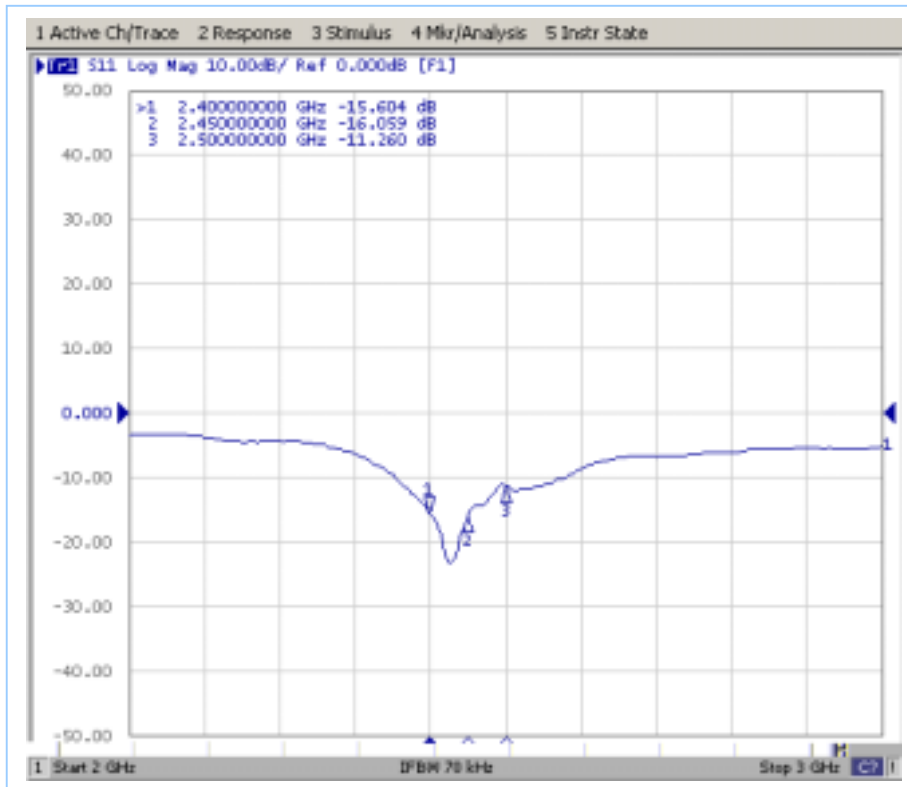
Title: 廣達EW1 DUAL BAND
PIFA ANTENNA

Part No.	D05002000601
Draw No.	
CUS.Part No.	DD0EW1TH000
CUS.Rev.	
Approval	Check
	Designed
	Jerry Lin

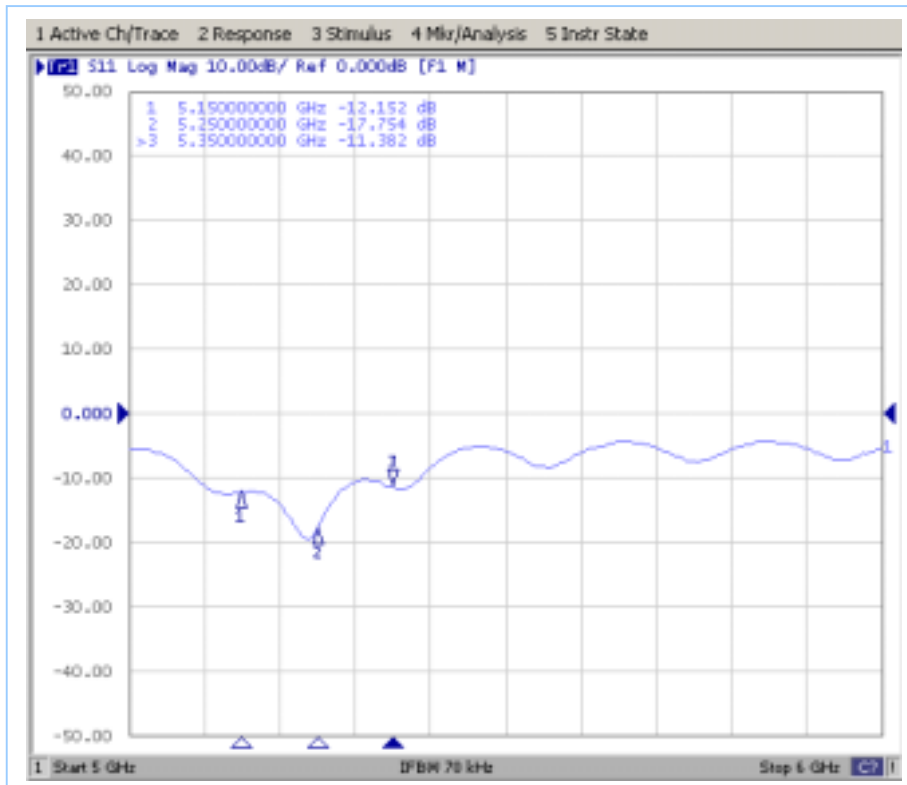
發	行	備	註
Date	92/06/24	Sheet	1/1

1. EW1 W/L ANT. Return LOSS In Note Book

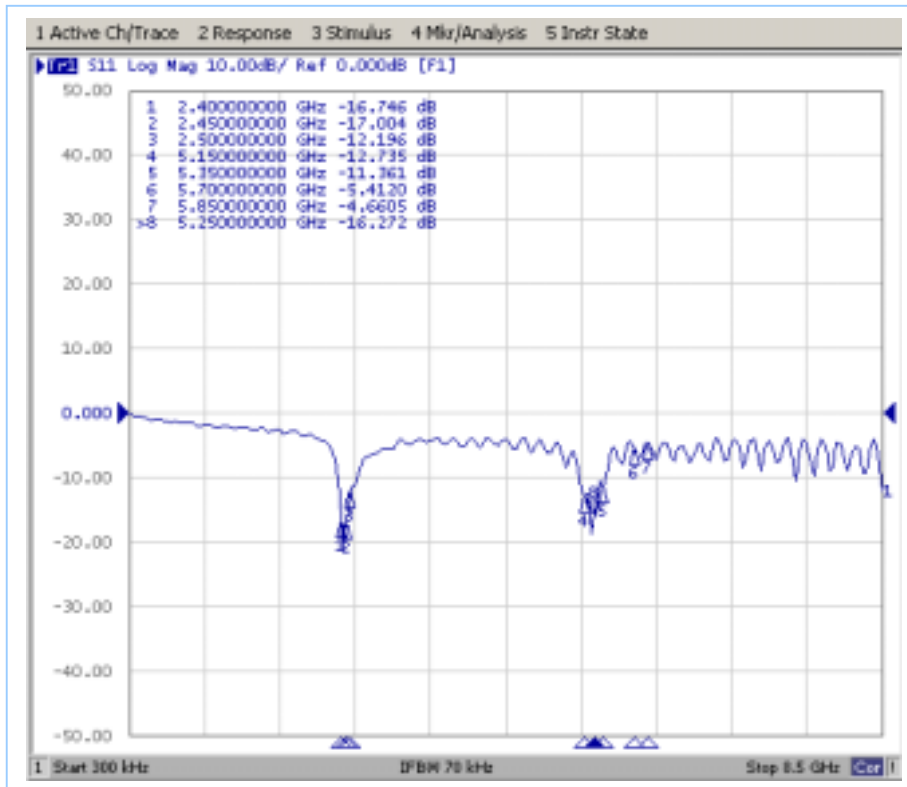
1.1 LCD Right Upper / PIFA ANT. / 2.4~ 2.5GHz



