

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		

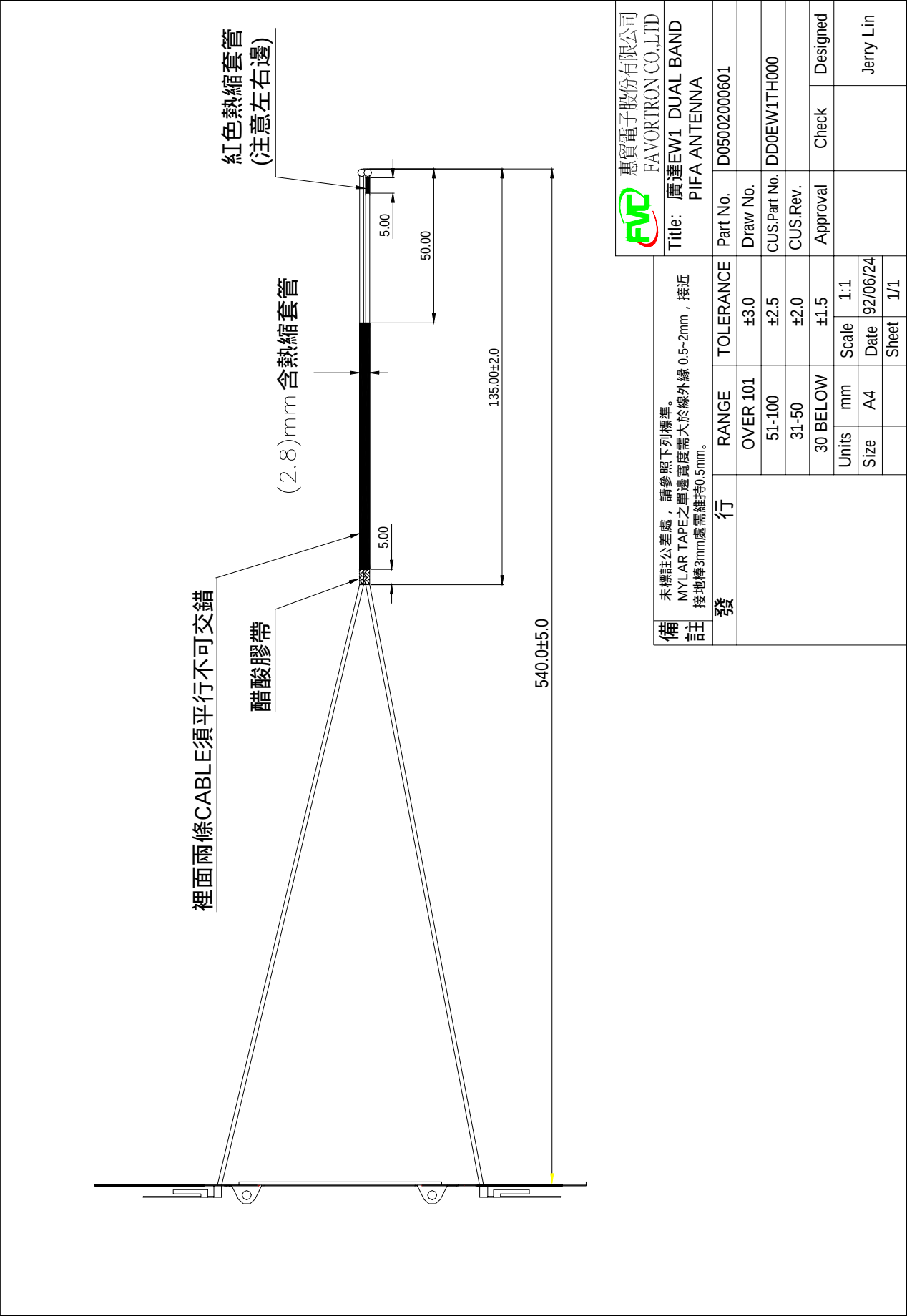


惠貿電子股份有限公司
FAVORTRON CO., LTD

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



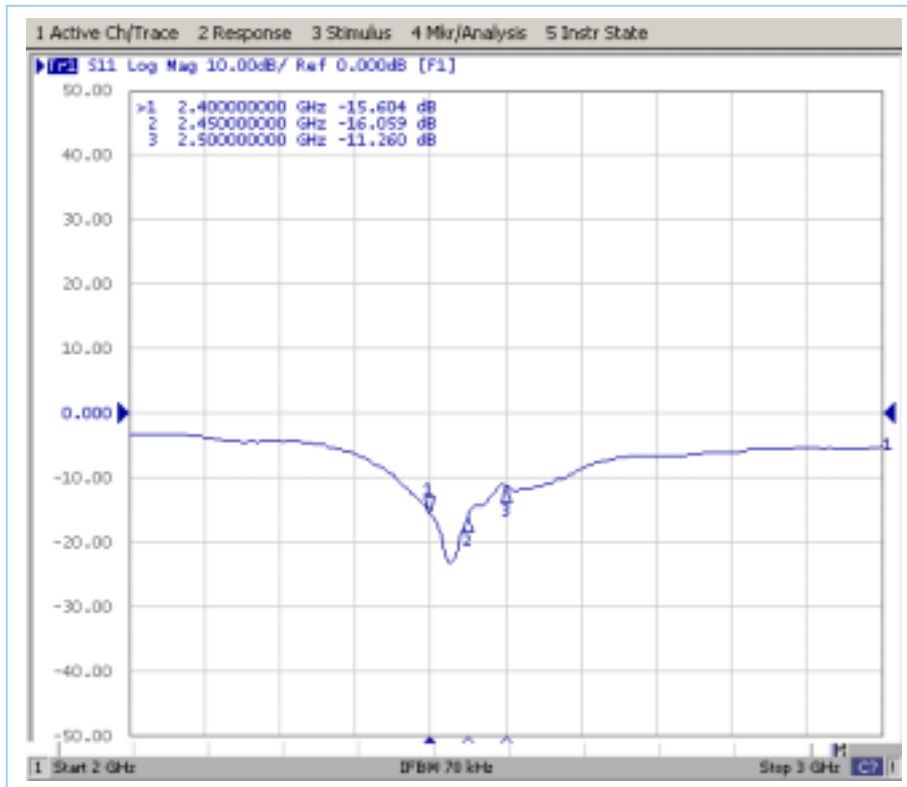
1.2 Drawing of 888z3.0 PCB (Hinge Cover) Antenna