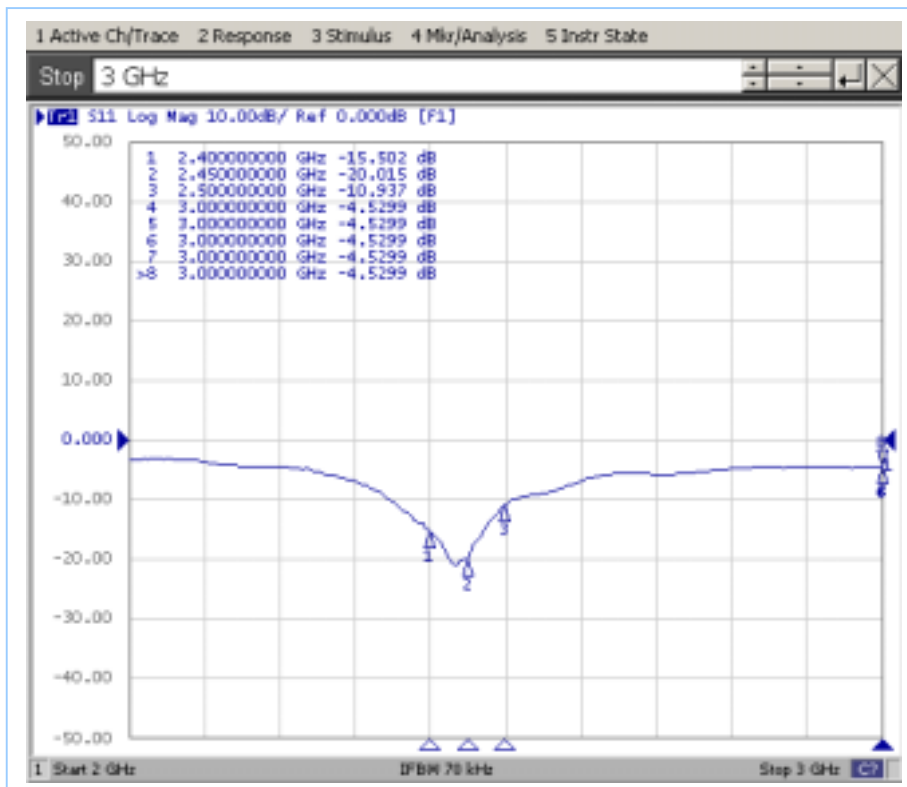
1.2 LCD Right Upper / PIFA ANT. / 5.15~ 5.35GHz



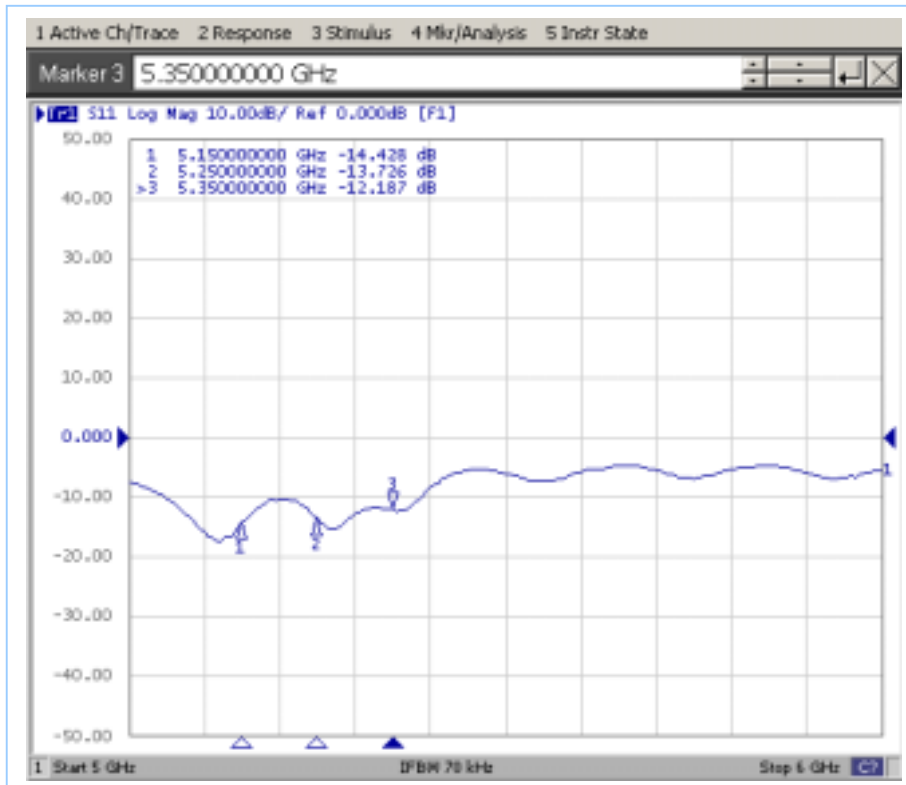
1.3 LCD Right Upper / PIFA ANT. / 2.4~ 2.5GHz & 5.15~ 5.35GHz



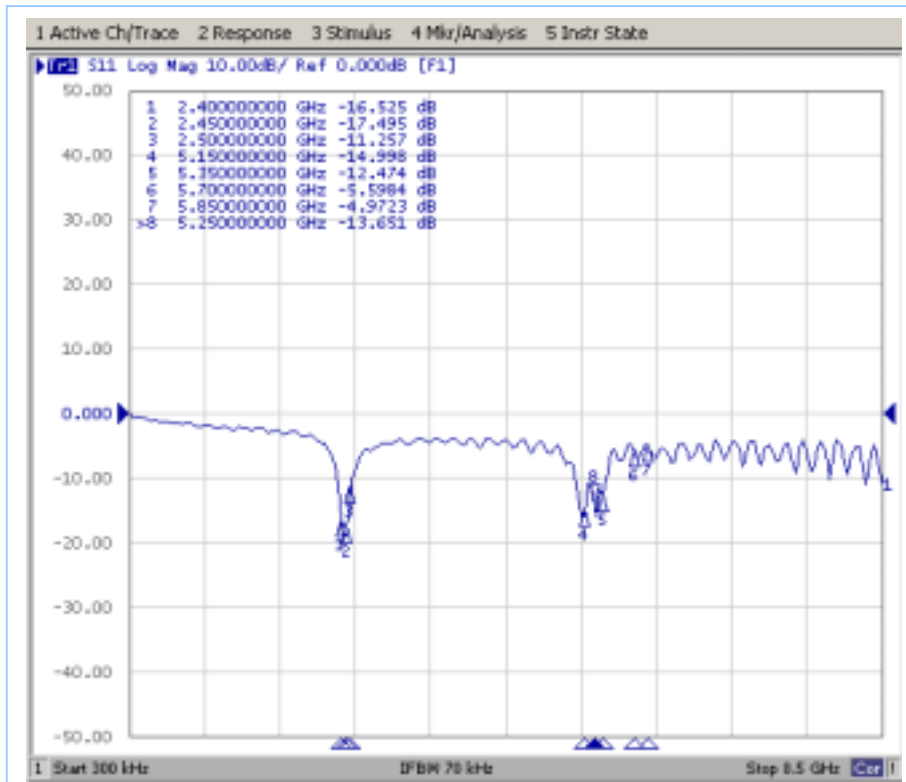
1.4 LCD Left Upper / PIFA ANT. / 2.4~ 2.5GHz