BOM					
ITEM	COMPONENT	Q'TY	DESCRIPTION	FVC P/N	REMARK
1	EW1 PIFA	1	160x4.8x6.3mm	F04001085001	
2	Conn+O1.5 Cable	2	I-pex + 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					
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19					
20					

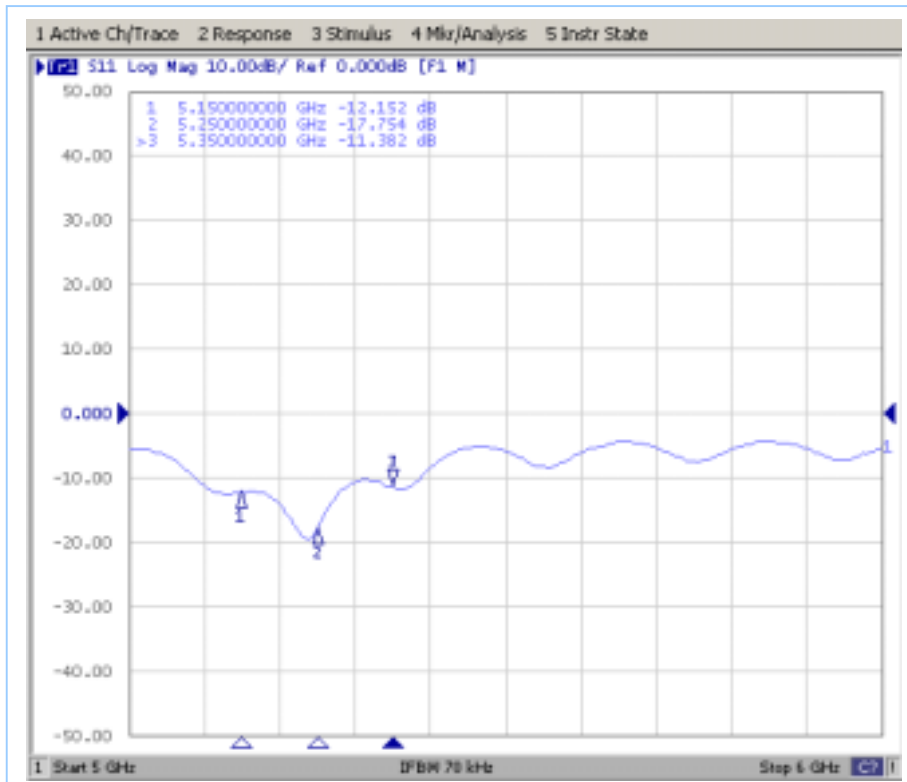
 惠質電子股份有限公司 FAVORTRON CO.,LTD		Title: 廣達EW1 DUAL BAND PIFA ANTENNA			
發 行 備 註	Part No.	D05002000601			
	Draw No.				
	CUS.Part No.	DD0EW1TH000			
	CUS.Rev.				
	Approval	Check	Designed		
			Jerry Lin		
		Date	92/06/24	Sheet	1/1

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

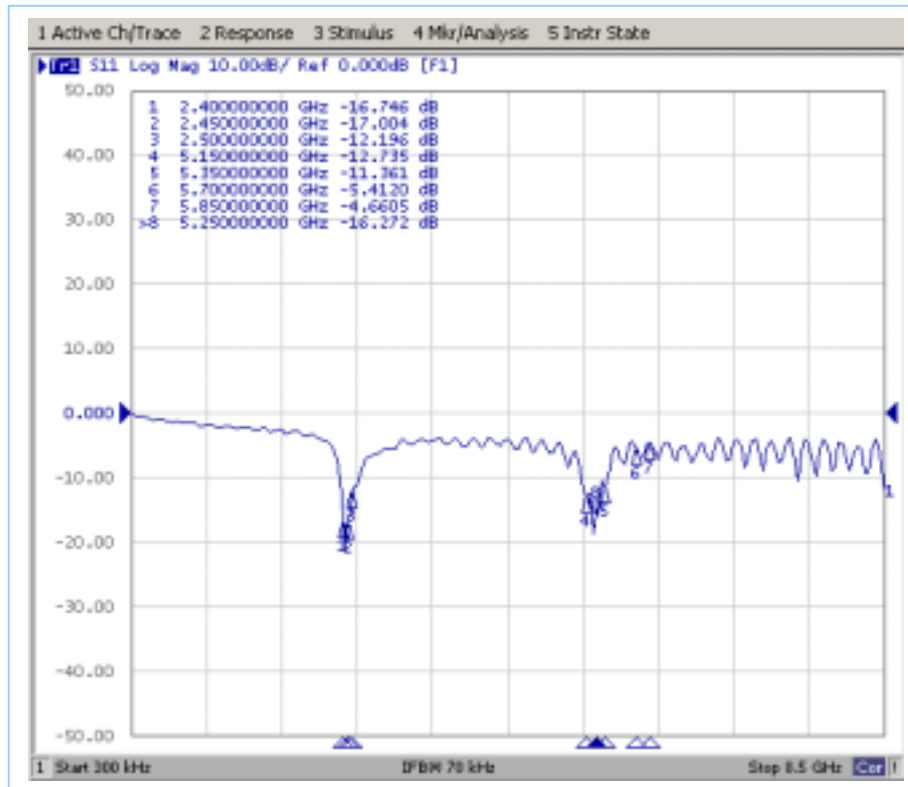
1.1 LCD Right Upper / PIFA ANT. / 2.4~2.5GHz



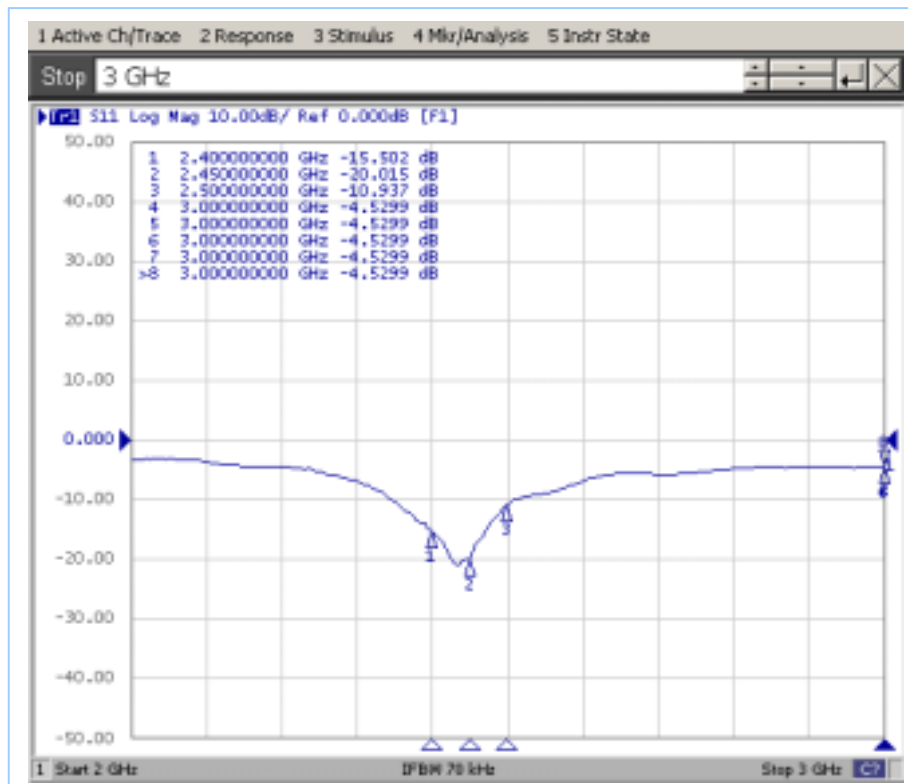
1.2 LCD Right Upper / PIFA ANT. / 5.15~5.35GHz



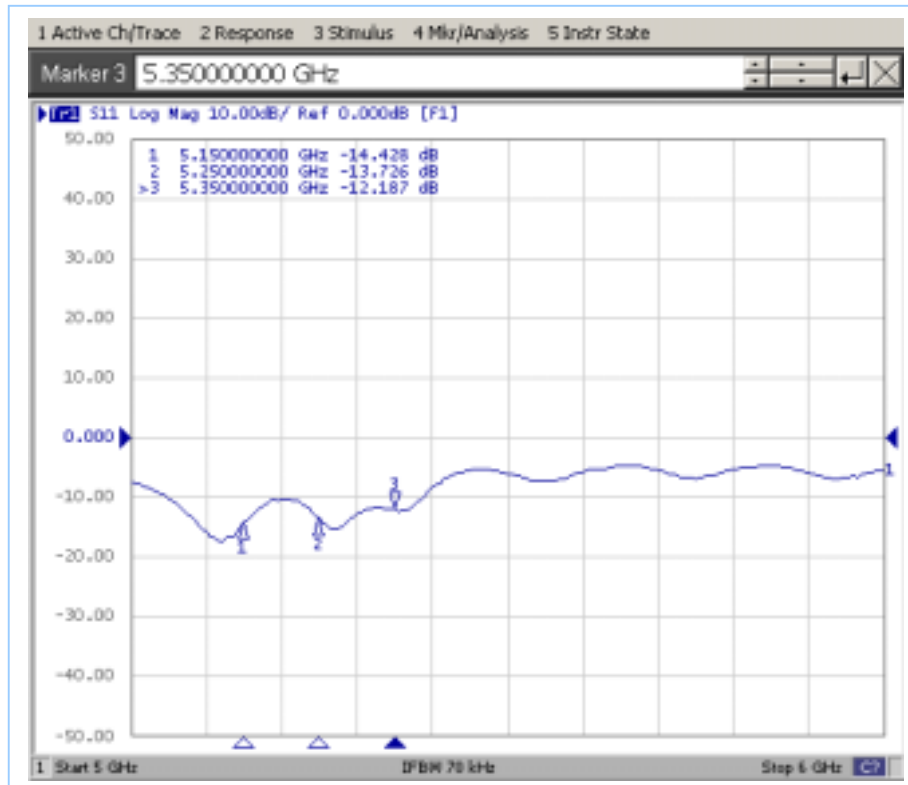
1.3 LCD Right Upper / PIFA ANT. / 2.4~2.5GHz & 5.15~5.35GHz



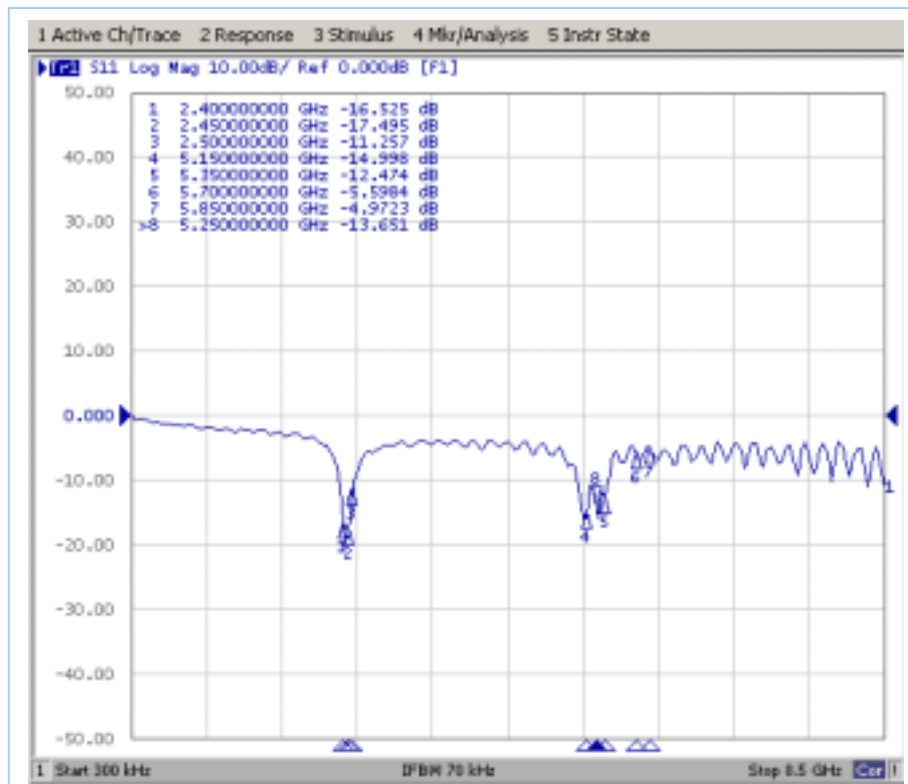
1.4 LCD Left Upper / PIFA ANT. / 2.4~2.5GHz