1.5 LCD Left Upper / PIFA ANT. / 5.15~ 5.35GHz

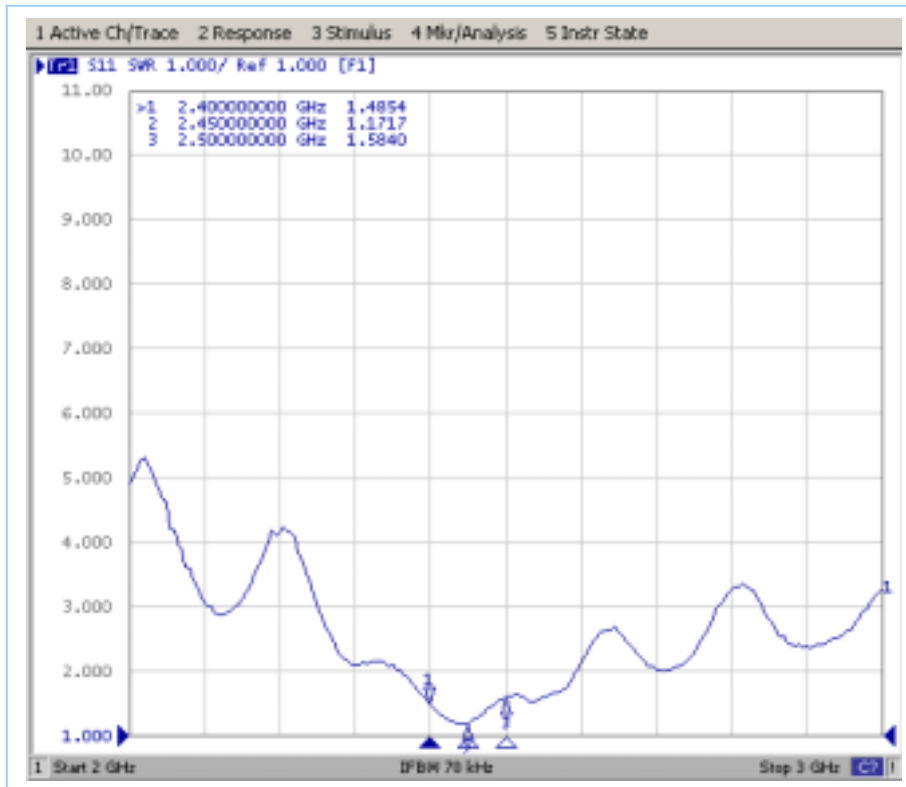


1.6 LCD Left Upper / PIFA ANT. / 2.4~ 2.5GHz & 5.15~ 5.35GHz

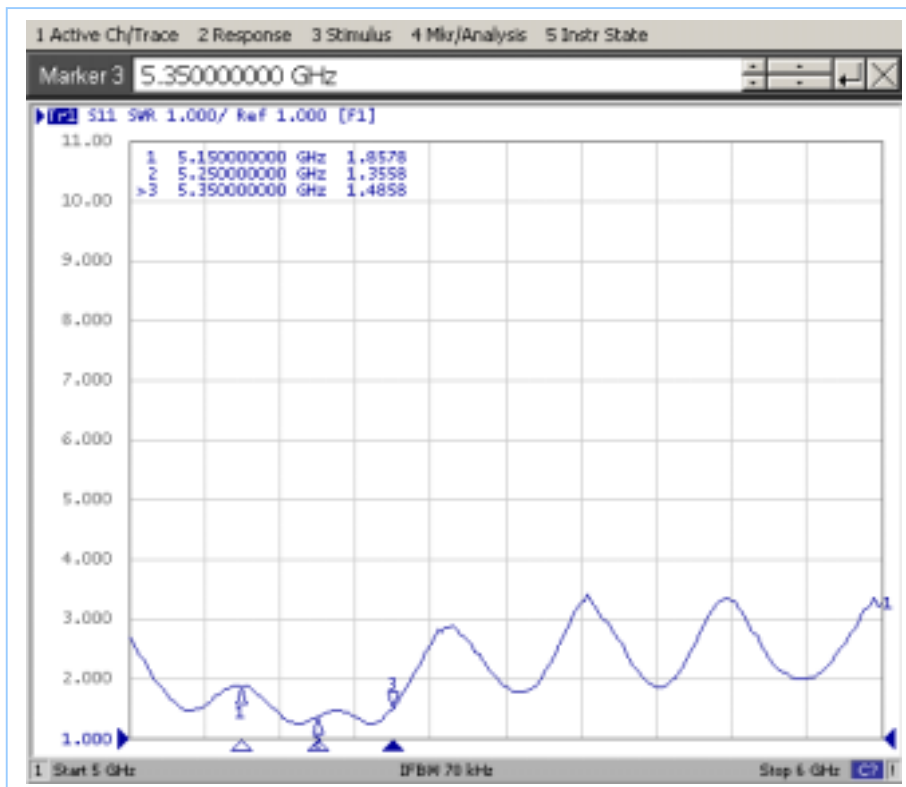


2. BTW30 PVT2 W/L ANT. VSWR In Note Book

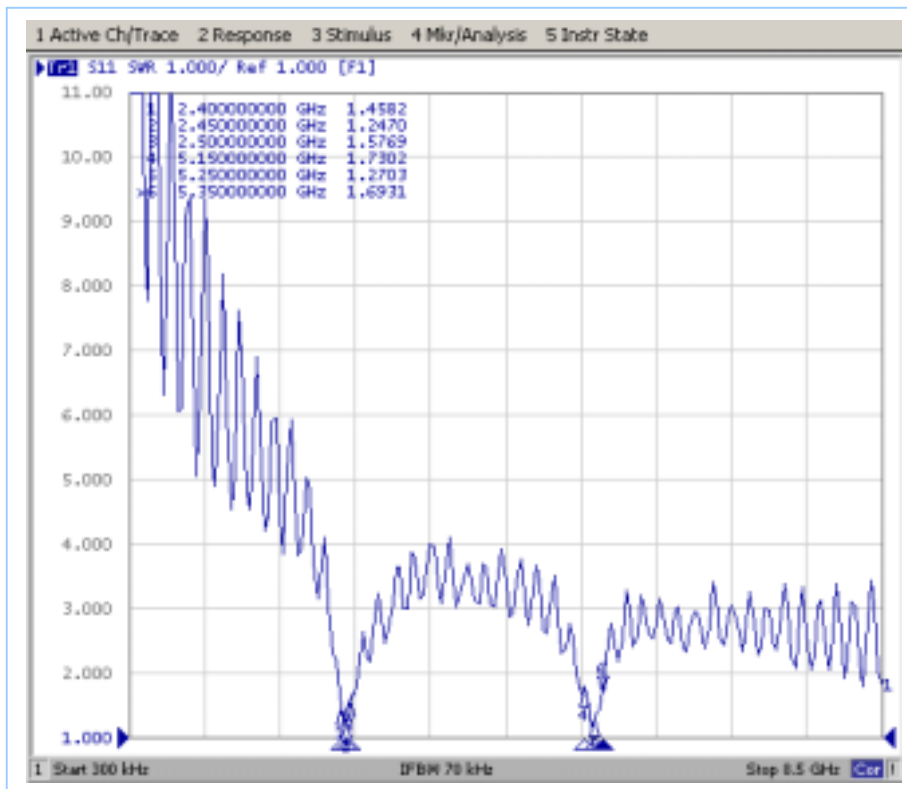
2.1 LCD Right Upper / PIFA ANT. / 2.4~ 2.5GHz