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

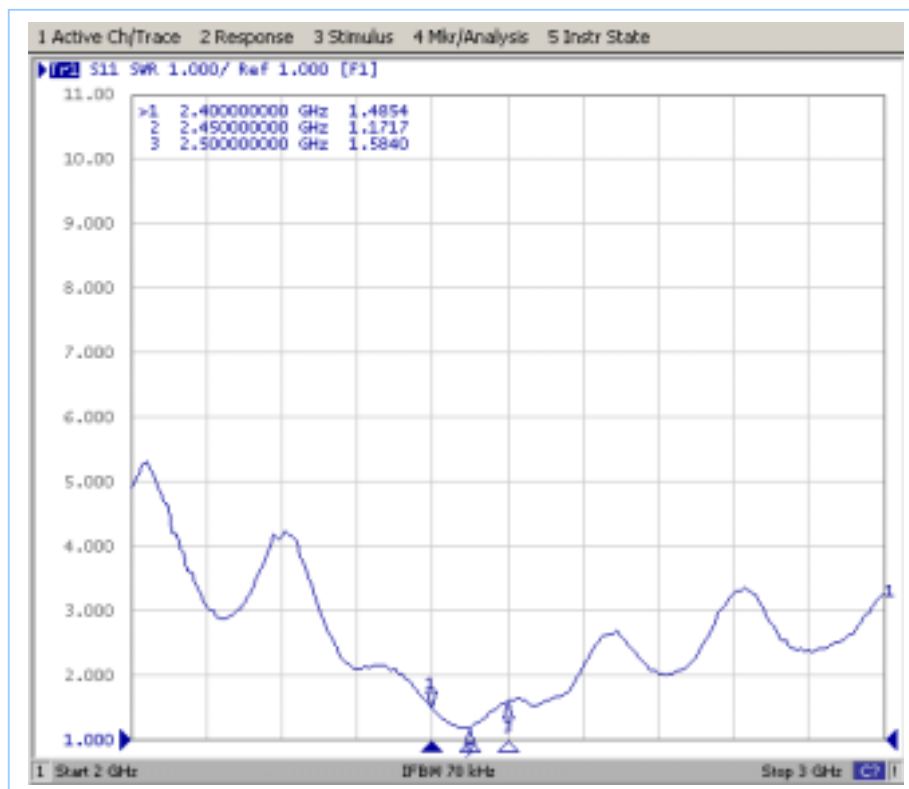


1.6 LCD Left Upper / PIFA ANT. / 2.4~2.5GHz & 5.15~5.35GHz

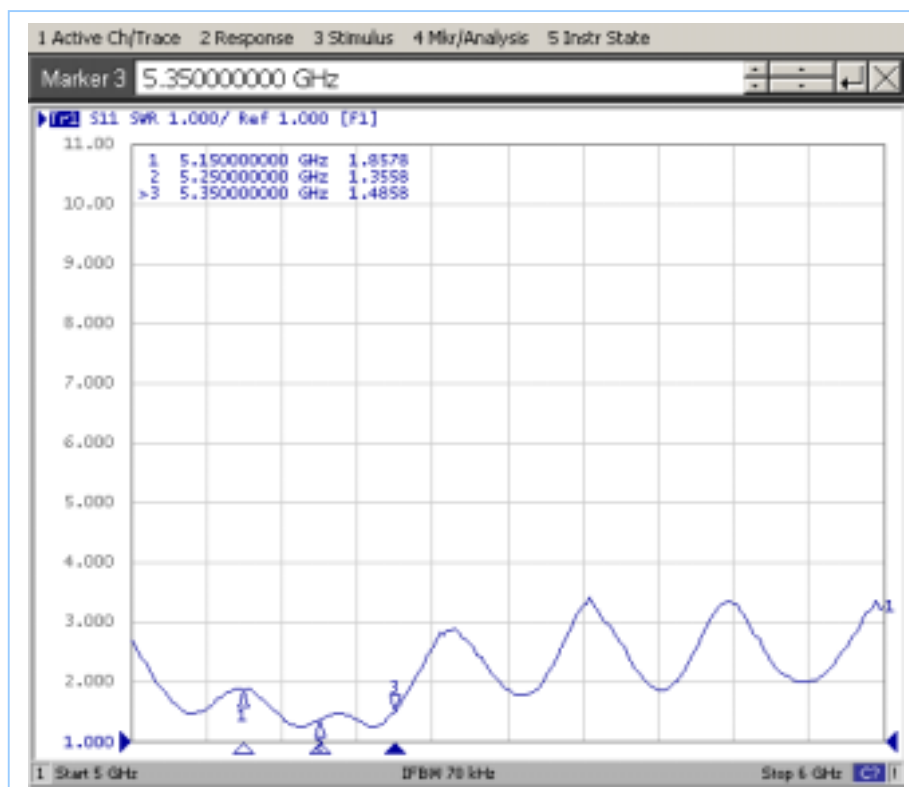


2. BTW30 PVT2 W/L ANT. VSWR In Note Book

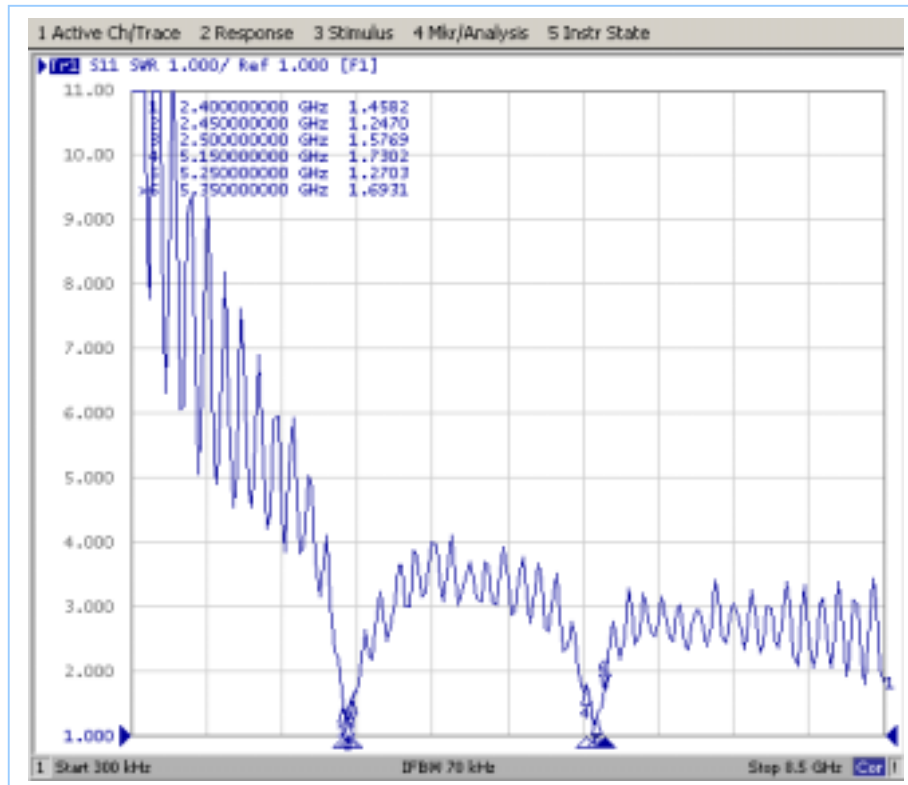
2.1 LCD Right Upper / PIFA ANT. / 2.4~2.5GHz



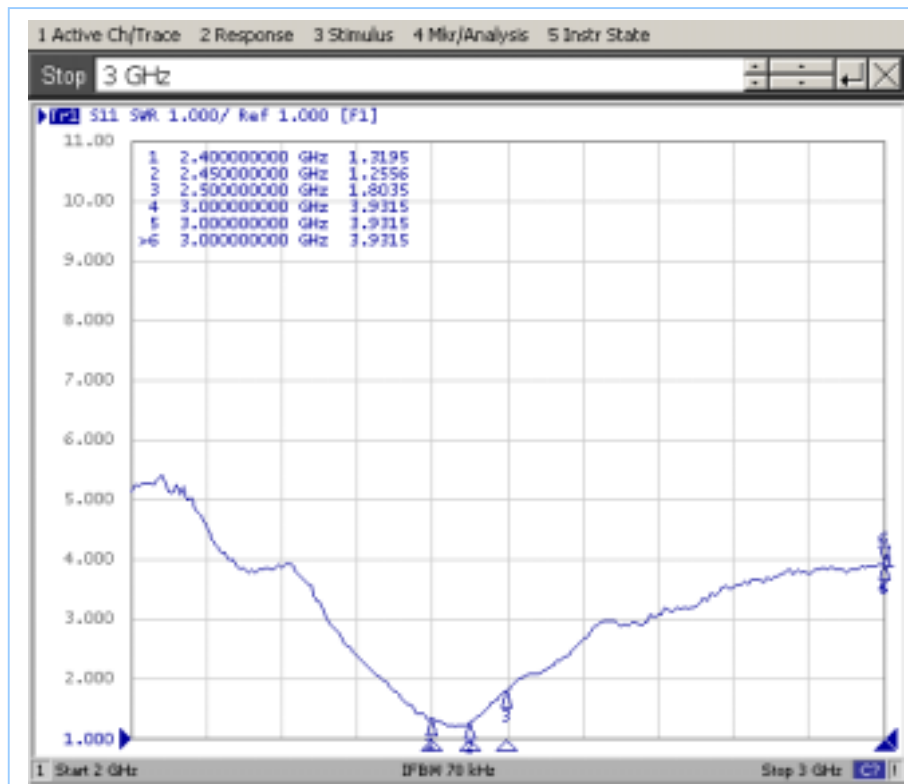
2.2 LCD Right Upper / PIFA ANT. / 5.15~5.35GHz



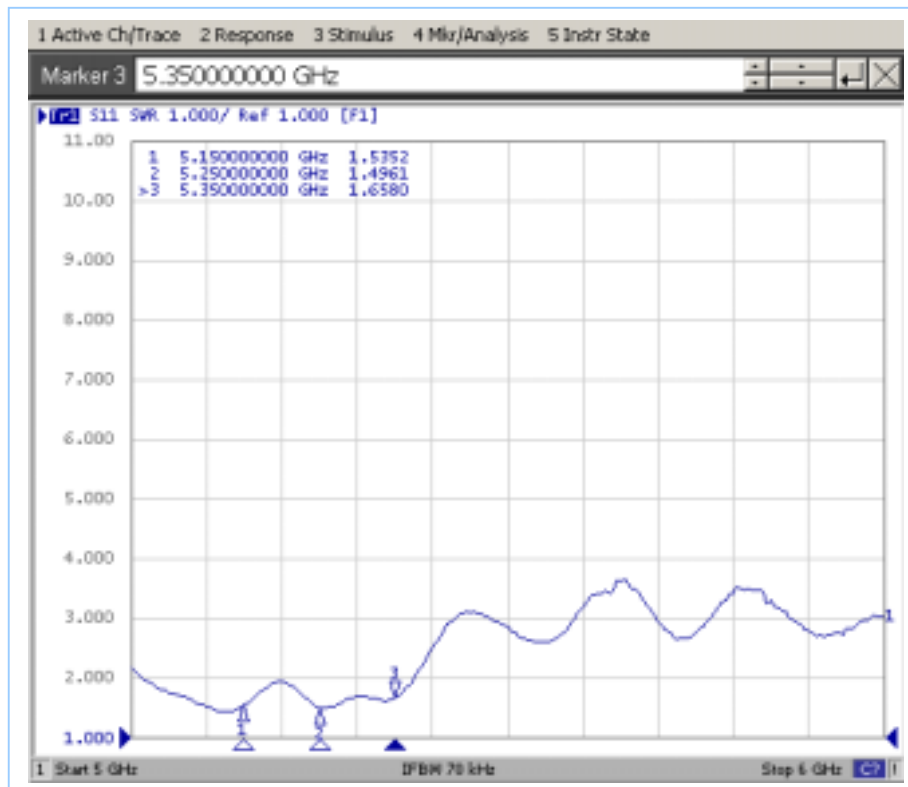
2.3 LCD Right Upper / PIFA ANT. / 2.4~2.5GHz & 5.15~5.35GHz



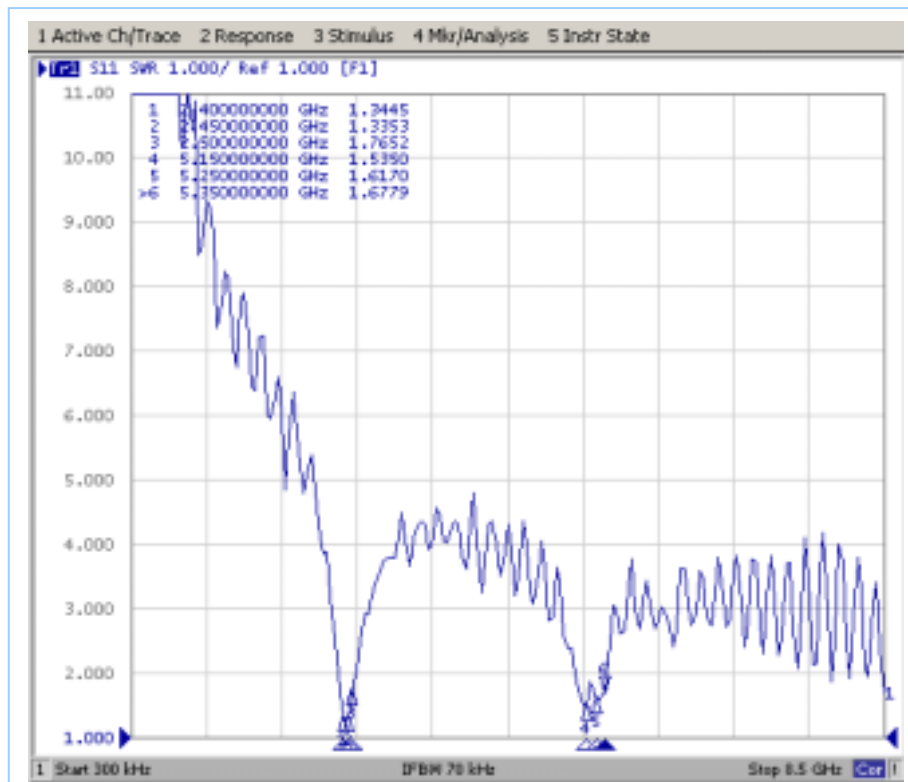
2.4 LCD Left Upper / PIFA ANT. / 2.4~2.5GHz