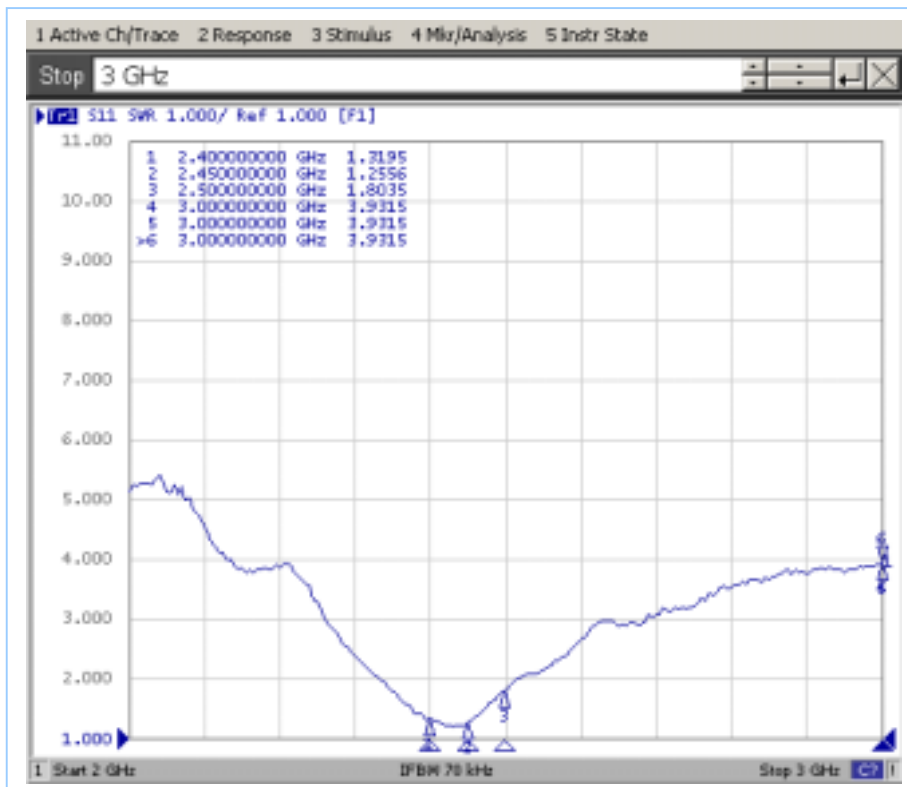
2.2 LCD Right Upper / PIFA ANT. / 5.15~ 5.35GHz



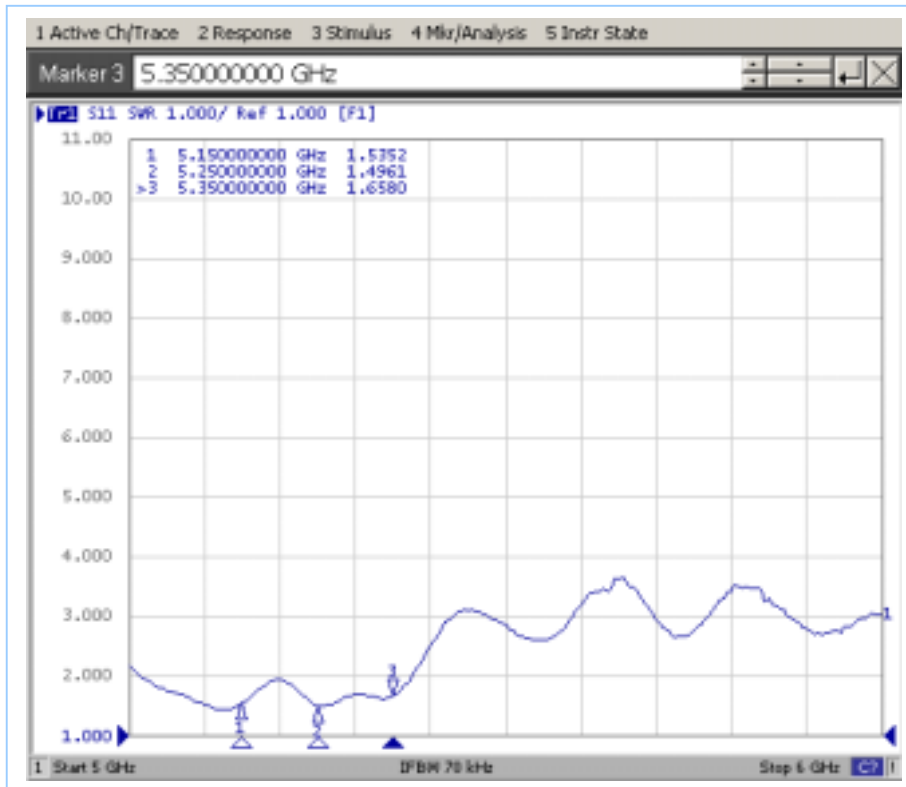
2.3 LCD Right Upper / PIFA ANT. / 2.4~ 2.5GHz & 5.15~ 5.35GHz



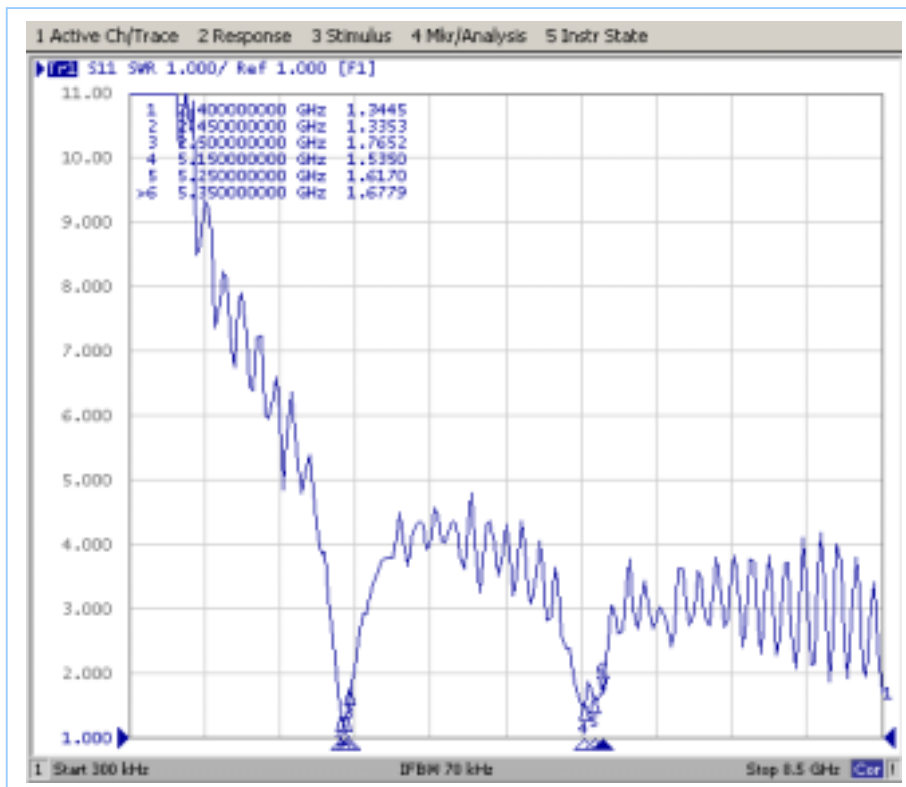
2.4 LCD Left Upper / PIFA ANT. / 2.4~ 2.5GHz