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

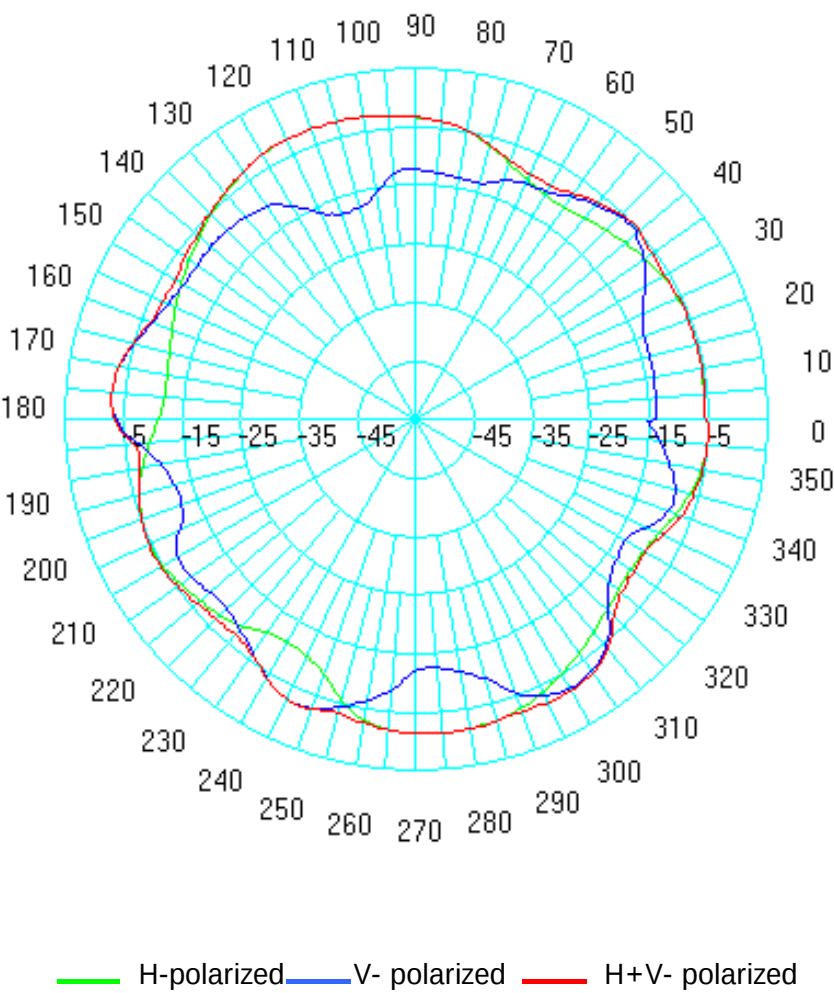


2.6 LCD Left Upper / PIFA ANT. / 2.4~2.5GHz & 5.15~5.35GHz



3. Gain & PATTERN – W/L / PIFA ANT.

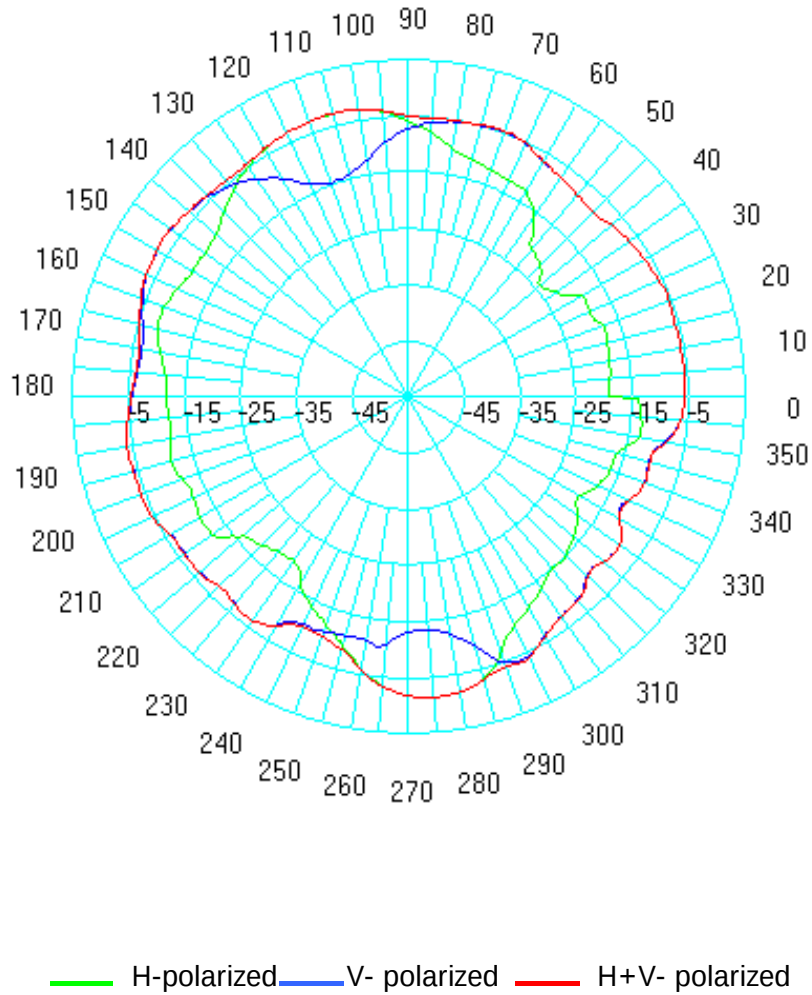
3.1.1 OPEN / 2.45GHz / LCD RIGHT UPPER



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

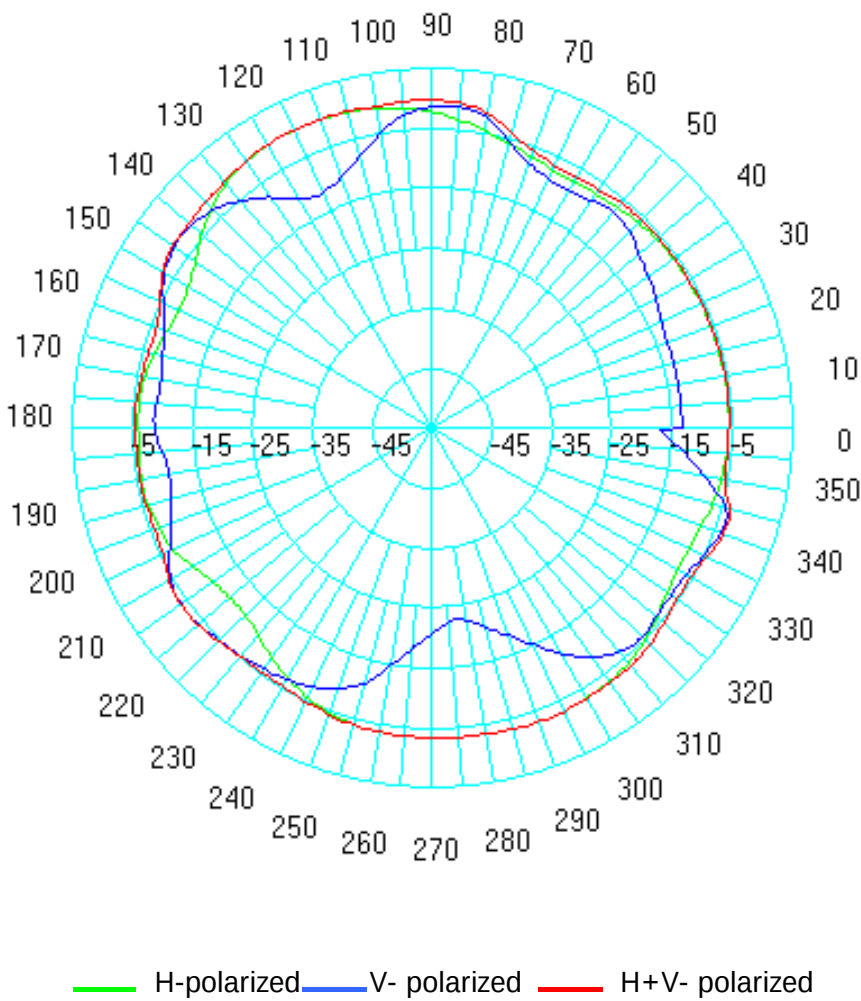


Gain data

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.