2.5 LCD Left Upper / PIFA ANT. / 5.15~ 5.35GHz

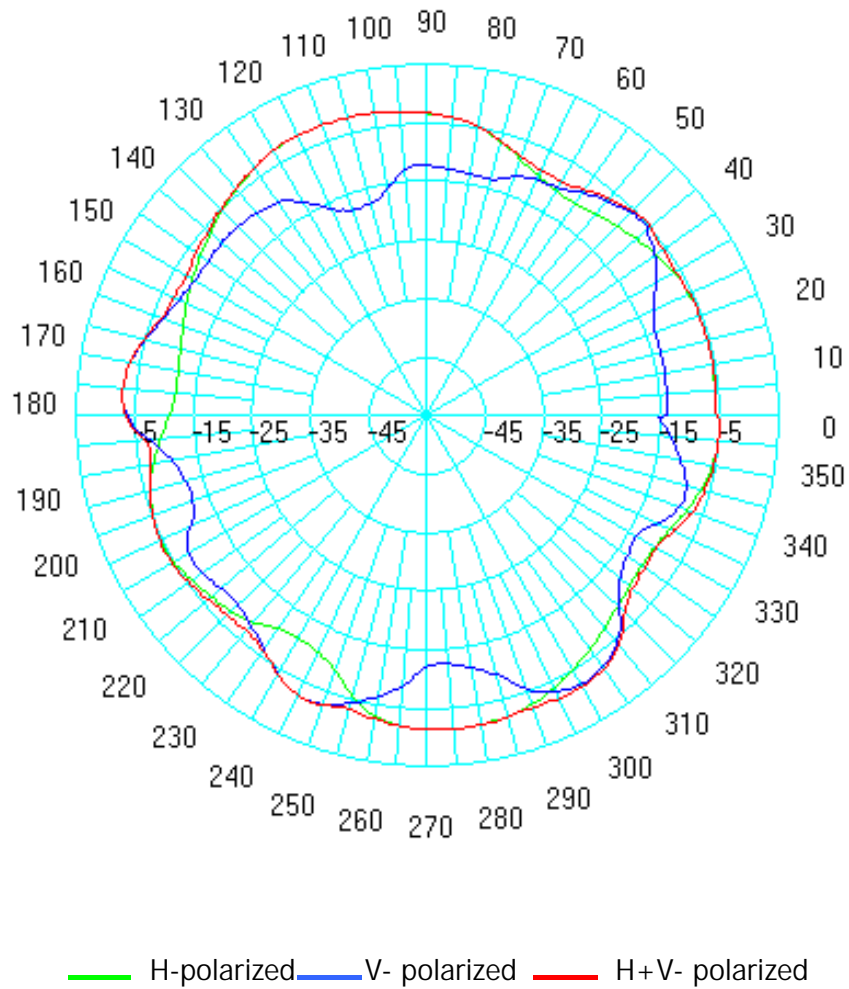


2.6 LCD Left Upper / PIFA ANT. / 2.4~ 2.5GHz & 5.15~ 5.35GHz



3. Gain & PATTERN – W/L / PIFA ANT.

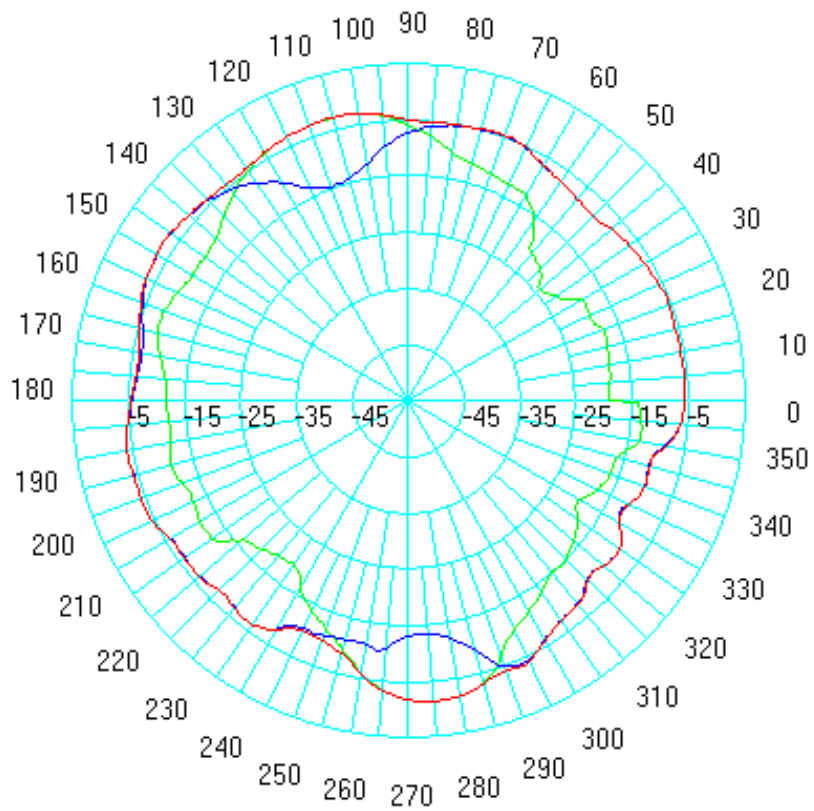
3.1.1 OPEN / 2.45GHz / LCD RIGHT UPPER



Gain data

Antenna	Gain of XY Plane(Azimuth)-Open		
	Frequency	2.45GHz	
PIFA	H	Peak	-1.27
		Avg.	-6.52
	V	Peak	-2.19
		Avg.	-9.47
	H + V	Peak	-1.26
		Avg.	-4.9
		%> -5dBi	46.54%