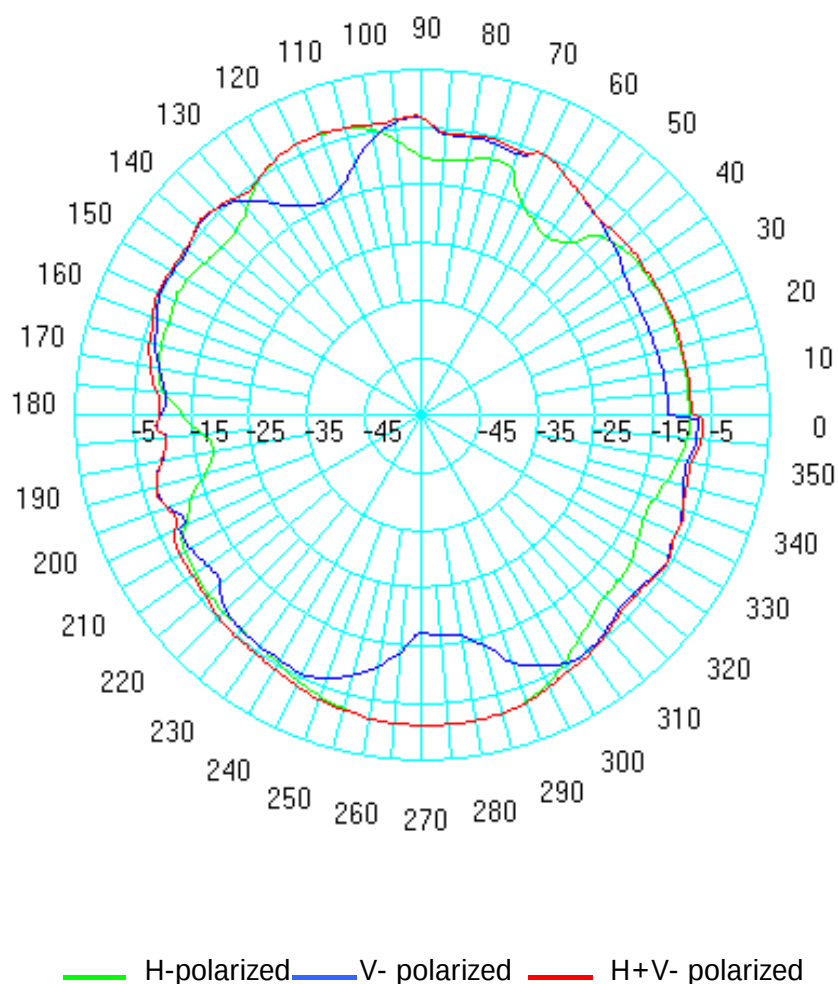
4.1.1 OPEN / 2.45GHz / LCD LEFT UPPER



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.	20278-1118-00 20278-1118-00	20278-1118-10 20278-1118-10	20278-1118-20 20278-1118-20	20278-1118-30 20278-1118-30
Applicable cable nominal diameter	2.00±0.1 1.50±0.1 1.25±0.1 1.00±0.1 0.75±0.1 0.50±0.1 0.25±0.1 0.125±0.1 0.0625±0.1 0.03125±0.1 0.015625±0.1 0.0078125±0.1 0.00390625±0.1 0.001953125±0.1 0.0009765625±0.1 0.00048828125±0.1 0.000244140625±0.1 0.0001220703125±0.1 0.00006103515625±0.1 0.000030517578125±0.1 0.0000152587890625±0.1 0.00000762939453125±0.1 0.000003814697265625±0.1 0.0000019073486328125±0.1 0.00000095367431640625±0.1 0.000000476837158203125±0.1 0.0000002384185791015625±0.1 0.00000011920928955078125±0.1 0.000000059604644775390625±0.1 0.0000000298023223876953125±0.1 0.00000001490116119384765625±0.1 0.000000007450580596923828125±0.1 0.0000000037252902984619140625±0.1 0.00000000186264514923095703125±0.1 0.000000000931322574615478515625±0.1 0.0000000004656612873077392578125±0.1 0.00000000023283064365386962890625±0.1 0.000000000116415321826934814453125±0.1 0.0000000000582076609134674072265625±0.1 0.00000000002910383045673370361328125±0.1 0.000000000014551915228366851806640625±0.1 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0.001401298464324817061424300537109375000000001307312282748520396093750937509584558203125±0.1 0.0007006492321624085307121502685546875000000006536561413742601980468750937509584558203125±0.1 0.000350324616081204265356075134277343750000000032682807068713009902343750937509584558203125±0.1 0.0001751623080406021326780375671386718750000000163414035343565049511718750937509584558203125±0.1 0.00875811540203010663390187835693359375000000081707017671782524755878906250937509584558203125±0.1 0.00437905770101505			

L. Material
[1] HAWKING : PBT , UL94V-0 , BLACK
[2] CONTACT

1. Material
 (1) Housing : PBT, UL94V-0, black
 (2) Contact
 phosphor bronze
 gold plating
 (3) Ground contact
 phosphor bronze, gold plating
 2. Packing : reel
 3. Mating partner part No.
 : 2029-001E-01

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

Please note the connector stretches to vertical direction as much as possible, adjusting the setting value of plug and receptacle.

- 5-1 コナツの学園入会
PlumbとRoccapettoの組合せで、
イヌはひまわりを輸入して下駄。
コナツの学園入会が行なわれていま
い。コナツの学園が原因となりまして、
お話を進めていきます。

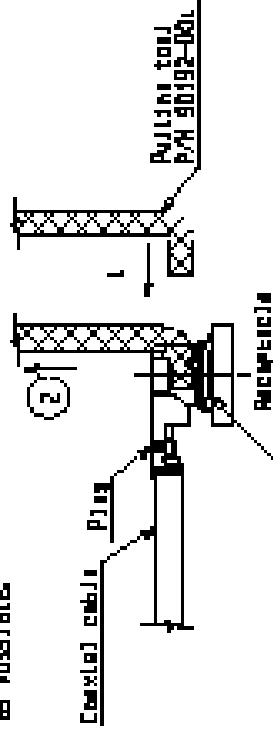
PLUとRPOの間に1000人、1000台の車を