3.1.2 OPEN / 5.25GHz / LCD RIGHT UPPER



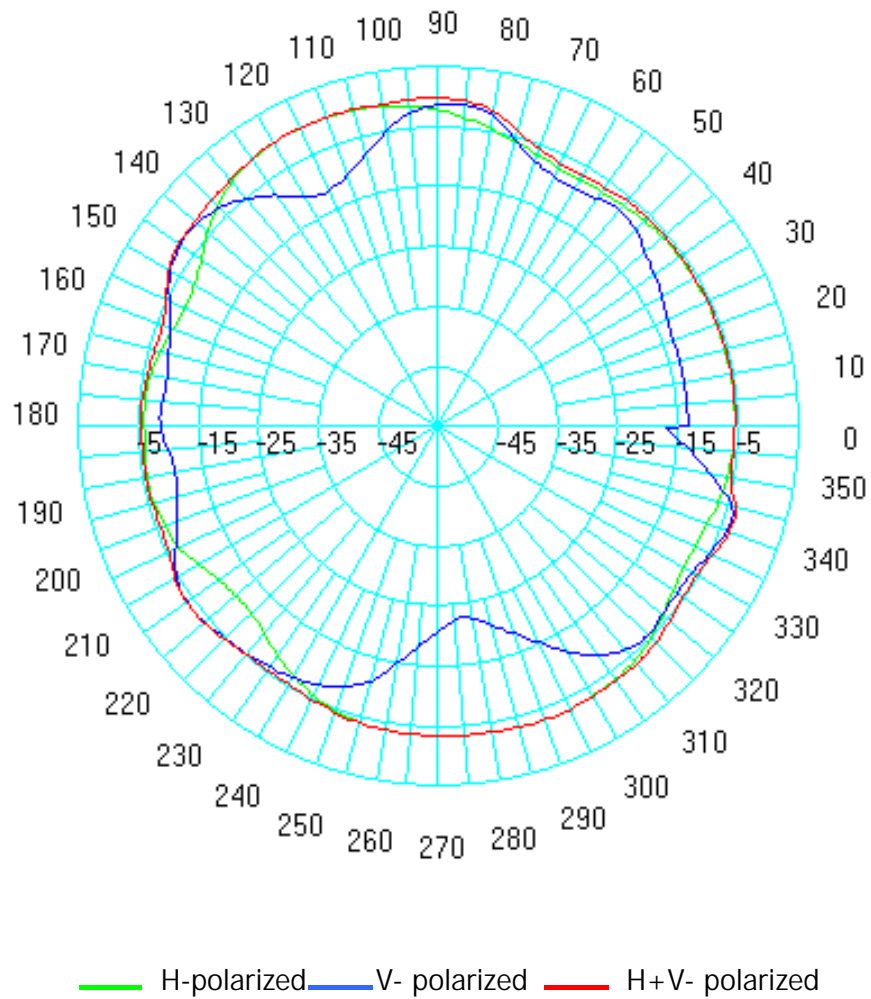
— H-polarized — V- polarized — H+V- polarized

Gain data

Antenna	Gain of XY Plane(Azimuth)-Open		
	Frequency	5.25GHz	
PIFA	H	Peak	-1.38
		Avg.	-9.36
	V	Peak	-2.95
		Avg.	-7.49
	H + V	Peak	-1.37
		Avg.	-5.77
		%> -5dBi	39.88%

4. Gain & PATTERN – W/L / PIFA ANT.

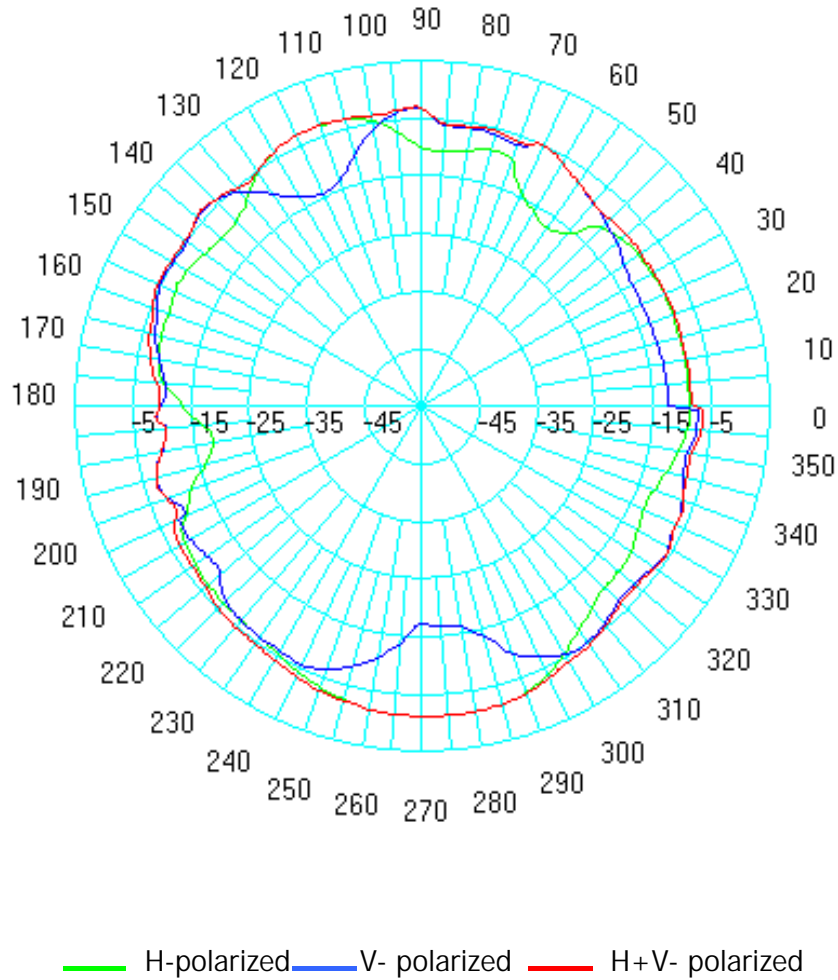
4.1.1 OPEN / 2.45GHz / LCD LEFT UPPER



Gain data

Antenna	Gain of XY Plane(Azimuth)-Open		
	Frequency	2.45GHz	
PIFA	H	Peak	-0.13
		Avg.	-5.34
	V	Peak	-1.19
		Avg.	-8.94
	H + V	Peak	-0.12
		Avg.	-4.02
		%> -5dBi	54.29%

4.1.2 OPEN / 5.25GHz / LCD LEFT UPPER



Gain data

Antenna	Gain of XY Plane(Azimuth)-Open		
	Frequency		5.25GHz
PIFA	H	Peak	-1.11
		Avg.	-8.33
	V	Peak	-3.08
		Avg.	-8.64
	H + V	Peak	-1.11
		Avg.	-5.64
		%> -5dBi	40.17%

5. Technical Specification

● **Frequency (Beam Width) : 2.40 GHZ – 2.50 GHZ &
5.15 GHZ – 5.35 GHZ**

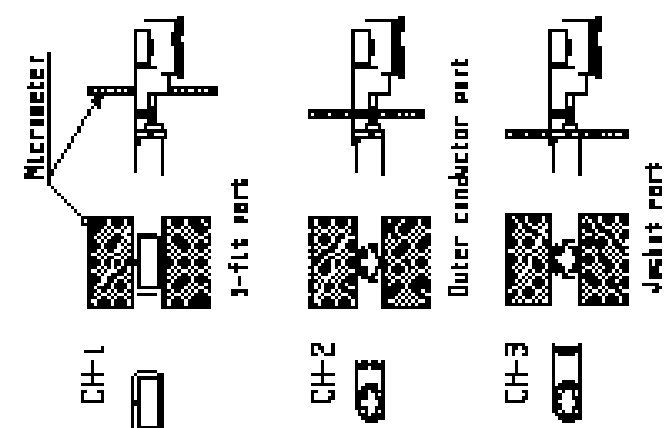
● **Return Loss : -10 dB**

● **VSWR : 2.0**

● **Peak Gain : 3 dBi**

● **Average Gain : -5 dBi**

Part No.	2027-1108-00 2027-1108-00	2027-1018-03 2027-1118-03	2027-1018-03 2027-1118-03	2027-1018-02 2027-1118-02	2027-1018-01 2027-1118-01
Applicable cable nominal diameter	2.00±0.1 1.50±0.1	2.00±0.1 1.50±0.1	1.50±0.1 0.62±0.1 1.70±0.1	2.00±0.1 1.50±0.1	2.00±0.1 1.50±0.1
Shielded shield of Outer conductor	Single / 100%	Single / 100%	Single / 100%	Double / 200%	Single / 100%
P/N of Hand Tool	Under development	Under development	80187-033 50213-019	Under development	Under development
Sect. M-M					
Sect. L-L					
Crimp Height	DH-1	Under development	1.34-1.40	Under development	Under development
	DH-2	Under development	1.00-1.14	Under development	Under development
	DH-3	Under development	1.15-1.35	Under development	Under development



Crimp Height

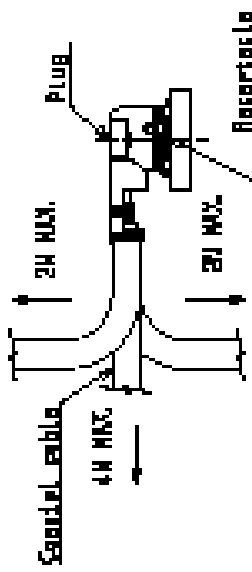
I-PEX <small>Advanced and Protected Film Technology</small>		DATE	
TITLE: MF 10118 ALUM CONDUCTOR crimping plug vertical		DATE	
CUSTOMER: BAY		DATE	
SHEET: 01-03		DATE	
REV: 20278		DATE	

Notes

1. Material
 (1) Housing : PBT, UL94V-0, black
 (2) Contact
 phosphor bronze
 gold plating
 (3) Brass contacts
 phosphor bronze, gold plating
 2. Packings : red
 3. Mating partner part No.
 : 20279-001E-01

1. 材料
 (1) ハウジング : PBT, UL94V-0, 黒色
 (2) コネクタ
 黄銅
 金めっき
 (3) ブラッスク
 黄銅
 金めっき
 2. パッキン : レッド
 3. マチングパートナー番号
 : 20279-001E-01

4. Permissible lead of cable at mating コネクタから合端までのケーブルの許容長さ



5. Suggestions for mating & unmating operation.

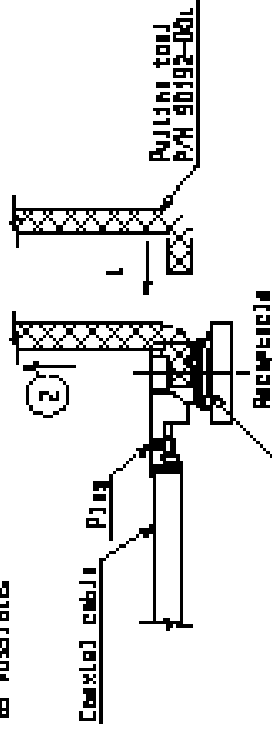
5-1 Mating.
 Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle.
 An excessive blunt angle might break the connector. Please don't do it.

5-1 コネクタの挿入時
 PlugとReceptacleを直線的に合わせ、なるべく垂直方向に挿入して下さい。
 コネクタの挿入時に、プラグとレセプタクルの軸を調整して下さい。
 コネクタの挿入時に、過度な鋭角の挿入は、コネクタを壊す原因になりますので、避けて下さい。

5. Suggestions for mating & unmating operation.

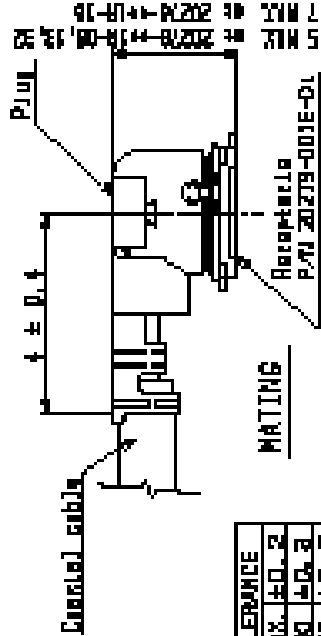
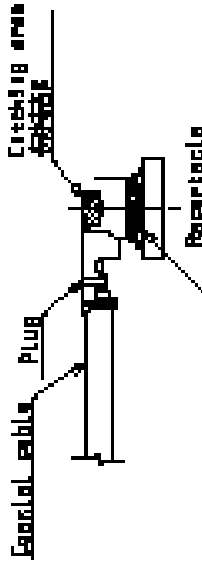
5-2 Unmating.

- (1) In case of un mating by pulling tool,
 Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.



- (2) In case of un mating directly by hand
 Please catch the catching area of plug, and please pull plug to vertical direction as directly as possible.

(2) 手で直接抜く場合は
 プラグの引っ掛け部分をつかみ、なるべく垂直方向に引っ掛けて下さい。



GENERAL TOLERANCE	
R MAX.	±0.2
S OVER MAX.	±0.3
SO OVER MAX.	±0.5
CABLE SIZE	1.57

COMPANY	DATE		Advanced and Precision Connector Division TOKYO, JAPAN
REV. OF	DATE		TITLE
REV. OF	DATE		MIF carbon wire contact connector plug vertical
CUSTOMER COPY	DRAWING NO. 20279	DATE 9.19.88	REV. 08

TO: 高頻線
 FROM: 保通高頻

KURABE INDUSTRIAL CO., LTD

SP3630M-X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022) UL 1979	PAGE	
PRODUCT STANDARD		ISSUED	11-12-2001
		REVISED	18-3-2002

1. SCOPE

This standard covers "FEP insulated High-Frequency coaxial cable".

These cable are approved by UL as Style 1979 AWM (File E-46702)

[UL1979:105°C, 30V]

Use: Internal wiring of Class 2 Circuits of Electronic Equipment.

2. CONSTRUCTION

Construction and dimensions of the cable are shown in Figure.1 and Table 1.

3. PERFORMANCE

Performance of the finished cable is shown in Table 2. The test methods are in accordance with applicable test methods described in JIS C 3005.

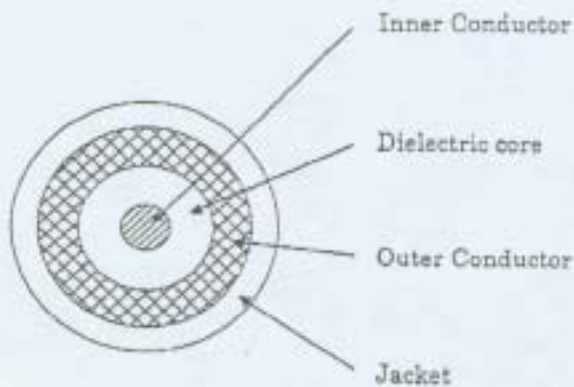


Figure 1.

NOTE :	MADE BY	J. Aki
	APPROVALS	J. Hasegawa

KURABE INDUSTRIAL CO., LTD

SP3830M-X	FEP INSULATED HIGH-FREQUENCY COAXIAL CABLE (FWS 5022) UL 1979	PAGE	
PRODUCT STANDARD		ISSUED	11-12-2001
		REVISED	18-3-2002

Table 1. Construction

Item	Unit	Specified Value
Inner Conductor	Material	Silver coated annealed copper wire
	Stranding	No./mm 7/0.08
	Dia.(approx.)	0.24
Dielectric Core	Material	FEP
	Thick.(nom.)	mm 0.22
	Dia.	mm 0.68±0.05
	Color	Natural
Outer Conductor	Material	Silver coated annealed copper wire
	Type	Braid (16/4/0.05)
	Dia.(approx)	mm 0.93
Jacket	Material	FEP
	Thick.(nom.)	mm 0.10
	Dia.	mm 1.13 +0.10/-0.06
	Color	Standard colors are white,black,blue,brown,and gray.