いざというときに購入して下され。
このための購入は行わない下さい。
このための購入は行わない下さい。 国産車に
このための購入は行わない下さい。

-

第 5 卷 第 2 期

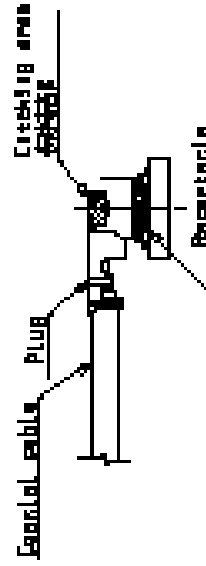
- [1] In case of unloading by pulling tool, please use the pulley tool as the following drawing and please pull plug to vertical direction as directly as possible.

- 【1】 蘇聯科學院



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

- (2) 手動開閉機構の場合
下層の閉鎖機構にかゝる。これは
閉鎖機構にのみ閉鎖、手動による



WARRANTY DATE: _____ BY: _____ FOR: _____  Service and Protection of Investment		Model WIF and/or other compatible connector plus version)		Part 210278		Rev 9/09 08	
Customer Name _____ Address _____ City _____ State _____ Zip _____		Invoice No. _____ Date _____		Order No. _____ Date _____		Ship To _____ Date _____	

70-高頻 糸's
 100A-保用 糸's

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.

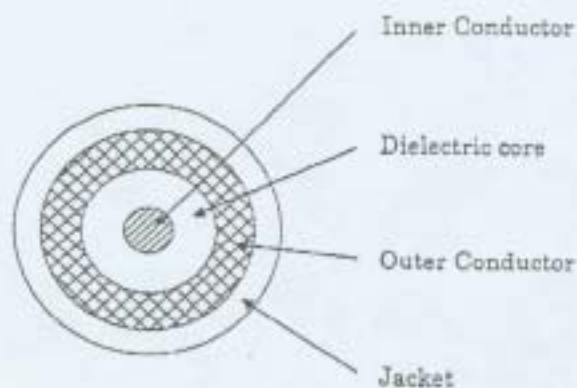


Figure 1.

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
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Table 1. Construction

Item	Unit	Specified Value
Inner Conductor	Material	Silver coated annealed copper wire
	Stranding	No./mm
	Dia.(approx.)	7/0.08
Dielectric Core	Material	FEP
	Thick.(nom.)	mm
	Dia.	mm
	Color	Natural
Outer Conductor	Material	Silver coated annealed copper wire
	Type	Braid (16/4/0.05)
	Dia.(approx)	mm
Jacket	Material	FEP
	Thick.(nom.)	mm
	Dia.	mm
	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	$M\Omega \cdot \text{km}$	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 $255^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5 seconds, shrinkage or expansion of the dielectric core must not exceed 0.5mm.

NOTE:

MADE BY

APPROVALS

T. Saki

T. Hasegawa



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

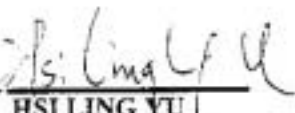
TO : MRS.

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 MATERIAL AS BELOW: SOL. BARIUM (BA) PBBES SOL. LEAD (PB) PBBOS SOL. CADMIUM (CD) PBBBS SOL. ANTIMONY (SB) SOL. SELENIUM (SE) SOL. CHROMIUM (CR) SOL. MERCURY (HG) SOL. ARSENIC (AS) AND ASBESTOS


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	800	125	I	+	—	Yes
Sumitube B2						
Sumitube F5	800	125	I	+	—	Yes
939 or	800	105	I	+	—	Yes
Sumitube F(Z)						
940 or	800	125	I	+	—	Yes
Sumitube F2(Z)						
942 or	300	125	I	+	—	Yes
Sumitube F4(Z)						
958 or SM12	800	125	I	+	—	Yes
963 or SM23	800	125	I	+	—	Yes
938 or	800	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)
 DIV0010143