Table 2. Performance

Item	Unit	Specified Value	Note
Appearance	—	Faultless in visible	—
Inner conductor resistance	Ω /km	Max.597	at 20°C
Insulation resistance	M Ω ·km	Min.1500	at 20°C
Dielectric strength	—	Dielectric core: No breakdown at AC1.5kV for 0.15sec.	Spark test
		Jacket: No breakdown at AC1.5kV for 0.15sec.	Spark test
		No breakdown at AC500V for 1min.	Outer conductor to inner conductor
Heat resistance for solder	—	Shrink or expansion of dielectric core are not more than 0.5mm	※
Capacitance	pF/m	nom. 98	at 1kHz
Characteristic impedance	Ω	50±2	TDR method
Attenuation (nom.)	dB/m	2.0	1.0GHz
		2.9	2.0GHz
		3.6	3.0GHz
		4.2	4.0GHz
		4.7	5.0GHz
		5.2	6.0GHz

※ After immersion of dielectric core, 10mm into soldering pot which is 255°C±5°C for 5 seconds, shrinkage or expansion of the dielectric core must not exceed 0.5mm.

NOTE :

MADE BY

T. Saki

APPROVALS

T. Hasegawa

계약 번호 : STP3C2PFA
 주문 번호 : ST3-89070KD
 품명 : TIN PLATE COIL
 계약 품 규격 : JISG3303 SPT8-HK33



포항강철주식회사
 POHANG IRON & STEEL CO., LTD
 (POHANG KOREA)
 1-1 KANGSANG-DONG KANGSANG CITY YONGIN-GU GYEONGGI-DO KOREA

중명서 번호 : 991223-CXK-010-001
 CERTIFICATE NO : 991223-CXK-010-001
 발행 일자 : DEC. 23. 1999
 DATE OF ISSUE :

수요자 : BEANG TRADING CO. LTD
 CUSTOMER : BEANG TRADING CO. LTD
 주문자 : SEANSTONS CORPORATION
 SUPPLIER : SEANSTONS CORPORATION

제품 치수 DIMENSIONS	수량 QTY	중량 HEIGHT (KG)	시차번호 CHANGE NO	제품번호 PRODUCT NO	인장 시험 TENSILE TEST			코팅 COATING			화학적 성분 CHEMICAL COMPOSITION (%)	비율 RATIO			
					YP	TS	EL	SW	SK	MA3CZ			C	Si	Mn
0.25X926XC	1	4,100	68809	3TFL0274	0			3.24	3.21	59.0	200	TR	22	13.12	XX
	1	4,110	"	3TFL0275	0			"	"	"	"	"	"	"	XX
	1	3,920	"	3TFL0276	0			"	"	"	"	"	"	"	XX
	1	4,560	"	3TFL0277	0			"	"	"	"	"	"	"	XX
	1	4,310	68814	3TFL0278	0			3.07	3.11	54.9	200	TR	23	13.11	XX
	1	4,200	"	3TFL0279	25,200 (KG)			"	"	"	"	"	"	"	XX
	1	4,170	70187	3TFL0336	25,200 (KG)			3.17	3.34	57.4	300	S	23	15.8	XX
	1	3,420	"	3TFL0337	"			"	"	"	"	"	"	"	XX
	1	4,660	"	3TFL0338	"			"	"	"	"	"	"	"	XX
	1	4,310	"	3TFL0339	"			"	"	"	"	"	"	"	XX
	1	4,110	"	3TFL0340	"			3.08	3.26	55.4	"	"	"	"	XX
	1	4,170	"	3TFL0341	"			"	"	"	"	"	"	"	XX
	1	4,270	"	3TFL0342	"			"	"	"	"	"	"	"	XX
	1	4,060	"	3TFL0343	"			"	"	"	"	"	"	"	XX
	1	4,170	"	3TFL0344	"			3.18	3.31	54.2	"	"	"	"	XX
1	4,270	"	3TFL0345	"			"	"	"	"	"	"	"	XX	
1	4,230	"	3TFL0346	"			"	"	"	"	"	"	"	XX	
1	3,850	"	3TFL0347	"			"	"	"	"	"	"	"	XX	
*** SUB TOTAL (020) ***		12		49,690 (KG)											
*** SUB TOTAL (030) ***		16		74,890 (KG)											
*** GRADE TOTAL ***															

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE BY THE BASIC SIGNATURE
 OF THE PROCESS AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION
 AND ALSO WITH THE REQUIREMENTS CALLED FOR BY THE ABOVE ORDER.

SIGNATURE: *P. Kim*

CITY OF PRODUCTS INDUCTION SECTION



華友材料科技股份有限公司

Sumi-Pac Corp.

應用高分子製品事業部

台北市忠孝東路四段 285 號 6F
6F, 285 Chung Hsiao East Road, Section 4
Taipei, Taiwan, R.O.C.
TEL:(02)2776-2083 FAX:(02)2776-2084

TO : MRS.

DEC. 20, 2000

MATERIAL CERTIFICATION

WE CERTIFY HEREBY THAT SUMITUBE, MANUFACTURED BY "SUMIPAC CORPORATION", DOES NOT CONTAIN ANY ODCs (OZONE-DEPLETED MATERIALS), AND NEVER CONTAIN ODC's DURING MANUFACTURING PROCESS. BESIDES, SUMITUBE F32 CONFORM TO THE REQUIREMENT CONCERNING TOXICITY AS BELOW.

NAME OF PRODUCTS	SUMITUBE F32
MATERIAL GENERIC NAME	IRRADIATED FLEXIBLE HEAT-SHRINKABLE POLYOLEFIN TUBING (UL & CSA, 125 DEG. C AND 600V, VW-1 RATING)
MANUFACTURER	SUMIPAC CORPORATION
TOXICITY	SUMITUBE F32 CONTAINS FREE OF THE FOLLOWING MATERIALS : 1. TOXIC HEAVY METAL 2. BROMINATED MTAERIAL AS BELOW: SOL. BARIUM (BA) PBBES SOL. LEAD (PB) PBBOS SOL. CADMIUM (CD) PBBS SOL. ANTIMONY (SB) SOL. SELENIUM (SE) SOL. CHROMIUM (CR) SOL. MERCURY (HG) SOL. ARSENIC (AS) , AND ASBESTOS

Hsi Ling Yu
HSI LING YU
MANAGER
SUMIPAC CORPORATION



YDPU2 July 20, 1994
 Component - Extruded Tubing, Electrical

**SUMITOMO ELECTRIC INDUSTRIES LTD
 IRRADIATED PRODUCTS DIV**

E48762 (S)
 (C-cont. from B card)

Irradiated flexible heat shrinkable polyolefin.						
Sumitube F32	800	125	I	+	—	Yes
826 or	600	125	I	+	—	Yes
Sumitube B2						
Sumitube F5	600	125	I	+	—	Yes
939 or	600	105	I	+	—	Yes
Sumitube F(Z)						
940 or	600	125	I	+	—	Yes
Sumitube F2(Z)						
942 or	300	125	I	+	—	Yes
Sumitube F4(Z)						
958 or SM12	600	125	I	+	—	Yes
963 or SM23	600	125	I	+	—	Yes
938 or	600	105	II	+	—	Yes
Sumitube F(TZ)						

Report: February 16, 1973.

Replaces E48762C dated June 21, 1994.
 390139001 N3228 Underwriters Laboratories Inc.®

(Cont. on D card)
 011/0010143